EMERSON ELECTRIC CO.

PRE-DESIGN REPORT – SEEPS

FORMER EMERSON POWER TRANSMISSION FACILITY, ITHACA, NEW YORK
SITE NO. 755010

JUNE 23, 2023

PRE-DESIGN REPORT - SEEPS

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EMERSON ELECTRIC CO.

PROJECT NO.: 31405608.001
DATE: JUNE 2023

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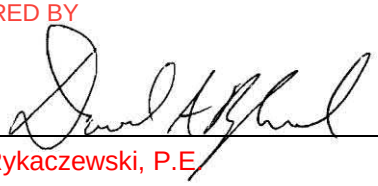

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PROFESSIONAL ENGINEER CERTIFICATION

I, David Alan Rykaczewski, certify that I am currently a New York State Registered Professional Engineer as defined in 6 NYCRR Part 375 and that this Pre-Design Study Report for the former Emerson Power Transmission facility in Ithaca, New York, was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

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1 INTRODUCTION

On behalf of Emerson Electric Co., WSP USA, Inc. (WSP) has prepared this Pre-Design Study Report summarizing the results of the pre-design study for the seeps located at the former Emerson Power Tranmission Corp. (EPT) facility (Site No. 755010) in Ithaca, New York (Figure 1-1). The activities described herein were performed in general accordance[1] with a Pre-Design Study Work Plan (work plan), dated May 7, 2021. Additional requests made by the New York State Department of Environmental Conservation (NYSDEC) in a letter dated August 5, 2021, were later incorporated into the study.

The Site is currently in the New York State Superfund Program, Site No. 755010, which is administered by the NYSDEC. Emerson and EPT entered into an Order on Consent (No. A7-0125-87-09), on July 12, 1987 with the NYSDEC to remediate the Site. Based on results obtained during additional investigations conducted at the Site, the NYSDEC issued a December 1994 Record of Decision (ROD), a June 2009 ROD Amendment, and a 2021 ROD Amendment (AROD).

The Phase II Supplemental Remedial Investigation (SRI) completed in 2017 identified several constituents of concern (COCs) in various media across the Site including groundwater seeps. The Feasibility Study, dated August 12, 2020, recommended remedies to address three seeps identified as "Building 24 Seep", "Weir Box Seeps", and "Retaining Wall Sump" (Figure 1-2), collectively referred to as "Seeps". The COCs associated with the Seeps, based on exceedances of the New York State Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values (1998) for Class GA groundwater, are chlorinated volatile organic compounds (CVOCs). The recommended alternative to address COCs in the Seeps was through collection, treatment, and discharge and included:

- collection and routing of the Seeps to the existing groundwater IRM system for treatment and subsequent discharge in accordance with the State Pollutant Discharge Elimination System (SPDES) permit equivalent (PE; refer to Section 2 for further detail);
- water quality monitoring of the discharge in accordance with the PE;
- other ancillary components, such as data evaluation and reporting, acquiring the applicable permits/approvals, and other conditions required by the PE.

The FS included provisions to complete pre-design studies for the Seeps, the results of which would be used to modify the recommended remedial alternative, if warranted based on the results of the studies.

This report provides the results of the samples collected during the Pre-Design Studies and the data evaluation to justify the selected remedial alternatives for the Seeps. Section 2 provides background information and data for the Seeps, details the scope of sampling activities performed pursuant to the work plan, and presents the results of the study. Section 3 summarizes the pertinent findings, presents the recommended alternatives, and provides supporting evidence for the recommended alternatives for the Seeps. After NYSDEC approval of the recommended alternatives, WSP will proceed with the design phase to address the Seeps.

[1] Certain activities could not be performed as described in the work plan. Modified actions are described in this Pre-Design Study Report.

2 PRE-DESIGN STUDY ACTIVITIES AND FINDINGS

This section presents the pre-design study objectives, sampling and flow measurement procedures, and analytical results associated with the Building 24 Seep, the Weir Box Seeps, and the Retaining Wall Sump. The overall sampling and flow measurement program included monitoring at each of the following locations (also shown on Figure 1-2):

- Building 24 Seep
- Pipe Outlet to Open Ditch 1
- Open Ditch 1 Bypass to Outfall 011
- Weir Box Seeps
- Outfall 001
- Lower Wooden Sluice
- Retaining Wall Sump

Figure 2-1 presents schematic flow diagrams illustrating the various contributing sources to the water management systems associated with the Seeps and the sample collection and flow measurement locations identified in the work plan. The sample locations are also shown in plan view in Figure 1-2.

Samples of water were collected from these locations for analysis of volatile organic compounds (VOCs), including site-specific CVOCs and trihalomethanes listed in the PE, on a weekly or biweekly basis over a 3-month period under a variety of precipitation/runoff conditions. Flow measurements or calculated flow estimates were also collected to qualitatively predict the relationship between VOC concentrations and flow under various seep rerouting scenarios described in Section 3. To meet these requirements, sample collection and flow measurements were made on eight occasions between July 1 and early November 2021. No flow was recorded during two proposed periods in August 2021; therefore, no samples were collected on these dates. Flow measurements using a portable level-velocity logger (e.g., Stingray) that was described in the work plan could not be used in open channels or pipe culverts due to the minimum water levels not being maintained (e.g., during dry conditions). Instantaneous flows during the sampling events were estimated using the Area/Velocity or Volume/Time methods described in the work plan.

To aid in the evaluation of runoff and ditch flow conditions following various rainfall events, rainfall data recorded at the nearby Ithaca College weather station were obtained for the following time frames: the three days prior to and the days of the July through November 2021 sampling events as well as two additional dates (in italics below) when the absence of flow did not allow for sample collection from all locations. This data is presented in the following table:

	Total Precipitation (inches)	
Event Date	**3-Days Prior**	**Event Day**
July 1	1.43	0.28
July 8	0.96	0.81
July 21	0.67	0.00
August 2	0.83	0.11
August 17	0.17	1.24
August 25	*0.00*	*0.00*
August 30	*0.00*	*0.00*
September 9	0.83	0.01
September 16	1.64	0.01
November 18	0.00	0.00

The sample analytical results and flow rates for these and other historical events are presented in Tables 2-1 and 2-2 and discussed in the following Sections 2-1 through 2-3. The analytical reports and data validation reports (not previously submitted to NYSDEC) are provided in Appendix A.

The PE monitoring requirements include the following parameters (Appendix B):

- Outfall 01A - various CVOCs (including cis-1,2-DCE, TCE, and vinyl chloride), trihalomethanes (e.g., chloroform, bromodichloromethane, and dibromochloromethane), and free cyanide
- Outfall 001 - barium, lead, mercury, free cyanide, and two CVOCs: tetrachloroethene and TCE

The PE daily maximum limits for the CVOCs for Outfall 001 are as follows.

COC	PE Daily Maximum (µg/l)
Tetrachloroethylene	1
Trichloroethene (TCE)	10

In a letter dated August 5, 2021, the NYSDEC indicated that if water from the Weir Box Seeps, the Retaining Wall Sump, or both could be re-routed to ultimately discharge through Outfall 001 (or another permitted outfall), the discharge must meet the outfall's PE limitations for all COCs. In response, samples were collected from both of these Seep locations on February 10, 2022 and submitted for analysis of barium, lead, mercury, free cyanide, and pH. None of these parameters were detected at elevated concentrations. The results for this event are presented in Table 2-3.

2.1 BUILDING 24 SEEP

The Building 24 Seep currently discharges from a pipe connected to where the seep leaves a weep hole along the base of the building foundation. The pipe is routed through a corrugated high-density polyethylene pipe installed in the open drainage ditch, where it is treated using an activated carbon sock. Water in the open ditch is conveyed via the storm sewer system to a 30-inch corrugated metal pipe (CMP) that discharges at the Pipe Outlet to Open Ditch 1. Water in Open Ditch 1 is captured and conveyed through a 24-inch diameter CMP beneath an access ramp to Building 18, daylights briefly, and is then conveyed through a 24-inch diameter CMP and discharges to the Lower Wooden Sluice at Outfall 011, immediately before the combined flow discharges to an open ditch along South Cayuga Street leading to the City of Ithaca storm sewer system, ultimately discharging to Sixmile Creek.

The need for remedial action at the Building 24 Seep was based on the potential complete exposure pathway to CVOCs at concentrations above the NYSDEC criteria via untreated discharge from the seep to the open drainage ditch adjacent to the building.

2.1.1 INITIAL MONITORING EVENTS

Between 2013 and 2015, cis-1,2-DCE and TCE were reported at varying concentrations in samples collected at the seep. cis-1,2-DCE was present at concentrations from non-detect to 14.4 µg/l, with an average of 6 µg/l, and TCE was reported at concentrations between 13.4 µg/l and 62.8 µg/l, with an average concentration of 38 µg/l (Table 2-1). The documented range of flows during these events was 0.04 gallons per minute (gpm) to 2 gpm. The concentrations and flow rates indicated a reverse correlation: higher concentrations were detected during lower flow events. The data also indicated that higher concentrations were present at the beginning of a flow event as compared to during or at the end of the same event.

Between December 2018 and February 2020, following the excavation of CVOC-affected soil from beneath the Building 24 slab as part of the Soil IRM, additional seep samples were collected. These data (Table 2-1) also indicated higher concentrations during lower flow rates (between less than 0.1 µg/l to 1.75 gpm) but that concentrations had been reduced by the IRM activities with average concentrations of 2.5 µg/l and 15 µg/l for cis-1,2-DCE and TCE, respectively.

In March 2020, periodic water quality monitoring at the Building 24 Seep and at Pipe Outlet to Open Ditch 1 was initiated. Samples were collected on 10 occasions through May 2021 at flow rates varying between less than 0.1 to 4 gpm (Table 2-2). For the Building 24 Seep, the sample results indicated the presence of cis-1,2-DCE and TCE in all samples, lower concentrations with higher flow rates, and continued lower post-IRM average concentrations of 2.6 µg/l and 17.8 µg/l. Although cis-1,2-DCE was only detected in the discharge at the Pipe Outlet to Open Ditch 1 during the highest flow event and TCE was only detected during the two highest flow events, the reported concentrations were below 1 µg/l[2] and well below the groundwater criterion.

[2] Unless otherwise noted: all detection limits were 1 µg/l and all concentrations below 1 µg/l are estimated ("J" flagged).

2.1.2 PRE-DESIGN ACTIVITIES AND FINDINGS

An objective of the work plan was to confirm that CVOC concentrations in the Building 24 Seep were reduced to below the NYSDEC criteria when discharging at the Pipe Outlet to Open Ditch 1 during various precipitation/runoff conditions. If confirmed, the Building 24 Seep could be re-directed entirely below ground to the 30-inch CMP that discharges at the Pipe Outlet to Open Ditch 1.[3] These actions would eliminate the potential for direct contact exposure to elevated CVOC levels in the open drainage ditch west of Building 24 and yield no elevated CVOC levels downstream, including Open Ditch 1.

As required by the work plan, samples and flow measurements were performed at the Building 24 Seep discharge pipe, at the Pipe Outlet to Open Ditch 1, and at the Open Ditch 1 Bypass (Figure 1-2). Samples were collected in July, August, September, and November 2021 during and after various rainfall events.

The results (Table 2-2) indicated the following.

- COCs present in the Building 24 Seep continued to be limited to cis-1,2-DCE and TCE:
  - cis-1,2-DCE was present in all samples at concentrations between 1.3 µg/l and 4.4 µg/l, all below the groundwater criterion
  - TCE was present in all samples at concentrations between 8.6 µg/l and 24.9 µg/l, with all exceeding the groundwater criterion, all less than the surface water criterion, and several exceeding the PE daily maximum for Outfall 001

  The average concentrations of 2.2 µg/l and 12.7 µg/l for cis-1,2-DCE and TCE, respectively, are lower than initially reported and consistent with other, lower post-IRM results.

  The flow rates varied between 0.05 gpm and 13 gpm. Although the rates tended to be higher than recorded historically, the relative concentrations and flows continue to indicate the reverse correlation previously observed (i.e., CVOC concentration decreases as flow increases).
- COCs present in the Pipe Outlet to Open Ditch 1 were limited to TCE and chloroform at concentrations below the groundwater criteria and PE daily maximums:
  - TCE was detected in one sample at 0.82 µg/l
  - chloroform was intermittently detected during higher flow events below 1 µg/l

  The flow rates varied between 2 gpm and 575 gpm, with a rate of 19.5 gpm recorded at the time of the TCE detection. There is no correlation between concentrations and flow rates due to the general absence of COCs.

  The presence of chloroform (a trihalomethane) in the Pipe Outlet to Open Ditch 1 samples and absence in the Building 24 Seep samples indicates another source of chloroform unrelated to the seep.
- COCs present in the Open Ditch 1 Bypass were limited to 1,1-dichloroethane (1,1-DCA) and cis-1,2-DCE at concentrations below the groundwater criteria (both 5 µg/l) and PE daily maximums (10 µg/l each)
  - 1,1-DCA was detected in one sample at 0.60 µg/l
  - cis-1,2-DCE was detected in all samples at concentrations below 1 µg/l, except during the highest and lowest flow rates when it was non-detect

  The flow rates varied between 3.5 gpm and 750 gpm.

  The limited cis-1,2-DCE detections do not suggest a correlation between concentrations and flow rates.

  As no cis-1,2-DCE or 1,1-DCA were detected upstream at Pipe Outlet to Open Ditch 1, this indicated that the Building 24 Seep is not the source.

Despite the range of flow rates reported during various events, the data indicate fairly consistent conditions: approximately 10 percent of the flow observed at Pipe Outlet to Open Ditch 1 is contributed by the Building 24 Seep and approximately

[3] The concept is to redirect water from the existing piping that currently discharges to the open drainage ditch to an underground piping system that ties into nearby catch basin CB-03 which also flows to the 30-inch CMP feeding Pipe Outlet to Open Ditch 1.

75 percent of the flow observed at Open Ditch 1 Bypass enters the ditch at Pipe Outlet to Open Ditch 1. The remainder of the flow is from overland runoff discharging directly to Open Ditch 1.

In their letter dated August 5, 2021, the NYSDEC requested that at least one sample be collected from the Building 24 Seep and the Pipe Outlet to Open Ditch 1 following a minimum 48-hour period without precipitation to evaluate potential dilution of the seep discharge by stormwater associated with:

- unidentified flow from the north into the (unnamed) catch basin which receives water from the seep and open drainage ditch
- flow from upgradient parking lots into CB-01
- flow from the open ditch upstream of the 30-inch diameter CMP
- flow from catch basin CB-03 (which may include water from the Building 24 roof drains)

Documented attempts were made on three occasions during the Pre-Design Study on August 25, August 30, and November 8, 2021. No samples were collected during the two August dates because there was no flow from the Building 24 Seep or the Pipe Outlet to Open Ditch 1. There were several more undocumented attempts to collect samples when flows were present at both locations after 48 hours following a rain event. These observations are consistent with historical findings that indicate there are frequent periods where there is no flow associated with the Building 24 Seep. Sufficient data now exists that demonstrates that there is no base flow from the Building 24 Seep; the seep only discharges as a result of precipitation events.

The single successful sampling event during which both locations were flowing and met the NYSDEC's criterion was on November 8, 2021. Samples which met the NYSDEC criterion were also collected from these two locations during the earlier monitoring events discussed above in Section 2.1.1 on November 4, 2020 and January 13, 2021 (ahead of the pre-design activities).[4] The results for the three sets of samples collected from the Building 24 Seep indicated the presence of cis-1,2-DCE at concentrations between 2.4 µg/l and 4.4 µg/l and below the groundwater criterion, and TCE at concentrations between 15.7 µg/l and 24.9 µg/l and above both the groundwater criterion and PE daily maximum. Neither cis-1,2-DCE or TCE was detected in the samples collected from the Pipe Outlet to Open Ditch 1. These data and information cumulatively indicate that in the absence of contributions from storm water runoff, there is no impact to water quality from the seep discharges to water quality in Open Ditch 1.

2.2 WEIR BOX SEEPS

During the Soil IRM, the oil skimmer and weir box were removed and cleaned before excavation near the west-end of Open Ditch 2 (Figure 1-2). Three groundwater seeps with a small amount of oily product were observed along the exposed bedrock surface below the elevation of the weir box inlet and outlet. A gravel-lined pit was constructed beneath the elevation of the weir box to collect water from the seeps and the weir box was put back into place. As the pit fills with water, it overflows into a halfpipe which directs the water to the Lower Wooden Sluice where it combines with water from Outfalls 001 and 011 before flowing into the open ditch along South Cayuga Street. Seep water is currently being treated using a granular activated carbon prior to discharge. A dye trace study completed in August 2020 confirmed that the groundwater emanating from Area of Concern (AOC) 1 (Figure 1-2) discharges through these seeps. A schematic flow diagram showing sources and discharge locations is shown on Figure 2-1.

The need for remedial action at the Weir Box Seeps was based on the potential complete exposure pathway to CVOCs via untreated discharge from the seeps to the Lower Wooden Sluice which then directs water from the seeps and Outfall 001 (and Outfall 011) to an open ditch along South Cayuga Street leading to the City of Ithaca storm sewer system, ultimately discharging to Sixmile Creek.

[4] The flow rates for the Building 24 Seep during these three sample events were 0.25, less than 0.1, and 0.05 gpm; the flow rates for Pipe Outlet to Open Ditch 1 were not recorded during the two earlier events and 2.0 gpm in November 2021·

2.2.1 INITIAL MONITORING EVENTS

The weir box seeps were not monitored before implementation of the pre-design studies. Shortly after discovery during the Soil IRM activities in AOC 32, individual samples were collected from three seep emanations in close proximity behind the weir box. Three CVOCs were detected: cis-1,2-DCE ranged in concentration from non-detect to 170 µg/l, TCE ranged from non-detect to 8.1 µg/l , and vinyl chloride ranged from 20.7 µg/l to 33.8 µg/l.

2.2.2 PRE-DESIGN ACTIVITIES AND FINDINGS

An objective of the work plan was to determine the maximum expected flow and COC concentrations from the Weir Box Seeps and determine if the discharge at the Lower Wooden Sluice satisfies groundwater or PE discharge criteria. Samples were collected in July, August, September, and November 2021 during various rainfall events.

Sample collection and flow measurements were performed at the following locations:

- Weir Box Seeps - flow was isolated to the extent practical to allow measurement and collection before discharging to the gravel-lined pit
- Outfall 001 - at the weir box pipe discharging to the Lower Wooden Sluice
- Lower Wooden Sluice - below Outfall 011 and at the point of discharge to the open ditch along South Cayuga Street

The results (Tables 2-2 and 2-3) indicate the following:

- COCs present in the Weir Box Seep samples included 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, TCE, vinyl chloride, and chloroform.
  - 1,1-DCE and chloroform were detected in one sample each (0.60 µg/l and 0.59 µg/l) collected during lower flow conditions; the concentrations were below the groundwater criteria of 5 µg/l and 7 µg/l, respectively
  - cis-1,2-DCE, TCE, and vinyl chloride were detected in all samples, typically at concentrations above the groundwater criteria and the PE daily maximum:
    - cis-1,2-DCE was reported at concentrations between 43.2 µg/l and 161 µg/l
    - TCE was reported at concentrations between 4.0 µg/l and 20.5 µg/l
    - vinyl chloride was reported at concentrations between 6.6 µg/l and 46.5 µg/l

    All average concentrations (125 µg/l, 15.5 µg/l, and 20.1 µg/l) exceeded the groundwater criteria and the PE limits, as applicable.
  - trans-1,2-DCE was detected at concentrations below 2 µg/l, except for a single sample in which it was not detected.

  The results for the additional COCs for which analysis was performed indicated the presence of barium, lead, and mercury at concentrations one to two orders of magnitude below the groundwater criteria and below the PE daily maximums for lead and mercury; free cyanide was not detected.

  The flow rates varied between 0.1 gpm and 0.6 gpm. Unlike the Building 24 Seep, there was no clear correlation between flow and concentrations: cis-1,2-DCE concentrations were generally lower at higher flow rates; there was no discernable relation between TCE concentrations and flow rates; the vinyl chloride data hinted at a potential for slightly lower concentrations with increased flow.
- COCs present in the Outfall 001 samples included cis-1,2-DCE and trihalomethanes (chloroform, bromodichloromethane, and dibromochloromethane), with exceedances of groundwater criteria and PE daily maximums only for chloroform.
  - cis-1,2-DCE was detected in three samples at estimated concentrations at or below the detection limit
  - chloroform was detected in all samples at concentrations between 1.6 µg/l and 13.1 µg/l, with more than half of the results above the groundwater criterion; the average concentration was 7.9 µg/l which exceeds the groundwater criterion
  - bromodichloromethane was detected in samples at concentrations between 1.8 µg/l and 2.6 µg/l, except one sample in which it was non-detect (the groundwater criterion and PE daily maximums are 50 µg/l and 10 µg/l, respectively)

- dibromochloromethane was detected in three samples at concentrations between 0.66 and 0.88 µg/l

The flow rates varied from 5.5 gpm to greater than 200 gpm. There is no clear correlation between the COC concentrations and flow although it is noted the lowest concentrations were reported at the highest rate of flow.

Chloroform is not a site COC and appears to be coming from leaks in the potable water distribution system of the main buildings.

- COCs present in the Lower Wooden Sluice samples included cis-1,2-DCE, TCE, and chloroform in all samples and bromodichloromethane and dibromochloromethane in fewer samples with exceedances only for cis-1,2-DCE and chloroform
  - cis-1,2-DCE was detected at concentrations between 1.4 µg/l and 8.4 µg/l, with approximately one-half of the results and the average concentration of 5.6 µg/l above the groundwater criterion
  - TCE was detected at concentrations between 0.61 µg/l and 5.0 µg/l, with an average concentration of 2.8 µg/l
  - chloroform was detected at concentrations between 1.0 µg/l and 11.8 µg/l
  - bromodichloromethane was detected in samples at concentrations between 0.86 and 2.2 µg/l except one sample in which it was non-detect
  - dibromochloromethane was detected in one sample at 0.84 µg/l

  The flow rates varied between 9 gpm and greater than 1,000 gpm. The data suggest a general tendency for lower concentrations to be reported for samples collected during higher flow periods.

The trihalomethanes have been detected in Outfall 001 samples since September 2019: chloroform has consistently been detected and bromodichloromethane and dibromochloromethane have been detected intermittently, similar to what was observed during the Pre-Design Study. These constituents have not been present in samples associated with Outfall 01A (untreated influent, treated effluent). Their presence at Outfall 001 and downstream in the Lower Wooden Sluice and absence in Outfall 01A and the Weir Box Seeps, suggests another source. The source or sources are likely the result of numerous leaks in the City of Ithaca's potable water supply lines which feed the facility (the most recent leak addressed was losing water at approximately 150 gpm). This conclusion is based on the addition of chlorine compounds that are used to disinfect water prior to distribution and which are widely known to subsequently react with other naturally occurring chemicals in the water to form these byproducts.

2.3 RETAINING WALL SUMP

The Retaining Wall Sump is near the north end of the retaining wall which parallels the west wall of Building 4 and marks the western limits of AOC 1. The sump is a precast concrete vault. Water enters the vault from the south and exits to the north through 6- and 4-inch diameter cast iron pipes, respectively. Discharge is to the sanitary sewer on South Cayuga Street.

Water in the sump is currently being treated using a granular activated carbon boom to address the presence of CVOCs prior to discharge. The source of the water and CVOCs entering the sump is believed to be groundwater accumulating behind the retaining wall. A video survey of the inlet pipe to the retaining wall sump conducted in July 2020 and a dye tracer study conducted in August 2020 both confirmed this relationship. Further confirmation was provided by the observed decrease in CVOC concentrations in sump samples collected subsequent to cleaning the piping system.

The need for remedial action at the Retaining Wall Sump was based on the existing discharge to the City of Ithaca publicly owned treatment works (POTW).

2.3.1 INITIAL MONITORING EVENTS

Between 2013 and early 2020, samples and flow measurements were collected from the Retaining Wall Sump on seven occasions (Table 2-1). cis-1,2-DCE was present in all samples with an average concentration of 19.2 µg/l and vinyl chloride was present in all but one sample with an average concentration of 16.6 µg/l. During five of the seven events, the cis-1,2-DCE and vinyl chloride concentrations both exceeded the groundwater criteria. The events with the lowest/non-detect

concentrations were the two with the highest reported flow rates (3 and 3.5 gpm), suggesting some correlation between CVOC levels and flow similar to that observed in the Building 24 Seep.

2.3.2 PRE-DESIGN ACTIVITIES AND FINDINGS

The objectives of the pre-design study were to:

- determine the maximum expected flow and CVOC concentrations in the Retaining Wall Sump
- determine if the water could be re-routed without treatment to the City of Ithaca storm sewer system on South Cayuga Street or to the weir box to combine with other site flows before discharge from Outfall 001

As noted above, the inflow and outflow pipes and the sump were cleaned in July 2020. Samples were then intermittently collected from the sump between January and May 2021 to evaluate the impact of this measure. This data was used to supplement the data collected during the pre-design studies between July and November 2021.

The results for the samples collected from the sump during the pre-design events (July through November 2021; Table 2-2) indicate the following:

- cis-1,2-DCE was present in all samples at concentrations between 0.79 and 6.0 µg/l; concentrations in one sample exceeded the groundwater criterion of 5 µg/l
- vinyl chloride was present in all samples at concentrations between 0.94 and 9.0 µg/l; concentrations in four samples exceeded the groundwater criterion of 2 µg/l
- barium and mercury were present at concentrations two orders of magnitude below the groundwater criteria and below the PE daily maximums; lead and free cyanide were not detected

Flow rates historically ranged between 0.5 gpm and 3.5 gpm; rates during the three early 2021 sampling events ranged between 0.2 gpm and 1.0 gpm; and rates during the Pre-Design Study were below 1 gpm, except during the mid-August 2021 event when a flow of 2.75 gpm was recorded. Although there is no consistent correlation between flow rates and CVOC concentrations, higher CVOC levels do tend to be present during lower flow events. The CVOC data also indicate a clear decrease[5] in concentrations (by approximately 75%) subsequent to cleaning of the lines and sump in July 2020.

[5] The decrease in concentrations may also reflect the removal of shallow soil and capping of deeper soil containing elevated concentrations of CVOCs in AOC 1 during the Soil IRM, as the impacted soil likely affected groundwater which is captured by the retaining wall piping system that feeds the Retaining Wall Sump.

3 DATA EVALUATION AND REMEDY SELECTION

To evaluate the endpoint concentrations of COCs in various combinations of discharges, weighted averages were calculated based on the flow rates and sample results for each of the Pre-Design Study sample locations and events. Table 3-1 presents the data used in the evaluation and the findings.[6] Table 3-1 summarizes the weighted average concentrations for the VOCs primarily detected in the seeps and surface water monitoring locations (cis-1,2-DCE, TCE, vinyl chloride, and chloroform) under various precipitation scenarios. TCE is the only CVOC detected in the seeps and surface water with a discharge limitation requirement for Outfall 001 in the PE. Supporting information for each seep is summarized in the following sections.

3.1 BUILDING 24 SEEP

The work plan objective for the Building 24 Seep was to confirm that CVOC concentrations in the Building 24 Seep were reduced to below the groundwater criteria when discharging at the Pipe Outlet to Open Ditch 1 during various precipitation/runoff conditions. A second objective requested by the NYSDEC in their August 5, 2021 comment letter was to collect at least one sample no sooner than 48 hours after a rain event when the seep sample would not be affected by dilution from upgradient sources.

Sample collection and flow monitoring was performed at the Building 24 Seep, Pipe Outlet to Open Ditch 1, and Open Ditch 1 Bypass. The only exceedances are for TCE in the Building 24 Seep where post-IRM concentrations are typically above the groundwater criterion and the PE daily maximum for Outfall 001. cis-1,2-DCE has not been present above the groundwater criterion since completion of the IRM in Building 24 in December 2018. There were few detections and no exceedances of the TCE criterion or PE daily maximum for Outfall 001 in the downstream samples collected from Pipe Outlet to Open Ditch 1 or Open Ditch 1 Bypass under any flow conditions, including the conditions a minimum of 48 hours after a rain event (November 8, 2021).

Based on these findings and the absence of COCs in samples collected from Pipe Outlet to Open Ditch 1 following a minimum of 48 hours without precipitation, the recommended remedial alternative for the Building 24 Seep is containment within a pipe at the point of discharge from the building, re-routing the pipe underground to catch basin CB-03 for subsequent discharge/conveyance to the 30-inch CMP pipe. As shown in Figure 2-1, the flow continues to Open Ditch 1, Open Ditch 1 Bypass, and Outfall 011.

Rerouting of the Building 24 Seep underground would: (1) eliminate the potential exposure pathway associated with the open drainage ditch west of Building 24 and (2) continue to result in the absence of CVOCs above criteria along Open Ditch 1 where the water first becomes accessible for direct contact.

3.2 WEIR BOX SEEPS AND RETAINING WALL SUMP

The work plan objectives for the Weir Box Seeps were to (1) determine the maximum expected flows and CVOC concentrations in the seeps and (2) determine if untreated discharge from the seeps to the wooden sluice or the weir box would meet discharge criteria if combined with flows from Outfalls 001 and 011. Similar objectives were developed for the Retaining Wall Sump.

[6] In the absence of definitive values (e.g., < 0.25 gpm or >1,000 gpm), the calculations used the minimum/maximum values provided (e.g., 0.25 gpm and 1,000 gpm). For non-detect values, the calculations used values of ½ of the detection limit (i.e., for 1.0 U an input value of 0.5 was used).

Flows from the Weir Box Seeps ranged from less than 0.25 gpm to 0.6 gpm and total CVOCs (cis-1,2-DCE, trans-1,2-DCE, TCE, and vinyl chloride) ranged from 53.8 µg/l to 220.9 µg/l during the pre-design study period. Flow into the Retaining Wall Sump ranged from 0.9 gpm to 2.75 gpm and total CVOCs (cis-1,2-DCE and vinyl chloride) ranged from 1.94 µg/l to 15 µg/l.

To evaluate the second objective, weighted average calculations were performed using flow rates and concentrations collected from eight separate sampling events for various combined flow scenarios (Table 3-1). Review of the calculations for the combined flows of the Weir Box Seeps, Retaining Wall Sump, and Outfall 001 shows that the resultant concentrations do not exceed the PE limits for Outfall 001 for TCE, the only CVOC detected in the seeps with a corresponding discharge limitation for Outfall 001 in the PE.

The weighted average calculations show that chloroform ranged from 1.6 µg/l to 12 µg/l with only 2 out of 8 events above 10 µg/l. Chloroform was not detected in the Building 24 Seep, Retaining Wall Sump, Weir Box Seeps or Outfall 1A and is not identified as a COC. The presence of chloroform at Outfall 001 and absence in other sampling locations suggests another source. As mentioned previously, the source or sources of chloroform present in Outfall 001 are likely the result of numerous leaks in the City of Ithaca's potable water supply lines which feed the facility (the most recent leak addressed by the facility was losing water at approximately 150 gpm). This conclusion is based on the addition of chlorine compounds that are used to disinfect water prior to distribution and which are widely known to subsequently react with other naturally occurring chemicals in the environment to form these byproducts.

3.3 REMEDY SELECTION

Based on the data presented in this Pre-Design Study, the following remedy was identified to address the three seeps:

- Building 24 Seep – provide containment at the point of exit from the building, re-routing underground to CB-03 for subsequent discharge/conveyance to the 30-inch CMP pipe which flows to Open Ditch 1, Open Ditch 1 Bypass, and Outfall 011.
- Weir Box Seeps – re-route discharge from the seeps to the weir box to combine flow with Outfall 001
- Retaining Wall Sump – re-route discharge from the seeps to the weir box to combine flow with Outfall 001[7]

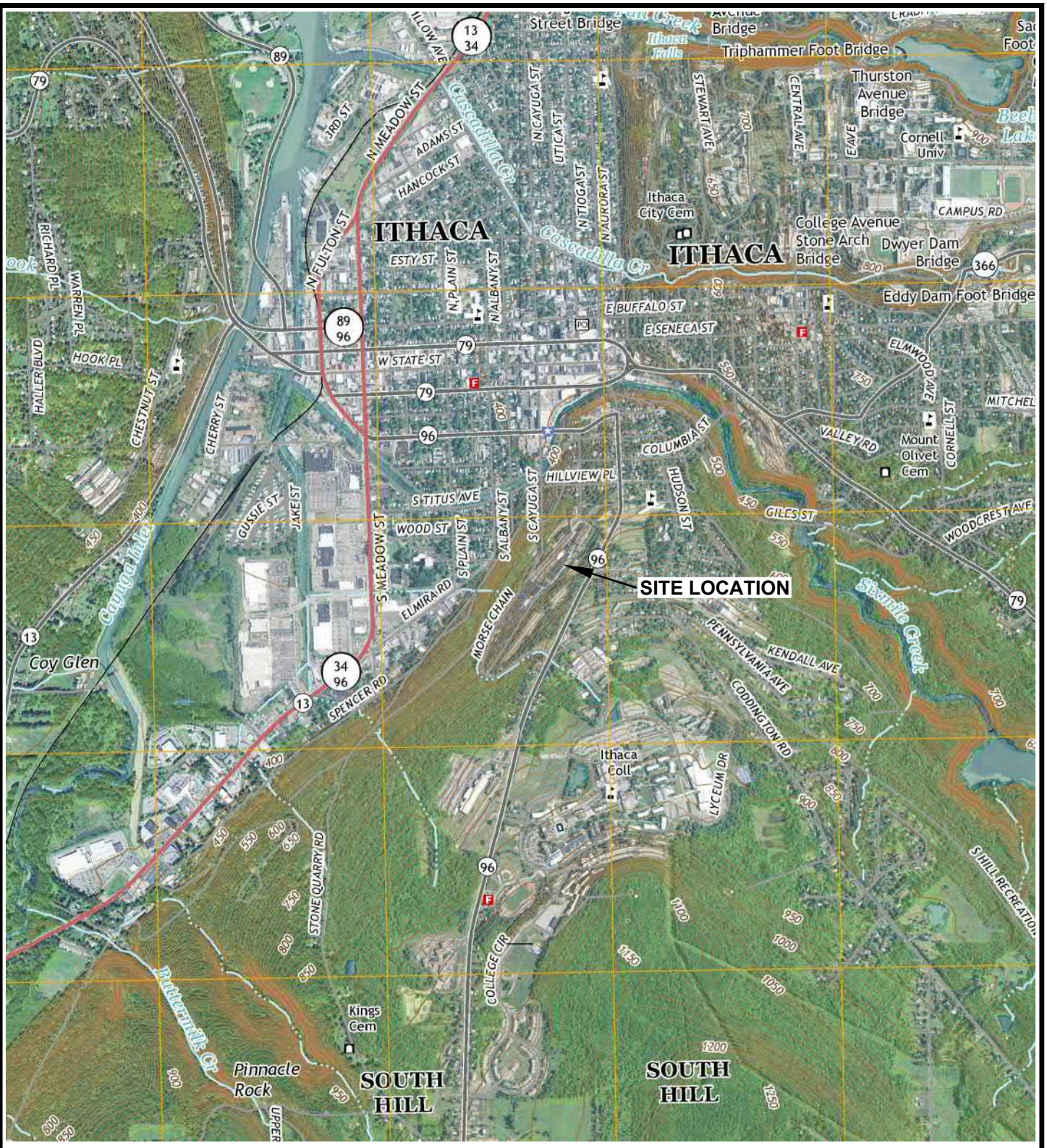
The PE authorizes discharge of storm water, ground water seepage, and treated remedial wastewater from Outfall 001 and groundwater seepage from Outfall 011. In accordance with the NYSDEC's last comment in the August 5, 2021 letter, "If the results indicate that the Weir Box Seep and/or the Retaining Wall Sump flow can be re-routed to the weir box and ultimately Outfall 001, all discharge limitations included in the PE for Outfall 001 must be met." When the groundwater seepage from the Weir Box Seeps and Retaining Wall Sump is combined in the weir box, the weighted average calculations demonstrate the PE discharge limitations will be met for CVOCs under various precipitation and runoff conditions. While no numerical discharge limits for CVOCs are identified for Outfall 011 in the PE, the sampling data demonstrates that the TCE concentrations consistently meet the NYSDEC criteria (an order of magnitude less than the groundwater criterion) when the water first daylights to Open Ditch 1. Lastly, as shown in Table 2-3, the PE discharge limitations for other parameters including pH, lead, barium, mercury, and free cyanide, were all met.

[7] The rerouting to the weir box would be performed if the City of Ithaca does not approve continued discharge of the Retaining Wall Sump water to the sanitary sewer system or rerouting to the city storm water system.

4 ACRONYMS AND ABBREVIATIONS

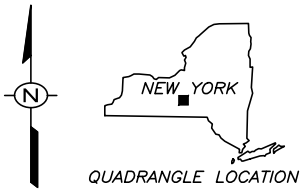
AROD	Amended Record of Decision
COC	constituent of concern
CMP	corrugated metal pipe
CVOC	chlorinated volatile organic compound
DCA	dichloroethane
DCE	dichloroethane
EPT	Emerson Power Transmission
FS	Feasibility Study
gpm	gallon per minute
IRM	Interim Remedial Measure
µg/l	micrograms per liter
mg/l	milligrams per liter
ng/l	nanograms per liter
NYSDEC	New York State Department of Environmental Conservation
PE	Permit Equivalent
POTW	publicly owned treatment works
ROD	Record of Decision
SPDES	State Pollution Discharge Elimination System
SRI	Supplemental Remedial Investigation
TCE	trichloroethene
VOC	volatile organic compound

FIGURES



REFERENCES:

USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES, ITHACA WEST AND ITHACA EAST, N.Y., 2016. SCALE: 1:24,000



QUADRANGLE LOCATION

0 1000 2000 4000

SCALE, FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE REPRODUCTION MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

WSP USA Inc.
11 STANWIX STREET
SUITE 950
PITTSBURGH, PA 15222
TEL: +1 412.604.1040

FIGURE 1–1

SITE LOCATION MAP

FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

A | Drawn By: RAL 04/14/2021 | Checked: DAR 04/14/2021 | Approved: DAR 04/14/2021 | DWG Name: 314P1545.001–A05

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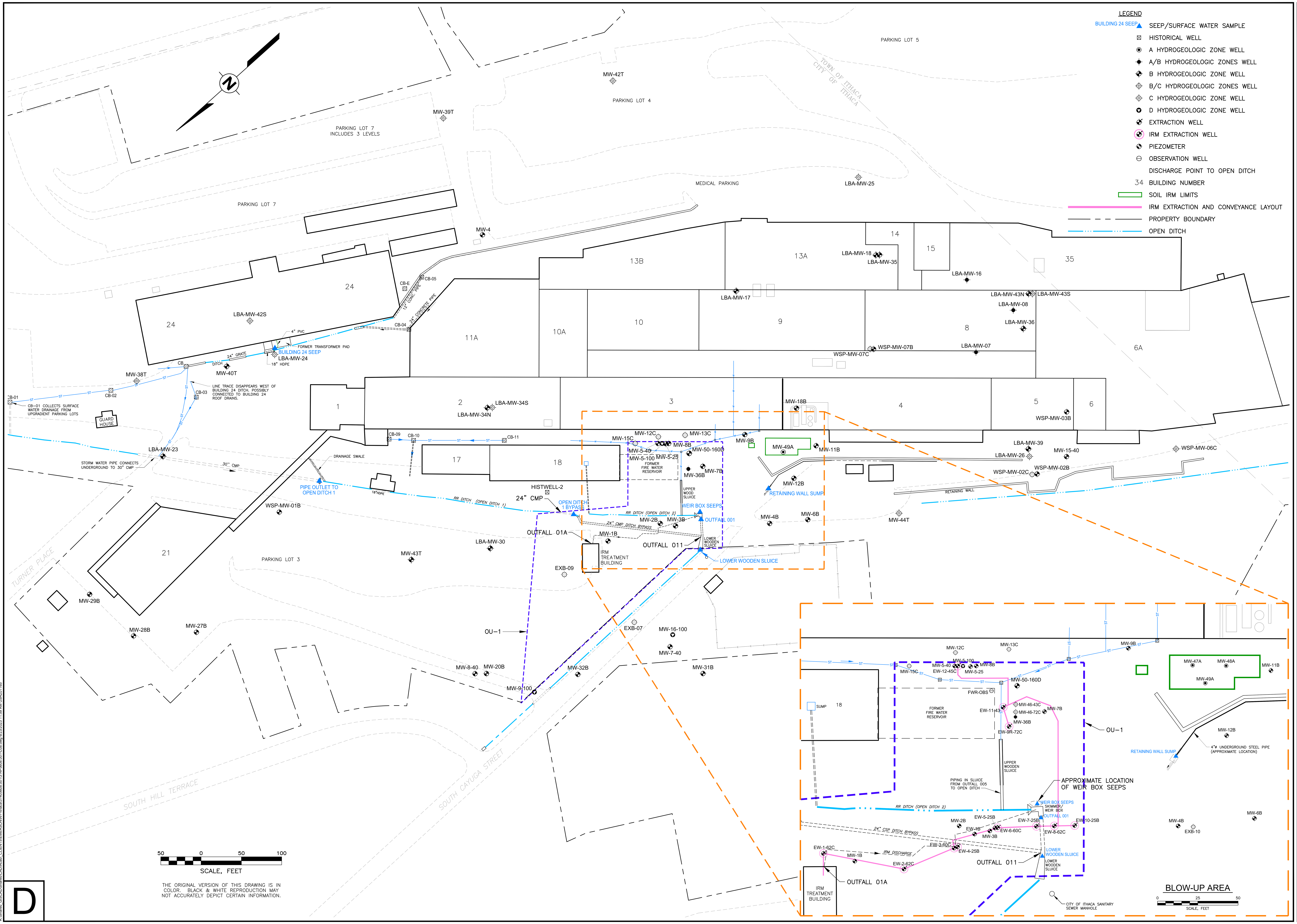


REVISIONS

REV	DESCRIPTION			
1		Revised:	Chkd:	Appr.:
2		Revised:	Chkd:	Appr.:
3		Revised:	Chkd:	Appr.:

SEAL

DATE

DRAWN BY PAZ 06082023
CHECKED DAR 06082023
APPROVED DAR 06232023

SITE LAYOUT

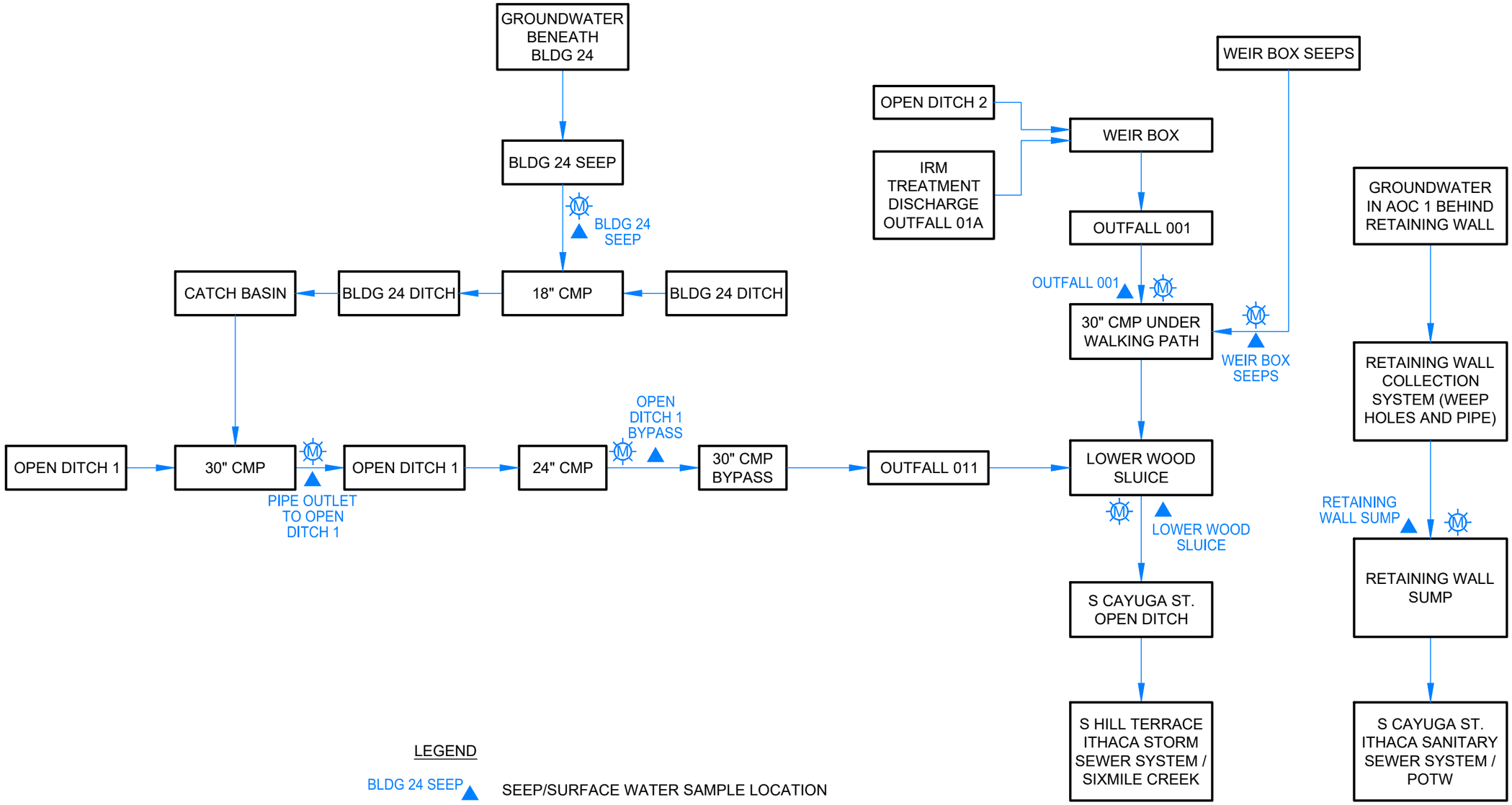
PRE-DESIGN STUDY REPORT
FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON – ST. LOUIS, MISSOURI

WSP USA Inc.
11 STANWIX STREET, SUITE 950
PITTSBURGH, PA 15222
TEL: +1 412.604.1040

FIGURE 1–2

Drawing Number
314P5608.001–D38



PRE-DESIGN STUDY REPORT
FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON – ST. LOUIS, MISSOURI

FIGURE 2-1

SCHEMATIC FLOW DIAGRAM AND MONITORING LOCATIONS

Drawn By: RAZ 06/08/2023
Checked: DJR 06/08/2023
Approved: DJR 06/15/2023
Dwg Name: 314P5608.001-B14

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B

TABLES

Table 2-1

Summary of COC Sample Results - VOCs
Building 24 Seep and Retaining Wall Sump (2013 - February 2020)
Pre-Design Study Report
Former Emerson Power Transmission Facility
Ithaca, New York (a)

Sample Location:				**Building 24 Seep**													
Flow Rate (gpm):				-	-	0.04	0.22	2	0.2	1.71	0.25	-	-	-	<0.1	0.5	1.5	1.75
Sample Date:				12/11/13 (b)	12/11/13 (b)	10/04/14 (c)	10/15/14 (c)	10/15/14 (c)	11/06/14 (c)	11/07/14 (c)	12/10/15	12/14/18	03/07/19	06/12/19	08/29/19	12/06/19	01/16/20	02/05/20
Parameters	**NYSDEC Criteria (d) Ground-water**	**Surface Water**	**Permit Equivalent (e) Daily Max.**															
CVOCs (µg/l)																		
cis-1,2-DCE	5	-	10	2.1	1 U	7.4	14.4	1.7	10.4	2.4	4.7	2.7	1.0 U	7.1	4.4	0.65 J	1.2	0.7 J
TCE	5	40	10	31	25.6	***50.6***	***62.8***	13.4	***64.2***	18.3	***40.7***	13.4	1.0 U	***52.1***	19.7	4.4	9.0	5.8

Sample Location:				**Retaining Wall Sump**						
Flow Rate (gpm):				-	-	0.5	3	0.5	3.5	1
Sample Date:				04/04/13 (f)	06/18/14	10/10/17	10/30/17 (g)	11/16/17	01/12/18	02/26/20
Parameters	**NYSDEC Criteria Ground-water**	**Surface Water**	**Permit Equivalent Daily Max.**							
CVOCs (µg/l)										
cis-1,2-DCE	5	-	10	57.7	30.8	5.8	0.87 J	16.6	3.2	19.6
TCE	5	40	10	1 U	1 U	1 U	0.3 J	1 U	1 U	1 U
Vinyl chloride	2	-	10	64.8	20.1	8.4	1 U	10.5	1.7	9.9

Boxed values indicate exceedences of the NYSDEC Class GA groundwater standards
Bold and italicized values indicate exceedences of a NYSDEC Class C surface water standards
Yellow highlighted values indicate exceedences of the SPDES permit equivalent limits

a\ NYSDEC = New York State Department of Environmental Conservation; CVOC = chlorinated volatile organic compound; DCE = dichloroethene; TCE = trichloroethene; µg/l = micrograms per liter; MAX. = maximum; "-" indicates criterion not established.
Data Qualifiers:
U = constituent not detected at the reporting limit noted
J = constituent detected at an estimated concentration between the reporting and method detection limits (organics)

b\ Split samples collected by LaBella Associates, on behalf of L Enterprises, LLC, and WSP USA, on behalf of Emerson.

c\ The 2014 samples were collected under varying flow conditions:

October 4	0.04 gallons per minute (gpm) at the beginning of flow (following precipitation)
October 15 (1)	0.22 gpm at the beginning of flow
October 15 (2)	2.86 gpm mid-point in the flow
November 6	0.20 gpm at the beginning of flow
November 7	1.71 gpm at the end of flow

The flow rates for the samples collected on December 14, 2018, March 7, 2019, and June 12, 2019 were not recorded. Based on previous findings (elevated concentrations during low flow / lower concentrations during high flow), the 2018 sample and the March and June 2019 samples were likely collected during a moderate, high, and low flows, respectively.

d\ Evaluation criteria are the New York State Ambient Water Quality Standards and Guidance Values for Class GA groundwater provided in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, and the April 2000 Addendum.

e\ Source: NYSDEC Wastewater Discharge SPDES Permit Equivalent, DER Site No. 7-55-010, Effective date August 1, 2022.

f\ Highest concentration or detection limit for a sample/duplicate pair.

g\ In addition, carbon disulfide was detected at 0.31 µg/l (estimated), below the groundwater standard of 60 µg/l.

Table 2-2

Summary of COC Sample Results - VOCs
(March 2020 - February 2022)
Pre-Design Report
Former Emerson Power Transmission Facility
Ithaca, New York (a)

Parameters	NYSDEC Criteria (b) Ground-water	NYSDEC Criteria (b) Surface Water	Permit Equivalent (c) Daily Max.	Sample Location:	Building 24 Seep																
				Flow Rate (gpm):	0.1	<0.25	0.5	<0.1	4.0	0.5	0.25	<0.1	0.78	2.50	1.54	2.45	3.13	2.31	13.0	1.60	3.2	0.05
				Sample Date:	03/11/20	04/07/20	05/07/20	06/04/20	09/30/20	10/23/20	11/04/20	01/13/21	03/06/21	05/06/21	07/01/21	07/08/21	07/21/21	08/02/21	08/17/21	09/09/21	09/16/21	11/08/21
CVOCs (µg/l)																						
cis-1,2-DCE	5	-	10		0.66 J	1.8	2.5	9.0	0.58 J	2.5	4.1	2.4	1.3	1.5	2.4	1.7	1.4	1.9	2.3	2.1	1.3	4.4
trans-1,2-DCE	5	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	40	10		4.9	14.1	18.3	***68.4***	3.2	14.2	20.8	15.7	7.5	11.1	17.5	11.6	9.8	9.4	8.6	11.0	8.8	24.9
Vinyl chloride	2	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	50	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	50	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Parameters	NYSDEC Criteria Ground-water	NYSDEC Criteria Surface Water	Permit Equivalent Daily Max.	Sample Location:	Pipe Outlet to Open Ditch 1																
				Flow Rate (gpm):	-	~1	~3	<0.25	-	-	-	-	-	-	19.4	21.3	36	13.8	575	9.7	19.2	2.0
				Sample Date:	03/11/20	04/07/20	05/07/20 (d)	06/04/20	09/30/20	10/23/20	11/04/20	01/13/21	03/06/21	05/06/21	07/01/21	07/08/21	07/21/21	08/02/21	08/17/21	09/09/21	09/16/21	11/08/21
CVOCs (µg/l)																						
cis-1,2-DCE	5	-	10		1 U	1 U	1 U	1 U	0.69 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-DCE	5	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	40	10		1 U	1 U	1 U	1 U	0.78 J	1 U	1 U	1 U	1 U	0.53 J	0.82 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	50	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	50	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Parameters	NYSDEC Criteria Ground-water	NYSDEC Criteria Surface Water	Permit Equivalent Daily Max.	Sample Location:	Open Ditch 1 Bypass						
				Flow Rate (gpm):	21.8	27.1	48	20.4	750	12.1	27.1	3.5
				Sample Date:	07/01/21	07/08/21	07/21/21	08/02/21 (e)	08/17/21	09/09/21	09/16/21	11/08/21
CVOCs (µg/l)												
cis-1,2-DCE	5	-	10		0.82 J	0.74 J	0.56 J	0.88 J	1 U	0.68 J	0.53 J	1 U
trans-1,2-DCE	5	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	40	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	50	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	-	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	50	10		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Boxed values indicate exceedences of the NYSDEC Class GA groundwater standards
Bold and italicized values indicate exceedences of a NYSDEC Class C surface water standards
Yellow highlighted values indicate exceedences of the SPDES permit equivalent limits

Table 2-2 (continued)

Summary of COC Sample Results - VOCs
(March 2020 - February 2022)
Pre-Design Report
Former Emerson Power Transmission Facility
Ithaca, New York

Parameters	NYSDEC Criteria Ground-water	NYSDEC Criteria Surface Water	Permit Equivalent Daily Max.	Weir Box Seeps 0.4 07/01/21	<0.25 07/08/21	<0.25 07/21/21	<0.25 08/02/21	<0.25 08/17/21	0.5 09/09/21	0.6 09/16/21	0.1 11/18/21 (f)
CVOCs (µg/l)											
cis-1,2-DCE	5	-	10	135	135	159	123	43.2	117	128	161
trans-1,2-DCE	5	-	10	1.8	1.3	1.7	1.3	1 U	1.3	1.4	1.4
TCE	5	40	10	20.5	16.6	20.3	14.0	4.0	18.1	18.5	12
Vinyl chloride	2	-	10	12.2	13.6	21.2	20.7	6.6	20.7	19.3	46.5
Bromodichloromethane	50	50	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	-	10	1 U	1 U	1 U	1 U	1.0	1 U	1 U	1 U
Dibromochloromethane	50	50	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Parameters	NYSDEC Criteria Ground-water	NYSDEC Criteria Surface Water	Permit Equivalent Daily Max.	Outfall 001 22 07/01/21	49 07/08/21	65 07/21/21	5.5 08/02/21	>200 08/17/21	25 09/09/21	19 09/16/21	10 11/08/21
CVOCs (µg/l)											
cis-1,2-DCE	5	-	10	1 U	0.66 J	1 U	1 U	1 U	1.0	0.92 J	1 U
trans-1,2-DCE	5	-	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	40	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	-	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	50	10	2.2	1.9	1.9	1.9	1 U	1.8	2.1	2.6
Chloroform	7	-	10	7.9	9.5	11.1	13.1	1.6	4.8	5.7	9.5
Dibromochloromethane	50	50	10	1 U	1 U	1 U	1 U	1 U	0.66 J	0.88 J	0.67 J

Parameters	NYSDEC Criteria Ground-water	NYSDEC Criteria Surface Water	Permit Equivalent Daily Max.	Lower Wooden Sluice 18 07/01/21	50 07/08/21	60 07/21/21	16.7 08/02/21	>1,000 08/17/21	14.2 09/09/21	23.2 09/16/21	9 11/08/21
CVOCs (µg/l)											
cis-1,2-DCE	5	-	10	4.8	3.8	4.8	6.3	1.4	8.4	7.6	7.9
trans-1,2-DCE	5	-	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	40	10	2.4	1.7	2.1	3.7	0.61 J	5.0	4.5	2.6
Vinyl chloride	2	-	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	50	50	10	2.2	1.2	0.86	2.0	1 U	1.5	1.7	1.9
Chloroform	7	-	10	7.7	5.1	5.5	11.8	1.0	3.8	4.6	7.5
Dibromochloromethane	50	50	10	1 U	1 U	1 U	1 U	1 U	1 U	0.84 J	1 U

Parameters	NYSDEC Criteria Ground-water	NYSDEC Criteria Surface Water	Permit Equivalent Daily Max.	Retaining Wall Sump 1.0 01/13/21 (g)	0.25 03/16/21	0.35 05/06/21	0.31 07/01/21	0.28 07/08/21	0.48 07/21/21	0.30 08/02/21	2.75 08/17/21	0.58 09/09/21	0.75 09/16/21	0.9 11/08/21
CVOCs (µg/l)														
cis-1,2-DCE	5	-	10	5.9	10.6	7.3	1.0	2.6	3.4	2.7	1.5	3.0	0.79 J	6.0
trans-1,2-DCE	5	-	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TCE	5	40	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	-	10	5.6	9.2	6.3	0.94 J	1.8	3.0	2.5	1.8	3.7	1.2	9.0
Bromodichloromethane	50	50	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	7	-	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50	50	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Boxed values indicate exceedences of the NYSDEC Class GA groundwater standards
Bold and italicized values indicate exceedences of a NYSDEC Class C surface water standards
Yellow highlighted values indicate exceedences of the SPDES permit equivalent limits

Table 2-2 (continued)

Summary of COC Sample Results - VOCs
(March 2020 - February 2022)
Pre-Design Report
Former Emerson Power Transmission Facility
Ithaca, New York

a\ NYSDEC = New York State Department of Environmental Conservation; CVOC = chlorinated volatile organic compound; DCE = dichloroethene; TCE = trichloroethene; gpm = gallons per minute; µg/l = micrograms per liter; MAX = maximum; "-" indicates criterion not established or analysis not performed.
Data Qualifiers:
U = constituent not detected at the reporting limit noted
J = constituent detected at an estimated concentration between the reporting and method detection limits (organics)

b\ Evaluation criteria are the New York State Ambient Water Quality Standards and Guidance Values for Class GA groundwater provided in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, and the April 2000 Addendum.

c\ Source: NYSDEC Wastewater Discharge SPDES Permit Equivalent, DER Site No. 7-55-010, Effective date August 1, 2022.

d\ The carbon sock used to treat the discharge from Building 24 was not removed before collecting the sample from the Outlet to Open Ditch 1.

e\ 1,1-Dichloroethane was also detected at an estimated concentration of 0.60 µg/l.
The groundwater criterion and the permit equivalent maximum daily limit are 5 and 10 µg/l.

f\ 1,1-Dichloroethene was also detected at an estimated concentration of 0.60 µg/l.
The groundwater criterion and the permit equivalent maximum daily limit are 5 and 10 µg/l.

g\ The sump and the lines leading to and from the sump were cleaned in July 2020 (refer to text).

Table 2-3

Summary of Sample Results - Inorganics
(2022)
Pre-Design Report
Former Emerson Power Transmission Facility
Ithaca, New York (a)

					Weir Box	Retaining Wall
				Sample Location:	**Seeps**	**Sump**
				Flow Rate (gpm):	**0.25**	**0.5**
				Sample Date:	**02/10/22**	**02/10/22**
	NYSDEC Criteria (b)		**SPDES Permit Equivalent (c)**			
Parameters	**Ground-water**	**Surface Water**	**Monthly Ave.**	**Daily Max.**		
Barium (µg/l)	1,000	1,000	-	monitor	63.0 J	27.5 J
Lead (µg/l)	25	50	-	7.4	3.4	2.4 U
Mercury (ng/l)	700	700	-	50	3.1	2.3
Free Cyanide (mg/l)	0.2	-	5.2	22	0.003 U	0.003 U
pH (s.u.)	6.5 - 8.5	-	6.5 - 8.5		7.40	7.89

Boxed values indicate exceedences of the NYSDEC Class GA groundwater standards
Bold and italicized values indicate exceedences of a NYSDEC Class C surface water standards
Yellow highlighted values indicate exceedences of the SPDES permit equivalent limits

a\ NYSDEC = New York State Department of Environmental Conservation; SPDES = State Pollutant Discharge Elimination System; AVE. = average; Max. = maximum; gpm = gallons per minute; µg/l = micrograms per liter; ng/l = nanograms per liter; mg/l - milligrams per liter; s.u. = standard unit; "-" indicates criterion not established.
Data Qualifiers:
U = constituent not detected at the reporting limit noted
J = constituent detected at an estimated concentration between the reporting and method detection limits

b\ Evaluation criteria are the New York State Ambient Water Quality Standards and Guidance Values for Class GA groundwater provided in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1), dated June 1998, and the April 2000 Addendum.

c\ Source: NYSDEC Wastewater Discharge SPDES Permit Equivalent, DER Site No. 7-55-010, Effective date August 1, 2022.

Table 3-1

Weighted Average Concentrations and Combined Flows Evaluation (Detected VOCs)
Pre-Design Report
Former Emerson Power Transmission Facility
Ithaca, New York

Weir Box Seeps and Outfall 001

	COC Concentrations (µg/l)			
	Weir Box Seeps	Outfall 001	WAVG Outfall 001 (b)	Actual LWS
07/01/21				
COC				
cis-1,2-DCE	135	0.5	2.9	4.8
TCE	20.5	0.5	0.9	2.4
Vinyl chloride	12.2	0.5	0.7	0.5
Chloroform	0.5	7.9	7.8	7.7
Flow (gpm)	0.4	22	22.4	18
07/08/21				
COCs				
cis-1,2-DCE	135	0.66	1.3	3.8
TCE	16.6	0.5	0.6	1.7
Vinyl chloride	13.6	0.5	0.6	0.5
Chloroform	0.5	9.5	9.5	5.1
Flow (gpm)	0.25	49	49.25	50
07/21/21				
COCs				
cis-1,2-DCE	159	0.5	1.1	4.8
TCE	20.3	0.5	0.6	2.1
Vinyl chloride	21.2	0.5	0.6	0.5
Chloroform	0.5	11.1	11.1	5.5
Flow (gpm)	0.25	65	65.25	60
08/02/21				
COCs				
cis-1,2-DCE	123	0.5	5.8	6.3
TCE	14	0.5	1.1	3.7
Vinyl chloride	20.7	0.5	1.4	0.5
Chloroform	0.5	13.1	12.6	11.8
Flow (gpm)	0.25	5.5	5.75	16.7
08/17/21				
COCs				
cis-1,2-DCE	43.2	0.5	0.6	1.4
TCE	4.0	0.5	0.5	0.61
Vinyl chloride	6.6	0.5	0.5	0.5
Chloroform	1.0	1.6	1.6	1.0
Flow (gpm)	0.25	200	200.25	1,000
09/09/21				
COCs				
cis-1,2-DCE	117	1.0	3.3	8.4
TCE	18.1	0.5	0.8	5.0
Vinyl chloride	20.7	0.5	0.9	0.5
Chloroform	0.5	4.8	4.7	3.8
Flow (gpm)	0.5	25	25.5	14.2
09/16/21				
COCs				
cis-1,2-DCE	128	0.92	4.8	7.6
TCE	18.5	0.5	1.1	4.5
Vinyl chloride	19.3	0.5	1.1	0.5
Chloroform	0.5	5.7	5.5	4.6
Flow (gpm)	0.6	19	19.6	23.2
11/08/21				
COCs				
cis-1,2-DCE	161	0.5	2.1	7.9
TCE	12	0.5	0.6	2.6
Vinyl chloride	46.5	0.5	1.0	0.5
Chloroform	0.5	9.5	9.4	7.5
Flow (gpm)	0.1	10	10.1	9

Weir Box Seeps and Outfalls 001 and 011

	COC Concentrations (µg/l)				
	Weir Box Seeps	Outfall 001	Outfall 011	WAVG LWS	Actual LWS
07/01/21					
COCs					
cis-1,2-DCE	135	0.5	0.82	1.9	4.8
TCE	20.5	0.5	0.5	0.7	2.4
Vinyl chloride	12.2	0.5	0.5	0.6	0.5
Chloroform	0.5	7.9	0.5	4.2	7.7
Flow (gpm)	0.4	22	21.8	44.2	18
07/08/21					
COCs					
cis-1,2-DCE	135	0.66	0.74	1.1	3.8
TCE	16.6	0.5	0.5	0.6	1.7
Vinyl chloride	13.6	0.5	0.5	0.5	0.5
Chloroform	0.5	9.5	0.5	6.3	5.1
Flow (gpm)	0.25	49	27.1	76.35	50
07/21/21					
COCs					
cis-1,2-DCE	159	0.5	0.56	0.9	4.8
TCE	20.3	0.5	0.5	0.5	2.1
Vinyl chloride	21.2	0.5	0.5	0.5	0.5
Chloroform	0.5	11.1	0.5	6.6	5.5
Flow (gpm)	0.25	65	48	113.25	60
08/02/21					
COCs					
cis-1,2-DCE	123	0.5	0.88	2.0	6.3
TCE	14	0.5	0.5	0.6	3.7
Vinyl chloride	20.7	0.5	0.5	0.7	0.5
Chloroform	0.5	13.1	0.5	3.2	11.8
Flow (gpm)	0.25	5.5	20.4	26.15	16.7
08/17/21					
COCs					
cis-1,2-DCE	43.2	0.5	0.5	0.5	1.4
TCE	4.0	0.5	0.5	0.5	0.61
Vinyl chloride	6.6	0.5	0.5	0.5	0.5
Chloroform	1.0	1.6	0.5	0.7	1
Flow (gpm)	0.25	200	750	950.25	1,000
09/09/21					
COCs					
cis-1,2-DCE	117	1.0	0.68	2.4	8.4
TCE	18.1	0.5	0.5	0.7	5
Vinyl chloride	20.7	0.5	0.5	0.8	0.5
Chloroform	0.5	4.8	0.5	3.4	3.8
Flow (gpm)	0.5	25	12.1	37.6	14.2
09/16/21					
COCs					
cis-1,2-DCE	128	0.92	0.53	0.7	7.6
TCE	18.5	0.5	0.5	0.5	4.5
Vinyl chloride	19.3	0.5	0.5	0.5	0.5
Chloroform	0.5	5.7	0.5	2.6	4.6
Flow (gpm)	0.6	19	27.1	46.1	23.2
11/08/21					
COCs					
cis-1,2-DCE	161	0.5	0.5	1.7	7.9
TCE	12	0.5	0.5	0.6	2.6
Vinyl chloride	46.5	0.5	0.5	0.8	0.5
Chloroform	0.5	9.5	0.5	7.1	7.5
Flow (gpm)	0.1	10	3.5	13.6	9

Retaining Wall Sump and Outfall 001

	COC Concentrations (µg/l)			
	Retaining Wall Sump	Outfall 001	WAVG Outfall 001 (b)	Actual LWS
07/01/21				
COCs				
cis-1,2-DCE	1.0	0.5	0.5	4.8
TCE	0.5	0.5	0.5	2.4
Vinyl chloride	0.94	0.5	0.5	0.5
Chloroform	0.5	7.9	7.8	7.7
Flow (gpm)	0.31	22	22.31	18
07/08/21				
COCs				
cis-1,2-DCE	2.6	0.66	0.7	3.8
TCE	0.5	0.5	0.5	1.7
Vinyl chloride	1.8	0.5	0.5	0.5
Chloroform	0.5	9.5	9.4	5.1
Flow (gpm)	0.28	49	49.28	50
07/21/21				
COCs				
cis-1,2-DCE	3.4	0.5	0.5	4.8
TCE	0.5	0.5	0.5	2.1
Vinyl chloride	3.0	0.5	0.5	0.5
Chloroform	0.5	11.1	11.0	5.5
Flow (gpm)	0.48	65	65.48	60
08/02/21				
COCs				
cis-1,2-DCE	2.7	0.5	0.6	6.3
TCE	0.5	0.5	0.5	3.7
Vinyl chloride	2.5	0.5	0.6	0.5
Chloroform	0.5	13.1	12.4	11.8
Flow (gpm)	0.3	5.5	5.8	16.7
08/17/21				
COCs				
cis-1,2-DCE	1.5	0.5	0.5	1.4
TCE	0.5	0.5	0.5	0.61
Vinyl chloride	1.8	0.5	0.5	0.5
Chloroform	0.5	1.6	1.6	1.0
Flow (gpm)	2.75	200	202.75	1,000
09/09/21				
COCs				
cis-1,2-DCE	3.0	1.0	1.0	8.4
TCE	0.5	0.5	0.5	5.0
Vinyl chloride	3.7	0.5	0.6	0.5
Chloroform	0.5	4.8	4.7	3.8
Flow (gpm)	0.58	25	25.58	14.2
09/16/21				
COCs				
cis-1,2-DCE	0.79	0.92	0.9	7.6
TCE	0.5	0.5	0.5	4.5
Vinyl chloride	1.2	0.5	0.5	0.5
Chloroform	0.5	5.7	5.5	4.6
Flow (gpm)	0.75	19	19.75	23.2
11/08/21				
COCs				
cis-1,2-DCE	6.0	0.5	1.0	7.9
TCE	0.5	0.5	0.5	2.6
Vinyl chloride	9.0	0.5	1.2	0.5
Chloroform	0.5	9.5	8.8	7.5
Flow (gpm)	0.9	10	10.9	9

Retaining Wall Sump, Outfall 001, and Weir Box Seeps

	COC Concentrations (µg/l)				
	Retaining Wall Sump	Outfall 001	Weir Box Seeps	WAVG Outfall 001 (b)	Actual LWS
07/01/21					
COCs					
cis-1,2-DCE	1.0	0.5	135	2.9	4.8
TCE	0.5	0.5	20.5	0.9	2.4
Vinyl chloride	0.94	0.5	12.2	0.7	0.5
Chloroform	0.5	7.9	0.5	7.7	7.7
Flow (gpm)	0.31	22	0.4	22.71	18
07/08/21					
COCs					
cis-1,2-DCE	2.6	0.66	135	1.3	3.8
TCE	0.5	0.5	16.6	0.6	1.7
Vinyl chloride	1.8	0.5	13.6	0.6	0.5
Chloroform	0.5	9.5	0.5	9.4	5.1
Flow (gpm)	0.28	49	0.25	49.5	50
07/21/21					
COCs					
cis-1,2-DCE	3.4	0.5	159	1.1	4.8
TCE	0.5	0.5	20.3	0.6	2.1
Vinyl chloride	3.0	0.5	21.2	0.6	0.5
Chloroform	0.5	11.1	0.5	11.0	5.5
Flow (gpm)	0.48	65	0.25	65.7	60
08/02/21					
COCs					
cis-1,2-DCE	2.7	0.5	123	5.7	6.3
TCE	0.5	0.5	14	1.1	3.7
Vinyl chloride	2.5	0.5	20.7	1.4	0.5
Chloroform	0.5	13.1	0.5	12.0	11.8
Flow (gpm)	0.3	5.5	0.25	6.1	16.7
08/17/21					
COCs					
cis-1,2-DCE	1.5	0.5	43.2	0.6	1.4
TCE	0.5	0.5	4.0	0.5	0.61
Vinyl chloride	1.8	0.5	6.6	0.5	0.5
Chloroform	0.5	1.6	1.0	1.6	1
Flow (gpm)	2.75	200	0.25	203.0	1,000
09/09/21					
COCs					
cis-1,2-DCE	3.0	1.0	117	3.3	8.4
TCE	0.5	0.5	18.1	0.8	5
Vinyl chloride	3.7	0.5	20.7	1.0	0.5
Chloroform	0.5	4.8	0.5	4.6	3.8
Flow (gpm)	0.58	25	0.5	26.1	14.2
09/16/21					
COCs					
cis-1,2-DCE	0.79	0.92	128	4.7	7.6
TCE	0.5	0.5	18.5	1.0	4.5
Vinyl chloride	1.2	0.5	19.3	1.1	0.5
Chloroform	0.5	5.7	0.5	5.4	4.6
Flow (gpm)	0.75	19	0.6	20.4	23.2
11/08/21					
COCs					
cis-1,2-DCE	6.0	0.5	161	2.4	7.9
TCE	0.5	0.5	12	0.6	2.6
Vinyl chloride	9.0	0.5	46.5	1.6	0.5
Chloroform	0.5	9.5	0.5	8.7	7.5
Flow (gpm)	0.9	10	0.1	11.0	9

Boxed values indicate exceedences of the NYSDEC Class GA groundwater standards
Yellow highlighted values indicate exceedences of the SPDES permit equivalent limits at Outfall 001 (TCE is only COC detected with a discharge limit)

Table 3-1 (continued)

Weighted Average Concentrations and Combined Flows Evaluation (Detected VOCs)
Pre-Design Report
Former Emerson Power Transmission Facility
Ithaca, New York (a)

Retaining Wall Sump and Outfalls 001 and 011

	COC Concentrations (µg/l)				
	Retaining Wall Sump	Outfall 001	Outfall 011	WAVG LWS	Actual LWS
07/01/21					
COCs					
cis-1,2-DCE	1.0	0.5	0.82	0.7	4.8
TCE	0.5	0.5	0.5	0.5	2.4
Vinyl chloride	0.94	0.5	0.5	0.5	0.5
Chloroform	0.5	7.9	0.5	4.2	7.7
Flow (gpm)	0.31	22	21.8	44.11	18
07/08/21					
COCs					
cis-1,2-DCE	2.6	0.66	0.74	0.7	3.8
TCE	0.5	0.5	0.5	0.5	1.7
Vinyl chloride	1.8	0.5	0.5	0.5	0.5
Chloroform	0.5	9.5	0.5	6.3	5.1
Flow (gpm)	0.28	49	27.1	76.38	50
07/21/21					
COCs					
cis-1,2-DCE	3.4	0.5	0.56	0.5	4.8
TCE	0.5	0.5	0.5	0.5	2.1
Vinyl chloride	3.0	0.5	0.5	0.5	0.5
Chloroform	0.5	11.1	0.5	6.6	5.5
Flow (gpm)	0.48	65	48	113.48	60
08/02/21					
COCs					
cis-1,2-DCE	2.7	0.5	0.88	0.8	6.3
TCE	0.5	0.5	0.5	0.5	3.7
Vinyl chloride	2.5	0.5	0.5	0.5	0.5
Chloroform	0.5	13.1	0.5	3.2	11.8
Flow (gpm)	0.3	5.5	20.4	25.9	16.7
08/17/21					
COCs					
cis-1,2-DCE	1.5	0.5	0.5	0.5	1.4
TCE	0.5	0.5	0.5	0.5	0.61
Vinyl chloride	1.8	0.5	0.5	0.5	0.5
Chloroform	0.5	1.6	0.5	0.7	1.0
Flow (gpm)	2.75	200	750	952.75	1,000
09/09/21					
COCs					
cis-1,2-DCE	3.0	1.0	0.68	0.9	8.4
TCE	0.5	0.5	0.5	0.5	5.0
Vinyl chloride	3.7	0.5	0.5	0.5	0.5
Chloroform	0.5	4.8	0.5	3.4	3.8
Flow (gpm)	0.58	25	12.1	37.68	14.2
09/16/21					
COCs					
cis-1,2-DCE	0.79	0.92	0.53	0.7	7.6
TCE	0.5	0.5	0.5	0.5	4.5
Vinyl chloride	1.2	0.5	0.5	0.5	0.5
Chloroform	0.5	5.7	0.5	2.6	4.6
Flow (gpm)	0.75	19	27.1	46.85	23.2
11/08/21					
COCs					
cis-1,2-DCE	6.0	0.5	0.5	0.8	7.9
TCE	0.5	0.5	0.5	0.5	2.6
Vinyl chloride	9.0	0.5	0.5	1.0	0.5
Chloroform	0.5	9.5	0.5	6.8	7.5
Flow (gpm)	0.9	10	3.5	14.4	9

Retaining Wall Sump, Outfalls 001 and 011, and Weir Box Seeps

	COC Concentrations (µg/l)					
	Retaining Wall Sump	Outfall 001	Outfall 011	Weir Box Seeps	WAVG LWS	Actual LWS
07/01/21						
COCs						
cis-1,2-DCE	1.0	0.5	0.82	135	1.9	4.8
TCE	0.5	0.5	0.5	20.5	0.7	2.4
Vinyl chloride	0.94	0.5	0.5	12.2	0.6	0.5
Chloroform	0.5	7.9	0.5	0.5	4.2	7.7
Flow (gpm)	0.31	22	21.8	0.4	44.51	18
07/08/21						
COCs						
cis-1,2-DCE	2.6	0.66	0.74	135	1.1	3.8
TCE	0.5	0.5	0.5	16.6	0.6	1.7
Vinyl chloride	1.8	0.5	0.5	13.6	0.5	0.5
Chloroform	0.5	9.5	0.5	0.5	6.3	5.1
Flow (gpm)	0.28	49	27.1	0.25	76.63	50
07/21/21						
COCs						
cis-1,2-DCE	3.4	0.5	0.56	159	0.9	4.8
TCE	0.5	0.5	0.5	20.3	0.5	2.1
Vinyl chloride	3.0	0.5	0.5	21.2	0.6	0.5
Chloroform	0.5	11.1	0.5	0.5	6.6	5.5
Flow (gpm)	0.48	65	48	0.25	113.73	60
08/02/21						
COCs						
cis-1,2-DCE	2.7	0.5	0.88	123	2.0	6.3
TCE	0.5	0.5	0.5	14	0.6	3.7
Vinyl chloride	2.5	0.5	0.5	20.7	0.7	0.5
Chloroform	0.5	13.1	0.5	0.5	3.1	11.8
Flow (gpm)	0.30	5.5	20.4	0.25	26.45	16.7
08/17/21						
COCs						
cis-1,2-DCE	1.5	0.5	0.5	43.2	0.5	1.4
TCE	0.5	0.5	0.5	4.0	0.5	0.61
Vinyl chloride	1.8	0.5	0.5	6.6	0.5	0.5
Chloroform	0.5	1.6	0.5	1.0	0.7	1
Flow (gpm)	2.75	200	750	0.25	953.00	1,000
09/09/21						
COCs						
cis-1,2-DCE	3.0	1.0	0.68	117	2.4	8.4
TCE	0.5	0.5	0.5	18.1	0.7	5.0
Vinyl chloride	3.7	0.5	0.5	20.7	0.8	0.5
Chloroform	0.5	4.8	0.5	0.5	3.3	3.8
Flow (gpm)	0.58	25	12.1	0.5	38.18	14.2
09/16/21						
COCs						
cis-1,2-DCE	0.79	0.92	0.53	128	2.3	7.6
TCE	0.5	0.5	0.5	18.5	0.7	4.5
Vinyl chloride	1.2	0.5	0.5	19.3	0.7	0.5
Chloroform	0.5	5.7	0.5	0.5	2.6	4.6
Flow (gpm)	0.75	19	27.1	0.6	47.45	23.2
11/08/21						
COCs						
cis-1,2-DCE	6.0	0.5	0.5	161	1.9	7.9
TCE	0.5	0.5	0.5	12	0.6	2.6
Vinyl chloride	9.0	0.5	0.5	46.5	1.3	0.5
Chloroform	0.5	9.5	0.5	0.5	6.7	7.5
Flow (gpm)	0.9	10	3.5	0.1	14.5	9

Boxed values indicate exceedences of the NYSDEC Class GA groundwater standards
Yellow highlighted values indicate exceedences of the SPDES permit equivalent limits at Outfall 001 (TCE is only COC detected with a discharge limit)

a/ COC = constituent of concern; WAVG = weighted average; LWS = Lower Wooden Sluice; NYSDEC = New York State Department of Environmental Conservation; SPDES = State Pollutant Discharge Elimination System; µg/l = micrograms per liter; gpm = gallons per minute; DCE = dichloroethene; TCE = trichloroethene. Refer to Tables 2-1 and 2-2 for the groundwater criteria; the permit equivalent maximum daily limit for each of the COCs is 10 µg/l. The COCs listed are those detected in one or more sample at a concentrations above a groundwater or surface water standard, permit equivalent, or combination thereof. Excluding the WAVG values, all concentrations are as reported by the laboratory; values of 1/2 of the detection limit were used when COCs were non-detect.

b/ The WAVGs represents the combined flows for the source noted and which are equivalent the the LWS in the absence of discharge from Outfall 011.

APPENDIX

A LABORATORY AND DATA VALIDATION REPORTS

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/01

SGS Job Number: JD4518

Sampling Date: 03/11/20

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinart@wsp.com
ATTN: Amy Romano

Total number of pages in report: 27

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Laura Degenhardt
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5 6

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD4518

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD4518-1	03/11/20	13:00	NW	03/12/20	AQ	Water	BD24SEEP031120
JD4518-2	03/11/20	13:25	NW	03/12/20	AQ	Water	OPEN DITCH1 031120

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD4518
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	3/17/2020 9:00:16 AM

On 03/12/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD4518 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V3D6559

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD4515-5MS, JD4515-6DUP, JD4515-5MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Carbon disulfide, Methylene chloride are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for Duplicate for cis-1,2-Dichloroethene are outside control limits for sample JD4515-6DUP. RPD acceptable due to low DUP and sample concentrations.
- JD4518-1 for Bromomethane: Associated CCV outside of control limits low.
- JD4518-1 for Chloroethane: Associated CCV outside of control limits low.
- JD4518-1 for Vinyl chloride: Associated CCV outside of control limits low.
- JD4518-2 for Bromomethane: Associated CCV outside of control limits low.
- JD4518-2 for Chloroethane: Associated CCV outside of control limits low.
- JD4518-2 for Vinyl chloride: Associated CCV outside of control limits low.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD4518
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 03/11/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD4518-1	**BD24SEEP031120**					
cis-1,2-Dichloroethene		0.66 J	1.0	0.51	ug/l	SW846 8260C
Trichloroethene		4.9	1.0	0.53	ug/l	SW846 8260C
JD4518-2	**OPEN DITCH1 031120**					

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD24SEEP031120		
Lab Sample ID:	JD4518-1	**Date Sampled:**	03/11/20
Matrix:	AQ - Water	**Date Received:**	03/12/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D153507.D	1	03/13/20 16:45	DG	n/a	n/a	V3D6559
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.66	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24SEEP031120		
Lab Sample ID:	JD4518-1	**Date Sampled:**	03/11/20
Matrix:	AQ - Water	**Date Received:**	03/12/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.9	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH1 031120		
Lab Sample ID:	JD4518-2	**Date Sampled:**	03/11/20
Matrix:	AQ - Water	**Date Received:**	03/12/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D153508.D	1	03/13/20 17:10	DG	n/a	n/a	V3D6559
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH1 031120		
Lab Sample ID:	JD4518-2	**Date Sampled:**	03/11/20
Matrix:	AQ - Water	**Date Received:**	03/12/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

W W

CHAIN-OF-CUSTODY RECORD FX #1019 2813 7942

Page 1 of 1

No. 008886 — wsp

WSP USA Office Address: 7000 E GENESEE ST BD D 2ND FLOOR FAYETTEVILLE NY

Project Name: EMERSUBIS, LLC

WSP USA Contact Name: NATE WINSTON

Project Location: ITHACA, NY

WSP USA Contact E-mail: NATHANIEL.WINSTON @wsp.com

Project Number & Task: 31401545.001/01

WSP USA Contact Phone: 315-420-9973

Sampler(s) Name(s): NATE WINSTON

Sampler(s) Signature(s): [signature]

Laboratory Name & Location: SGS, DAYTON

Laboratory Project Manager: JD4518

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Requested Analyses & Preservatives: 8260 VOC

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOC	Sample Comments
1	BD245EE031120	AQ	—	—	3/11/20	1300	3	X	
2	OPEN DITCH1 031120	AQ	—	—	3/11/20	1325	3	X	

V9

Initial Assessment 3B 0 7z

Label Verification

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	3/11/20	1600	FX			FedEx	doBAY NTW

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
FX	3/12/2020	1010	[signature]			1	1034

IR-Y ICE ✓ 2.0°C

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

SGS Sample Receipt Summary

Job Number: JD4518 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 3/12/2020 10:10:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.0);

Cooler Temps (Corrected) °C: Cooler 1: (1.7);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6559-MB	3D153488.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6559-MB	3D153488.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	81-124%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	103%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	1.44	6.6	ug/l	J
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6559-BS	3D153486.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	207	104	42-150
71-43-2	Benzene	50	48.1	96	80-120
75-27-4	Bromodichloromethane	50	50.5	101	83-120
75-25-2	Bromoform	50	51.1	102	76-129
74-83-9	Bromomethane	50	38.4	77	57-138
78-93-3	2-Butanone (MEK)	200	206	103	64-137
75-15-0	Carbon disulfide	50	34.0	68	64-137
56-23-5	Carbon tetrachloride	50	46.4	93	75-135
108-90-7	Chlorobenzene	50	47.8	96	84-117
75-00-3	Chloroethane	50	35.4	71	63-132
67-66-3	Chloroform	50	46.8	94	80-119
74-87-3	Chloromethane	50	39.7	79	46-136
110-82-7	Cyclohexane	50	49.1	98	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	48.0	96	72-127
124-48-1	Dibromochloromethane	50	51.6	103	80-123
106-93-4	1,2-Dibromoethane	50	51.9	104	84-117
95-50-1	1,2-Dichlorobenzene	50	48.1	96	84-119
541-73-1	1,3-Dichlorobenzene	50	48.2	96	81-117
106-46-7	1,4-Dichlorobenzene	50	46.9	94	82-117
75-71-8	Dichlorodifluoromethane	50	42.2	84	36-149
75-34-3	1,1-Dichloroethane	50	47.6	95	79-120
107-06-2	1,2-Dichloroethane	50	47.3	95	78-126
75-35-4	1,1-Dichloroethene	50	40.4	81	69-126
156-59-2	cis-1,2-Dichloroethene	50	47.1	94	80-120
156-60-5	trans-1,2-Dichloroethene	50	45.3	91	76-120
78-87-5	1,2-Dichloropropane	50	50.6	101	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.1	106	83-120
10061-02-6	trans-1,3-Dichloropropene	50	50.5	101	82-121
100-41-4	Ethylbenzene	50	47.7	95	80-120
76-13-1	Freon 113	50	40.0	80	62-182
591-78-6	2-Hexanone	200	199	100	65-132
98-82-8	Isopropylbenzene	50	49.5	99	83-120
79-20-9	Methyl Acetate	50	48.1	96	67-129
108-87-2	Methylcyclohexane	50	50.3	101	71-134
1634-04-4	Methyl Tert Butyl Ether	50	52.8	106	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	202	101	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6559-BS	3D153486.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	46.6	93	77-120
100-42-5	Styrene	50	49.0	98	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	45.6	91	76-119
127-18-4	Tetrachloroethene	50	49.0	98	70-131
108-88-3	Toluene	50	46.6	93	80-120
120-82-1	1,2,4-Trichlorobenzene	50	56.5	113	79-132
71-55-6	1,1,1-Trichloroethane	50	46.6	93	81-128
79-00-5	1,1,2-Trichloroethane	50	49.3	99	83-118
79-01-6	Trichloroethene	50	52.1	104	80-120
75-69-4	Trichlorofluoromethane	50	45.6	91	64-136
75-01-4	Vinyl chloride	50	38.7	77	51-135
1330-20-7	Xylene (total)	150	145	97	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	93%	81-124%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4515-5MS	3D153497.D	1	03/13/20	DG	n/a	n/a	V3D6559
JD4515-5	3D153491.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	JD4515-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	128	64	34-149
71-43-2	Benzene	ND		50	38.7	77	54-136
75-27-4	Bromodichloromethane	ND		50	44.4	89	79-124
75-25-2	Bromoform	ND		50	41.5	83	71-130
74-83-9	Bromomethane	ND		50	38.2	76	53-142
78-93-3	2-Butanone (MEK)	ND		200	158	79	54-142
75-15-0	Carbon disulfide	ND		50	28.6	57* [a]	59-145
56-23-5	Carbon tetrachloride	ND		50	40.4	81	70-143
108-90-7	Chlorobenzene	ND		50	41.6	83	78-123
75-00-3	Chloroethane	ND		50	39.9	80	57-141
67-66-3	Chloroform	ND		50	40.2	80	76-123
74-87-3	Chloromethane	ND		50	44.8	90	43-141
110-82-7	Cyclohexane	ND		50	54.9	110	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	41.3	83	66-130
124-48-1	Dibromochloromethane	ND		50	43.2	86	76-125
106-93-4	1,2-Dibromoethane	ND		50	44.5	89	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	39.5	79	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	39.5	79	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	38.2	76	76-122
75-71-8	Dichlorodifluoromethane	ND		50	56.0	112	31-159
75-34-3	1,1-Dichloroethane	ND		50	38.7	77	73-126
107-06-2	1,2-Dichloroethane	ND		50	39.0	78	72-131
75-35-4	1,1-Dichloroethene	ND		50	33.0	66	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	38.3	77	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	35.9	72	70-126
78-87-5	1,2-Dichloropropane	ND		50	43.1	86	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	45.8	92	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	43.2	86	77-123
100-41-4	Ethylbenzene	ND		50	41.8	84	51-140
76-13-1	Freon 113	ND		50	37.9	76	60-192
591-78-6	2-Hexanone	ND		200	177	89	56-139
98-82-8	Isopropylbenzene	ND		50	43.7	87	75-129
79-20-9	Methyl Acetate	ND		50	31.4	63	55-131
108-87-2	Methylcyclohexane	ND		50	46.1	92	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	38.0	76	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	182	91	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4515-5MS	3D153497.D	1	03/13/20	DG	n/a	n/a	V3D6559
JD4515-5	3D153491.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	JD4515-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	36.1	72* [a]	73-125
100-42-5	Styrene	ND		50	41.6	83	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	40.1	80	71-122
127-18-4	Tetrachloroethene	ND		50	43.9	88	61-139
108-88-3	Toluene	ND		50	40.7	81	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	46.3	93	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	39.7	79	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	42.3	85	78-121
79-01-6	Trichloroethene	ND		50	43.3	87	62-141
75-69-4	Trichlorofluoromethane	ND		50	53.6	107	57-149
75-01-4	Vinyl chloride	ND		50	40.9	82	43-146
1330-20-7	Xylene (total)	ND		150	127	85	56-139

CAS No.	Surrogate Recoveries	MS	JD4515-5	Limits
1868-53-7	Dibromofluoromethane	97%	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	96%	81-124%
2037-26-5	Toluene-D8	96%	96%	80-120%
460-00-4	4-Bromofluorobenzene	101%	104%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4515-6DUP	3D153499.D	1	03/13/20	DG	n/a	n/a	V3D6559
JD4515-6	3D153492.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	JD4515-6 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	0.71	J	ND		200* [a]	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD4515-6DUP	3D153499.D	1	03/13/20	DG	n/a	n/a	V3D6559
JD4515-6	3D153492.D	1	03/13/20	DG	n/a	n/a	V3D6559

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD4518-1, JD4518-2

CAS No.	Compound	JD4515-6 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD4515-6	Limits
1868-53-7	Dibromofluoromethane	97%	96%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	96%	81-124%
2037-26-5	Toluene-D8	97%	96%	80-120%
460-00-4	4-Bromofluorobenzene	104%	103%	80-120%

(a) RPD acceptable due to low DUP and sample concentrations.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V3D6534-BFB	**Injection Date:**	02/16/20
Lab File ID:	3D152823.D	**Injection Time:**	12:06
Instrument ID:	GCMS3D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	19300	21.2		Pass
75	30.0 - 60.0% of mass 95	46490	51.1		Pass
95	Base peak, 100% relative abundance	90938	100.0		Pass
96	5.0 - 9.0% of mass 95	6093	6.70		Pass
173	Less than 2.0% of mass 174	881	0.97	(1.16) [a]	Pass
174	50.0 - 120.0% of mass 95	75832	83.4		Pass
175	5.0 - 9.0% of mass 174	5685	6.25	(7.50) [a]	Pass
176	95.0 - 101.0% of mass 174	73293	80.6	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	4623	5.08	(6.31) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6534-IC6534	3D152824.D	02/16/20	12:38	00:32	Initial cal 0.2
V3D6534-IC6534	3D152825.D	02/16/20	13:02	00:56	Initial cal 0.5
V3D6534-IC6534	3D152826.D	02/16/20	13:27	01:21	Initial cal 1
V3D6534-IC6534	3D152827.D	02/16/20	13:53	01:47	Initial cal 2
V3D6534-IC6534	3D152828.D	02/16/20	14:18	02:12	Initial cal 4
V3D6534-IC6534	3D152829.D	02/16/20	14:43	02:37	Initial cal 8
V3D6534-IC6534	3D152830.D	02/16/20	15:08	03:02	Initial cal 20
V3D6534-ICC6534	3D152831.D	02/16/20	15:33	03:27	Initial cal 50
V3D6534-IC6534	3D152832.D	02/16/20	15:58	03:52	Initial cal 100
V3D6534-IC6534	3D152833.D	02/16/20	16:23	04:17	Initial cal 200
V3D6534-ICV6534	3D152836.D	02/16/20	17:38	05:32	Initial cal verification 50
V3D6534-ICV6534	3D152837.D	02/16/20	18:03	05:57	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V3D6534-BFB2	**Injection Date:**	02/17/20
Lab File ID:	3D152839.D	**Injection Time:**	07:52
Instrument ID:	GCMS3D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	21648	21.8		Pass
75	30.0 - 60.0% of mass 95	51162	51.6		Pass
95	Base peak, 100% relative abundance	99165	100.0		Pass
96	5.0 - 9.0% of mass 95	6455	6.51		Pass
173	Less than 2.0% of mass 174	898	0.91	(1.10) [a]	Pass
174	50.0 - 120.0% of mass 95	81472	82.2		Pass
175	5.0 - 9.0% of mass 174	5993	6.04	(7.36) [a]	Pass
176	95.0 - 101.0% of mass 174	78952	79.6	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	5314	5.36	(6.73) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6534-ICV6534	3D152840.D	02/17/20	08:55	01:03	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V3D6559-BFB	**Injection Date:**	03/13/20
Lab File ID:	3D153484.D	**Injection Time:**	06:56
Instrument ID:	GCMS3D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	26848	19.8		Pass
75	30.0 - 60.0% of mass 95	67440	49.7		Pass
95	Base peak, 100% relative abundance	135632	100.0		Pass
96	5.0 - 9.0% of mass 95	8870	6.54		Pass
173	Less than 2.0% of mass 174	1088	0.80	(1.03) [a]	Pass
174	50.0 - 120.0% of mass 95	106104	78.2		Pass
175	5.0 - 9.0% of mass 174	7983	5.89	(7.52) [a]	Pass
176	95.0 - 101.0% of mass 174	104408	77.0	(98.4) [a]	Pass
177	5.0 - 9.0% of mass 176	6943	5.12	(6.65) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6559-CC6534	3D153484.D	03/13/20	06:56	00:00	Continuing cal 20
V3D6559-BS	3D153486.D	03/13/20	08:00	01:04	Blank Spike
V3D6559-MB	3D153488.D	03/13/20	08:50	01:54	Method Blank
ZZZZZZ	3D153489.D	03/13/20	09:15	02:19	(unrelated sample)
ZZZZZZ	3D153490.D	03/13/20	09:40	02:44	(unrelated sample)
JD4515-5	3D153491.D	03/13/20	10:05	03:09	(used for QC only; not part of job JD4518)
JD4515-6	3D153492.D	03/13/20	10:30	03:34	(used for QC only; not part of job JD4518)
ZZZZZZ	3D153493.D	03/13/20	10:55	03:59	(unrelated sample)
ZZZZZZ	3D153494.D	03/13/20	11:20	04:24	(unrelated sample)
ZZZZZZ	3D153495.D	03/13/20	11:45	04:49	(unrelated sample)
ZZZZZZ	3D153496.D	03/13/20	12:10	05:14	(unrelated sample)
JD4515-5MS	3D153497.D	03/13/20	12:35	05:39	Matrix Spike
ZZZZZZ	3D153498.D	03/13/20	13:00	06:04	(unrelated sample)
JD4515-6DUP	3D153499.D	03/13/20	13:25	06:29	Duplicate
ZZZZZZ	3D153500.D	03/13/20	13:50	06:54	(unrelated sample)
ZZZZZZ	3D153501.D	03/13/20	14:15	07:19	(unrelated sample)
ZZZZZZ	3D153502.D	03/13/20	14:40	07:44	(unrelated sample)
ZZZZZZ	3D153503.D	03/13/20	15:05	08:09	(unrelated sample)
ZZZZZZ	3D153504.D	03/13/20	15:30	08:34	(unrelated sample)
ZZZZZZ	3D153505.D	03/13/20	15:55	08:59	(unrelated sample)
ZZZZZZ	3D153506.D	03/13/20	16:20	09:24	(unrelated sample)
JD4518-1	3D153507.D	03/13/20	16:45	09:49	BD24SEEP031120
JD4518-2	3D153508.D	03/13/20	17:10	10:14	OPEN DITCH1 031120
ZZZZZZ	3D153509.D	03/13/20	17:35	10:39	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V3D6559-BFB	**Injection Date:**	03/13/20
Lab File ID:	3D153484.D	**Injection Time:**	06:56
Instrument ID:	GCMS3D		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3D153510.D	03/13/20	18:00	11:04	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD4518
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD4518-1	3D153507.D	97	97	96	104
JD4518-2	3D153508.D	99	98	95	102
JD4515-5MS	3D153497.D	97	94	96	101
JD4515-6DUP	3D153499.D	97	95	97	104
V3D6559-BS	3D153486.D	99	93	96	100
V3D6559-MB	3D153488.D	97	97	96	103

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/TASK 01.63

SGS Job Number: JD5776

Sampling Date: 04/07/20

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 29

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Laura Degenhardt
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5 6

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD5776

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 01.63

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD5776-1	04/07/20	12:00	NW	04/08/20	AQ	Water	OPEN DITCH 001 040720
JD5776-2	04/07/20	12:15	NW	04/08/20	AQ	Water	BD24SEEP 040720

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD5776
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	4/21/2020 10:22:49 A

On 04/08/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD5776 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2D8181

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD5776-1MS, JD5776-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for cis-1,2-Dichloroethene are outside control limits for sample JD5776-2DUP. RPD acceptable due to low DUP and sample concentrations.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD5776
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 04/07/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD5776-1	**OPEN DITCH 001 040720**					
No hits reported in this sample.						
JD5776-2	**BD24SEEP 040720**					
cis-1,2-Dichloroethene		1.8	1.0	0.51	ug/l	SW846 8260C
Trichloroethene		14.1	1.0	0.53	ug/l	SW846 8260C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OPEN DITCH 001 040720		
Lab Sample ID:	JD5776-1	**Date Sampled:**	04/07/20
Matrix:	AQ - Water	**Date Received:**	04/08/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D189492.D	1	04/11/20 01:56	KC	n/a	n/a	V2D8181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 040720		
Lab Sample ID:	JD5776-1	**Date Sampled:**	04/07/20
Matrix:	AQ - Water	**Date Received:**	04/08/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24SEEP 040720		
Lab Sample ID:	JD5776-2	**Date Sampled:**	04/07/20
Matrix:	AQ - Water	**Date Received:**	04/08/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D189493.D	1	04/11/20 02:26	KC	n/a	n/a	V2D8181
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24SEEP 040720		
Lab Sample ID:	JD5776-2	**Date Sampled:**	04/07/20
Matrix:	AQ - Water	**Date Received:**	04/08/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	14.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

wsp ww

Chain of Custody Form

WSP Office Address: 7000 East Genesee, Building D, 2nd Floor, Fayetteville, NY 13066		No. JD5776
Project Name: Former EPT Ithaca	WSP Contact Name: Jeffrey Baker	Laboratory Name & Location: SGS NJ
Project Location: Ithaca, NY	WSP Contact E-mail: Jeffrey.Baker@wsp.com	Laboratory Project Manager:
Project Number & Task: 31401545.001 Task 01.63	WSP Contact Phone: 724-882-9723	Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR
Sampler(s) Name(s): Nate Winston	Sampler(s) Signature(s): [signature]	

Requested Analyses & Preservatives

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs	Sample Comments
1	[redacted] OPEN DITCH 001 040920	Aq	—	—	4/7/20	1200	3	X	
2	[redacted] BD24 SEEP 040720	Aq	—	—	4/7/20	1215	3	X	
	[redacted]								
	[redacted]								V242

Initial Assessment B/JP

Label Verification______

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	4/7/20	1530	FEDX			FedEx	
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
FedEx	4-8-20	9:30	[signature]	4/8/20	930	1	2.6°C

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ - Aqueous, S - Soil, SE - Sediment, A - Air, W - Wipe, B - Bulk, O - Other (detail in comments)

5.1 5

JD5776: Chain of Custody

Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD5776 **Client:** _____ **Project:** _____

Date / Time Received: 4/8/2020 9:30:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (2.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8181-MB	2D189484.D	1	04/10/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8181-MB	2D189484.D	1	04/10/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	94%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8181-MB2	2D189505.D	1	04/11/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-2DUP, JD5776-1MS

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8181-MB2	2D189505.D	1	04/11/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-2DUP, JD5776-1MS

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8181-BS	2D189482.D	1	04/10/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	213	107	42-150
71-43-2	Benzene	50	48.8	98	80-120
75-27-4	Bromodichloromethane	50	51.9	104	83-120
75-25-2	Bromoform	50	60.0	120	76-129
74-83-9	Bromomethane	50	49.5	99	57-138
78-93-3	2-Butanone (MEK)	200	212	106	64-137
75-15-0	Carbon disulfide	50	48.3	97	64-137
56-23-5	Carbon tetrachloride	50	52.5	105	75-135
108-90-7	Chlorobenzene	50	51.1	102	84-117
75-00-3	Chloroethane	50	50.9	102	63-132
67-66-3	Chloroform	50	49.5	99	80-119
74-87-3	Chloromethane	50	49.8	100	46-136
110-82-7	Cyclohexane	50	46.9	94	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	53.1	106	72-127
124-48-1	Dibromochloromethane	50	54.9	110	80-123
106-93-4	1,2-Dibromoethane	50	55.9	112	84-117
95-50-1	1,2-Dichlorobenzene	50	51.2	102	84-119
541-73-1	1,3-Dichlorobenzene	50	51.4	103	81-117
106-46-7	1,4-Dichlorobenzene	50	51.4	103	82-117
75-71-8	Dichlorodifluoromethane	50	49.0	98	36-149
75-34-3	1,1-Dichloroethane	50	49.6	99	79-120
107-06-2	1,2-Dichloroethane	50	48.3	97	78-126
75-35-4	1,1-Dichloroethene	50	51.4	103	69-126
156-59-2	cis-1,2-Dichloroethene	50	51.0	102	80-120
156-60-5	trans-1,2-Dichloroethene	50	50.5	101	76-120
78-87-5	1,2-Dichloropropane	50	50.6	101	82-121
10061-01-5	cis-1,3-Dichloropropene	50	51.2	102	83-120
10061-02-6	trans-1,3-Dichloropropene	50	52.4	105	82-121
100-41-4	Ethylbenzene	50	48.3	97	80-120
76-13-1	Freon 113	50	49.3	99	62-182
591-78-6	2-Hexanone	200	206	103	65-132
98-82-8	Isopropylbenzene	50	49.5	99	83-120
79-20-9	Methyl Acetate	50	46.8	94	67-129
108-87-2	Methylcyclohexane	50	48.7	97	71-134
1634-04-4	Methyl Tert Butyl Ether	50	48.9	98	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	210	105	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D8181-BS	2D189482.D	1	04/10/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	49.8	100	77-120
100-42-5	Styrene	50	50.7	101	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.6	99	76-119
127-18-4	Tetrachloroethene	50	52.7	105	70-131
108-88-3	Toluene	50	48.9	98	80-120
120-82-1	1,2,4-Trichlorobenzene	50	53.1	106	79-132
71-55-6	1,1,1-Trichloroethane	50	49.8	100	81-128
79-00-5	1,1,2-Trichloroethane	50	51.7	103	83-118
79-01-6	Trichloroethene	50	53.7	107	80-120
75-69-4	Trichlorofluoromethane	50	53.5	107	64-136
75-01-4	Vinyl chloride	50	47.9	96	51-135
1330-20-7	Xylene (total)	150	148	99	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5776-1MS	2D189507.D	1	04/11/20	KC	n/a	n/a	V2D8181
JD5776-1	2D189492.D	1	04/11/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	JD5776-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	194	97	34-149
71-43-2	Benzene	ND		50	44.2	88	54-136
75-27-4	Bromodichloromethane	ND		50	46.6	93	79-124
75-25-2	Bromoform	ND		50	52.9	106	71-130
74-83-9	Bromomethane	ND		50	54.5	109	53-142
78-93-3	2-Butanone (MEK)	ND		200	192	96	54-142
75-15-0	Carbon disulfide	ND		50	43.5	87	59-145
56-23-5	Carbon tetrachloride	ND		50	49.2	98	70-143
108-90-7	Chlorobenzene	ND		50	46.2	92	78-123
75-00-3	Chloroethane	ND		50	55.7	111	57-141
67-66-3	Chloroform	ND		50	44.8	90	76-123
74-87-3	Chloromethane	ND		50	56.4	113	43-141
110-82-7	Cyclohexane	ND		50	55.0	110	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	47.1	94	66-130
124-48-1	Dibromochloromethane	ND		50	48.7	97	76-125
106-93-4	1,2-Dibromoethane	ND		50	50.4	101	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	46.2	92	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	46.8	94	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	46.2	92	76-122
75-71-8	Dichlorodifluoromethane	ND		50	60.7	121	31-159
75-34-3	1,1-Dichloroethane	ND		50	45.0	90	73-126
107-06-2	1,2-Dichloroethane	ND		50	43.5	87	72-131
75-35-4	1,1-Dichloroethene	ND		50	45.9	92	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	46.1	92	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	45.8	92	70-126
78-87-5	1,2-Dichloropropane	ND		50	45.8	92	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	45.9	92	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	46.5	93	77-123
100-41-4	Ethylbenzene	ND		50	44.3	89	51-140
76-13-1	Freon 113	ND		50	46.5	93	60-192
591-78-6	2-Hexanone	ND		200	192	96	56-139
98-82-8	Isopropylbenzene	ND		50	46.3	93	75-129
79-20-9	Methyl Acetate	ND		50	42.5	85	55-131
108-87-2	Methylcyclohexane	ND		50	48.2	96	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	42.3	85	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	191	96	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5776-1MS	2D189507.D	1	04/11/20	KC	n/a	n/a	V2D8181
JD5776-1	2D189492.D	1	04/11/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	JD5776-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	43.7	87	73-125
100-42-5	Styrene	ND		50	45.3	91	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	44.5	89	71-122
127-18-4	Tetrachloroethene	ND		50	49.4	99	61-139
108-88-3	Toluene	ND		50	44.5	89	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	48.8	98	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	45.8	92	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	45.7	91	78-121
79-01-6	Trichloroethene	ND		50	49.8	100	62-141
75-69-4	Trichlorofluoromethane	ND		50	62.7	125	57-149
75-01-4	Vinyl chloride	ND		50	55.4	111	43-146
1330-20-7	Xylene (total)	ND		150	136	91	56-139

CAS No.	Surrogate Recoveries	MS	JD5776-1	Limits
1868-53-7	Dibromofluoromethane	105%	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	99%	81-124%
2037-26-5	Toluene-D8	98%	98%	80-120%
460-00-4	4-Bromofluorobenzene	94%	95%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5776-2DUP	2D189506.D	1	04/11/20	KC	n/a	n/a	V2D8181
JD5776-2	2D189493.D	1	04/11/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	JD5776-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	1.8		2.7		40* [a]	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD5776-2DUP	2D189506.D	1	04/11/20	KC	n/a	n/a	V2D8181
JD5776-2	2D189493.D	1	04/11/20	KC	n/a	n/a	V2D8181

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD5776-1, JD5776-2

CAS No.	Compound	JD5776-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	14.1		15.0		6	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD5776-2	Limits
1868-53-7	Dibromofluoromethane	104%	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	102%	100%	81-124%
2037-26-5	Toluene-D8	98%	98%	80-120%
460-00-4	4-Bromofluorobenzene	95%	95%	80-120%

(a) RPD acceptable due to low DUP and sample concentrations.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2D8121-BFB	**Injection Date:**	02/16/20
Lab File ID:	2D188393.D	**Injection Time:**	12:15
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	20338	16.6		Pass
75	30.0 - 60.0% of mass 95	54048	44.2		Pass
95	Base peak, 100% relative abundance	122213	100.0		Pass
96	5.0 - 9.0% of mass 95	8222	6.73		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	113165	92.6		Pass
175	5.0 - 9.0% of mass 174	8580	7.02	(7.58) [a]	Pass
176	95.0 - 101.0% of mass 174	110882	90.7	(98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	7315	5.99	(6.60) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8121-IC8121	2D188394.D	02/16/20	12:53	00:38	Initial cal 0.2
V2D8121-IC8121	2D188395.D	02/16/20	13:23	01:08	Initial cal 0.5
V2D8121-IC8121	2D188396.D	02/16/20	13:52	01:37	Initial cal 1
V2D8121-IC8121	2D188397.D	02/16/20	14:22	02:07	Initial cal 2
V2D8121-IC8121	2D188398.D	02/16/20	14:51	02:36	Initial cal 4
V2D8121-IC8121	2D188399.D	02/16/20	15:21	03:06	Initial cal 8
V2D8121-IC8121	2D188400.D	02/16/20	15:51	03:36	Initial cal 20
V2D8121-ICC8121	2D188401.D	02/16/20	16:20	04:05	Initial cal 50
V2D8121-IC8121	2D188402.D	02/16/20	16:50	04:35	Initial cal 100
V2D8121-IC8121	2D188403.D	02/16/20	17:19	05:04	Initial cal 200
V2D8121-ICV8121	2D188406.D	02/16/20	18:47	06:32	Initial cal verification 50
V2D8121-ICV8121	2D188407.D	02/16/20	19:17	07:02	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2D8121-BFB2	**Injection Date:**	02/17/20
Lab File ID:	2D188410.D	**Injection Time:**	08:37
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	21077	16.3		Pass
75	30.0 - 60.0% of mass 95	56946	44.1		Pass
95	Base peak, 100% relative abundance	129184	100.0		Pass
96	5.0 - 9.0% of mass 95	8134	6.30		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	124813	96.6		Pass
175	5.0 - 9.0% of mass 174	9093	7.04	(7.29) [a]	Pass
176	95.0 - 101.0% of mass 174	122973	95.2	(98.5) [a]	Pass
177	5.0 - 9.0% of mass 176	7950	6.15	(6.46) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8121-ICV8121	2D188411.D	02/17/20	09:07	00:30	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2D8181-BFB	**Injection Date:**	04/10/20
Lab File ID:	2D189481.D	**Injection Time:**	20:27
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19320	15.2		Pass
75	30.0 - 60.0% of mass 95	55131	43.5		Pass
95	Base peak, 100% relative abundance	126709	100.0		Pass
96	5.0 - 9.0% of mass 95	8714	6.88		Pass
173	Less than 2.0% of mass 174	435	0.34	(0.33) [a]	Pass
174	50.0 - 120.0% of mass 95	131491	103.8		Pass
175	5.0 - 9.0% of mass 174	9693	7.65	(7.37) [a]	Pass
176	95.0 - 101.0% of mass 174	129067	101.9	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	8518	6.72	(6.60) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8181-CC8121	2D189481.D	04/10/20	20:27	00:00	Continuing cal 50
V2D8181-BS	2D189482.D	04/10/20	21:00	00:33	Blank Spike
V2D8181-MB	2D189484.D	04/10/20	21:59	01:32	Method Blank
ZZZZZZ	2D189486.D	04/10/20	22:58	02:31	(unrelated sample)
ZZZZZZ	2D189487.D	04/10/20	23:28	03:01	(unrelated sample)
ZZZZZZ	2D189488.D	04/10/20	23:58	03:31	(unrelated sample)
ZZZZZZ	2D189489.D	04/11/20	00:27	04:00	(unrelated sample)
ZZZZZZ	2D189490.D	04/11/20	00:57	04:30	(unrelated sample)
ZZZZZZ	2D189491.D	04/11/20	01:26	04:59	(unrelated sample)
JD5776-1	2D189492.D	04/11/20	01:56	05:29	OPEN DITCH 001 040720
JD5776-2	2D189493.D	04/11/20	02:26	05:59	BD24SEEP 040720
ZZZZZZ	2D189494.D	04/11/20	02:55	06:28	(unrelated sample)
ZZZZZZ	2D189495.D	04/11/20	03:25	06:58	(unrelated sample)
ZZZZZZ	2D189496.D	04/11/20	03:55	07:28	(unrelated sample)
ZZZZZZ	2D189497.D	04/11/20	04:24	07:57	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2D8181-BFB2	**Injection Date:**	04/11/20
Lab File ID:	2D189502.D	**Injection Time:**	12:27
Instrument ID:	GCMS2D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19269	16.2		Pass
75	30.0 - 60.0% of mass 95	51491	43.3		Pass
95	Base peak, 100% relative abundance	118963	100.0		Pass
96	5.0 - 9.0% of mass 95	7811	6.57		Pass
173	Less than 2.0% of mass 174	456	0.38	(0.36) [a]	Pass
174	50.0 - 120.0% of mass 95	125600	105.6		Pass
175	5.0 - 9.0% of mass 174	9170	7.71	(7.30) [a]	Pass
176	95.0 - 101.0% of mass 174	123997	104.2	(98.7) [a]	Pass
177	5.0 - 9.0% of mass 176	8239	6.93	(6.64) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D8181-CC8121	2D189502.D	04/11/20	12:27	00:00	Continuing cal 50
V2D8181-BS2	2D189503.D	04/11/20	14:24	01:57	Blank Spike
V2D8181-MB2	2D189505.D	04/11/20	15:23	02:56	Method Blank
JD5776-2DUP	2D189506.D	04/11/20	18:04	05:37	Duplicate
JD5776-1MS	2D189507.D	04/11/20	18:34	06:07	Matrix Spike

Surrogate Recovery Summary

Job Number: JD5776
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD5776-1	2D189492.D	104	99	98	95
JD5776-2	2D189493.D	104	100	98	95
JD5776-1MS	2D189507.D	105	100	98	94
JD5776-2DUP	2D189506.D	104	102	98	95
V2D8181-BS	2D189482.D	103	97	98	95
V2D8181-MB	2D189484.D	103	100	99	94
V2D8181-MB2	2D189505.D	105	100	99	95

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/Task

SGS Job Number: JD7008

Sampling Date: 05/07/20

Report to:

WSP Environment & Energy

Nathaniel.Winston@wsp.com

ATTN: Nathaniel Winston

Total number of pages in report: 14

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5

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Sample Summary

WSP Environment & Energy

Job No: JD7008

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JD7008-1	05/07/20	12:00	NW	05/08/20	AQ	Ground Water	OPEN DITCH 001 050720
JD7008-2	05/07/20	12:15	NW	05/08/20	AQ	Ground Water	BD24 SEEP 050720

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD7008
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	5/12/2020 8:22:25 PM

On 05/08/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD7008 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2A8784

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD6886-1MS, JD6886-3DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Dichlorodifluoromethane are outside control limits. High percent recovery and no associated positive reported in the QC batch.
- JD7008-1 for Dichlorodifluoromethane: This compound in blank spike is outside in house QC limits bias high.
- JD7008-2 for Dichlorodifluoromethane: This compound in blank spike is outside in house QC limits bias high.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD7008
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 05/07/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD7008-1	**OPEN DITCH 001 050720**					
No hits reported in this sample.						
JD7008-2	**BD24 SEEP 050720**					
cis-1,2-Dichloroethene		2.5	1.0	0.51	ug/l	SW846 8260C
Trichloroethene		18.3	1.0	0.53	ug/l	SW846 8260C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OPEN DITCH 001 050720		
Lab Sample ID:	JD7008-1	**Date Sampled:**	05/07/20
Matrix:	AQ - Ground Water	**Date Received:**	05/08/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A202724.D	1	05/11/20 18:22	ED	n/a	n/a	V2A8784
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: OPEN DITCH 001 050720
Lab Sample ID: JD7008-1
Matrix: AQ - Ground Water
Method: SW846 8260C
Project: Emersub 15, LLC, Ithaca, NY

Date Sampled: 05/07/20
Date Received: 05/08/20
Percent Solids: n/a

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 050720		
Lab Sample ID:	JD7008-2	**Date Sampled:**	05/07/20
Matrix:	AQ - Ground Water	**Date Received:**	05/08/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A202725.D	1	05/11/20 18:51	ED	n/a	n/a	V2A8784
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 050720		
Lab Sample ID:	JD7008-2	**Date Sampled:**	05/07/20
Matrix:	AQ - Ground Water	**Date Received:**	05/08/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	18.3	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

wsp GW **Chain of Custody Form** 12156030 4872 Page 1 of 1

L

WSP Office Address		Requested Analyses & Preservatives	No. JD 7008
7000 East Genesee Street, Building D, 2nd Floor			
Project Name: Emersub 15, LLC	WSP Contact Name: Nathaniel Winston		Laboratory Name & Location: SGS, NJ
Project Location: Ithaca, NY	WSP Contact E-mail: NATHANIEL.WINSTON @wsp.com		Laboratory Project Manager:
Project Number & Task: 31401545.001/Task	WSP Contact Phone: 315-420-9975	8260 VOCs	Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR
Sampler(s) Name(s): Nathaniel Winston	Sampler(s) Signature(s): [signature]		

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs	Sample Comments
1	OPEN DITCH 001 050720	AQ	—		5/7/20	1200	3	X	V431
2	BD24 SEEP 050720	AQ	—		5/7/20	1215	3	X	V432

Initial Assessment 2A
Label Verification

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	5/7/20	1530	FedEx			FedEx	
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
FedEx	5/8/20	10:30	Jeemit Patel			1	2.3°C IR EK-1

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

JD7008: Chain of Custody
Page 1 of 3

SGS Sample Receipt Summary

Job Number: JD7008 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 5/8/2020 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.3);

Cooler Temps (Corrected) °C: Cooler 1: (2.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments -2 Collection time on COC states 12:15. Bottleware states 11:25. Please confirm collection time.

SM089-02 Rev. Date 12/1/16

Responded to by: Tammy Esposito McCloskey Response Date: 5/11/2020

-2 use collection time of 12:15 per Nathaniel Winston.

JD7008: Chain of Custody
Page 3 of 3

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001

SGS Job Number: JD8202

Sampling Date: 06/04/20

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 28

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Laura Degenhardt
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

June 17, 2020

Ms. Amy Romano
WSP USA
7000 E. Genesee Street
Building D, 2nd Floor
Fayetteville, NY 13066

RE: SGS – Dayton, Job # JD8202 – Reissues

Dear Ms. Romano,

The final report for SGS jobs number JD8202 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

Specifically, the TIC compounds has been omitted from both samples per your request. The attached revised report incorporates these revisions.

SGS apologizes for this occurrence and for any inconvenience this situation may have caused. Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.

CONTINUOUS SERVICE IMPROVEMENT!

Our goal is to continuously improve our service to you. Please share your ideas about how we can serve you better at EHS.US.CustomerCare@sgs.com. Your feedback is appreciated!

Sections: 1 2 3 4 5 6

Table of Contents

SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD8202

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD8202-1	06/04/20	11:40	NW	06/05/20	AQ	Water	OPEN DITCH 001 060420
JD8202-2	06/04/20	12:00	NW	06/05/20	AQ	Water	BD24 SEEP 060420

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD8202
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	6/16/2020 9:17:49 AM

On 06/05/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD8202 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V1A8705

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD8202-1MS, JD8202-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- V1A8705-MB for 1,1,2,2-Tetrachloroethane: MDL from current instrument.
- V1A8705-MB for Dibromochloromethane: MDL from current instrument.
- JD8202-1 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD8202-2 for Bromomethane: Associated CCV outside of control limits high, sample was ND.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD8202
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 06/04/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD8202-1	**OPEN DITCH 001 060420**					
No hits reported in this sample.						
JD8202-2	**BD24 SEEP 060420**					
cis-1,2-Dichloroethene		9.0	1.0	0.51	ug/l	SW846 8260C
Trichloroethene		68.4	1.0	0.53	ug/l	SW846 8260C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OPEN DITCH 001 060420		
Lab Sample ID:	JD8202-1	**Date Sampled:**	06/04/20
Matrix:	AQ - Water	**Date Received:**	06/05/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201795.D	1	06/12/20 10:10	ED	n/a	n/a	V1A8705
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: OPEN DITCH 001 060420
Lab Sample ID: JD8202-1
Matrix: AQ - Water
Method: SW846 8260C
Project: Emersub 15, LLC, Ithaca, NY

Date Sampled: 06/04/20
Date Received: 06/05/20
Percent Solids: n/a

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 060420		
Lab Sample ID:	JD8202-2	**Date Sampled:**	06/04/20
Matrix:	AQ - Water	**Date Received:**	06/05/20
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A201796.D	1	06/12/20 10:34	ED	n/a	n/a	V1A8705
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	9.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: BD24 SEEP 060420
Lab Sample ID: JD8202-2
Matrix: AQ - Water
Method: SW846 8260C
Project: Emersub 15, LLC, Ithaca, NY

Date Sampled: 06/04/20
Date Received: 06/05/20
Percent Solids: n/a

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	68.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Temp 2.7°C IP IR 4

JD8202

CHAIN-OF-CUSTODY RECORD

Page ___ of ___

WSP USA Office Address	7000 E GENESEE ST BLD D 2ND FLOOR FAYETTEVILLE NY
Project Name	EMERSON BIS, LLC
Project Location	ITHACA, NY
Project Number & Task	31401545.001
WSP USA Contact Name	NATE WINSTON
WSP USA Contact E-mail	NATHANIEL.WINSTON @wsp.com
WSP USA Contact Phone	315-420-9973
Sampler(s) Name(s)	NATE WINSTON
Sampler(s) Signature(s)	

Requested Analyses & Preservatives

No. 008874 WSP

Laboratory Name & Location

Laboratory Project Manager: J

Requested Turn-Around-Time: ☐ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs	Sample Comments
1	[illegible]	AQ	—	—	6/4/20	1140	3	X	
2	BD 84 SEEP 060420	AQ	—	—	6/4/20	1200	3	X	

√626

INITIAL ASESSMENT 2.8 626

LABEL VERIFICATION

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	6/4/20	1500				Fedex	215 6627 1031
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
Fedex	06/05/20	1020				1	0453

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

5.1 5

JD8202: Chain of Custody
Page 1 of 3

SGS Sample Receipt Summary

Job Number: JD8202 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 6/5/2020 10:20:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (2.4);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Job Change Order: JD8202

Requested Date:	6/17/2020	**Received Date:**	6/5/2020
Account Name:	WSP Environment & Energy	**Due Date:**	6/19/2020
Project Description:	Emersub 15, LLC, Ithaca, NY	**Deliverable:**	COMMBN
C/O Initiated By:	TAMMY **PM:** TM	**TAT (Days):**	1

==========

Sample #: JD8202-all

Dept:

TAT: 1

Change:
Please no out TIC's and reissue report

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Above Changes Per: Amy Romano **Date/Time:** 6/17/2020 8:51:43 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Page 1 of 1

JD8202: Chain of Custody
Page 3 of 3

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8705-MB	1A201794.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.48	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane [a]	ND	0.50	0.28	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	

Method Blank Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8705-MB	1A201794.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.70	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	0.50	0.18	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.84	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
	m,p-Xylene	ND	1.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.59	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	89%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	99%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) MDL from current instrument.

Blank Spike Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8705-BS	1A201792.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	206	103	42-150
71-43-2	Benzene	50	47.2	94	80-120
74-97-5	Bromochloromethane	50	50.5	101	84-121
75-27-4	Bromodichloromethane	50	48.5	97	83-120
75-25-2	Bromoform	50	54.4	109	76-129
74-83-9	Bromomethane	50	61.3	123	57-138
78-93-3	2-Butanone (MEK)	200	209	105	64-137
75-15-0	Carbon disulfide	50	48.2	96	64-137
56-23-5	Carbon tetrachloride	50	47.6	95	75-135
108-90-7	Chlorobenzene	50	47.4	95	84-117
75-00-3	Chloroethane	50	45.4	91	63-132
67-66-3	Chloroform	50	43.9	88	80-119
74-87-3	Chloromethane	50	52.0	104	46-136
110-82-7	Cyclohexane	50	42.8	86	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	52.8	106	72-127
124-48-1	Dibromochloromethane	50	52.5	105	80-123
106-93-4	1,2-Dibromoethane	50	50.2	100	84-117
95-50-1	1,2-Dichlorobenzene	50	47.1	94	84-119
541-73-1	1,3-Dichlorobenzene	50	47.1	94	81-117
106-46-7	1,4-Dichlorobenzene	50	46.6	93	82-117
75-71-8	Dichlorodifluoromethane	50	41.9	84	36-149
75-34-3	1,1-Dichloroethane	50	49.1	98	79-120
107-06-2	1,2-Dichloroethane	50	43.5	87	78-126
75-35-4	1,1-Dichloroethene	50	50.0	100	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.1	98	80-120
156-60-5	trans-1,2-Dichloroethene	50	48.1	96	76-120
78-87-5	1,2-Dichloropropane	50	48.7	97	82-121
10061-01-5	cis-1,3-Dichloropropene	50	54.6	109	83-120
10061-02-6	trans-1,3-Dichloropropene	50	54.0	108	82-121
100-41-4	Ethylbenzene	50	46.2	92	80-120
76-13-1	Freon 113	50	46.6	93	62-182
591-78-6	2-Hexanone	200	200	100	65-132
98-82-8	Isopropylbenzene	50	46.0	92	83-120
79-20-9	Methyl Acetate	50	56.3	113	67-129
108-87-2	Methylcyclohexane	50	43.4	87	71-134
1634-04-4	Methyl Tert Butyl Ether	50	50.7	101	80-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8705-BS	1A201792.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	200	205	103	71-131
75-09-2	Methylene chloride	50	50.5	101	77-120
100-42-5	Styrene	50	48.0	96	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	48.9	98	76-119
127-18-4	Tetrachloroethene	50	45.1	90	70-131
108-88-3	Toluene	50	45.8	92	80-120
87-61-6	1,2,3-Trichlorobenzene	50	49.2	98	76-134
120-82-1	1,2,4-Trichlorobenzene	50	51.0	102	79-132
71-55-6	1,1,1-Trichloroethane	50	47.1	94	81-128
79-00-5	1,1,2-Trichloroethane	50	47.6	95	83-118
79-01-6	Trichloroethene	50	46.8	94	80-120
75-69-4	Trichlorofluoromethane	50	45.3	91	64-136
75-01-4	Vinyl chloride	50	48.0	96	51-135
	m,p-Xylene	100	91.8	92	80-120
95-47-6	o-Xylene	50	45.7	91	80-120
1330-20-7	Xylene (total)	150	138	92	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	81-124%
2037-26-5	Toluene-D8	97%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD8202-1MS	1A201798.D	1	06/12/20	ED	n/a	n/a	V1A8705
JD8202-1	1A201795.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	JD8202-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	168	84	34-149
71-43-2	Benzene	ND		50	43.9	88	54-136
74-97-5	Bromochloromethane	ND		50	46.0	92	79-124
75-27-4	Bromodichloromethane	ND		50	45.5	91	79-124
75-25-2	Bromoform	ND		50	51.2	102	71-130
74-83-9	Bromomethane	ND		50	58.5	117	53-142
78-93-3	2-Butanone (MEK)	ND		200	192	96	54-142
75-15-0	Carbon disulfide	ND		50	45.6	91	59-145
56-23-5	Carbon tetrachloride	ND		50	47.0	94	70-143
108-90-7	Chlorobenzene	ND		50	44.8	90	78-123
75-00-3	Chloroethane	ND		50	47.6	95	57-141
67-66-3	Chloroform	ND		50	41.4	83	76-123
74-87-3	Chloromethane	ND		50	52.4	105	43-141
110-82-7	Cyclohexane	ND		50	48.5	97	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	51.7	103	66-130
124-48-1	Dibromochloromethane	ND		50	48.6	97	76-125
106-93-4	1,2-Dibromoethane	ND		50	46.0	92	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	45.8	92	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	45.8	92	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	45.6	91	76-122
75-71-8	Dichlorodifluoromethane	ND		50	51.0	102	31-159
75-34-3	1,1-Dichloroethane	ND		50	45.6	91	73-126
107-06-2	1,2-Dichloroethane	ND		50	38.1	76	72-131
75-35-4	1,1-Dichloroethene	ND		50	43.8	88	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	45.0	90	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	45.9	92	70-126
78-87-5	1,2-Dichloropropane	ND		50	45.2	90	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	51.0	102	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	48.7	97	77-123
100-41-4	Ethylbenzene	ND		50	44.7	89	51-140
76-13-1	Freon 113	ND		50	43.7	87	60-192
591-78-6	2-Hexanone	ND		200	189	95	56-139
98-82-8	Isopropylbenzene	ND		50	45.5	91	75-129
79-20-9	Methyl Acetate	ND		50	46.4	93	55-131
108-87-2	Methylcyclohexane	ND		50	46.6	93	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	43.8	88	72-123

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD8202-1MS	1A201798.D	1	06/12/20	ED	n/a	n/a	V1A8705
JD8202-1	1A201795.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	JD8202-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	196	98	66-136
75-09-2	Methylene chloride	ND		50	45.2	90	73-125
100-42-5	Styrene	ND		50	45.8	92	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	47.6	95	71-122
127-18-4	Tetrachloroethene	ND		50	43.3	87	61-139
108-88-3	Toluene	ND		50	43.0	86	60-135
87-61-6	1,2,3-Trichlorobenzene	ND		50	48.7	97	70-138
120-82-1	1,2,4-Trichlorobenzene	ND		50	49.7	99	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	45.4	91	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	43.9	88	78-121
79-01-6	Trichloroethene	ND		50	44.7	89	62-141
75-69-4	Trichlorofluoromethane	ND		50	52.3	105	57-149
75-01-4	Vinyl chloride	ND		50	49.9	100	43-146
	m,p-Xylene	ND		100	88.9	89	50-144
95-47-6	o-Xylene	ND		50	44.2	88	63-134
1330-20-7	Xylene (total)	ND		150	133	89	56-139

CAS No.	Surrogate Recoveries	MS	JD8202-1	Limits
1868-53-7	Dibromofluoromethane	101%	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	90%	81-124%
2037-26-5	Toluene-D8	94%	99%	80-120%
460-00-4	4-Bromofluorobenzene	100%	101%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD8202-2DUP	1A201800.D	1	06/12/20	ED	n/a	n/a	V1A8705
JD8202-2	1A201796.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	JD8202-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
74-97-5	Bromochloromethane	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	9.0		9.4		4	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD8202-2DUP	1A201800.D	1	06/12/20	ED	n/a	n/a	V1A8705
JD8202-2	1A201796.D	1	06/12/20	ED	n/a	n/a	V1A8705

The QC reported here applies to the following samples: **Method:** SW846 8260C

JD8202-1, JD8202-2

CAS No.	Compound	JD8202-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	68.4		71.6		5	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
	m,p-Xylene	ND		ND		nc	20
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD8202-2	Limits
1868-53-7	Dibromofluoromethane	103%	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	92%	90%	81-124%
2037-26-5	Toluene-D8	99%	100%	80-120%
460-00-4	4-Bromofluorobenzene	99%	98%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V1A8665-BFB	**Injection Date:**	05/09/20
Lab File ID:	1A200982.D	**Injection Time:**	16:10
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12388	17.8		Pass
75	30.0 - 60.0% of mass 95	34757	50.1		Pass
95	Base peak, 100% relative abundance	69424	100.0		Pass
96	5.0 - 9.0% of mass 95	4813	6.93		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	63851	92.0		Pass
175	5.0 - 9.0% of mass 174	4842	6.97	(7.58) [a]	Pass
176	95.0 - 101.0% of mass 174	62381	89.9	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	4002	5.76	(6.42) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8665-IC8665	1A200983.D	05/09/20	16:42	00:32	Initial cal 0.2
V1A8665-IC8665	1A200984.D	05/09/20	17:07	00:57	Initial cal 0.5
V1A8665-IC8665	1A200985.D	05/09/20	17:31	01:21	Initial cal 1
V1A8665-IC8665	1A200986.D	05/09/20	17:56	01:46	Initial cal 2
V1A8665-IC8665	1A200987.D	05/09/20	18:21	02:11	Initial cal 4
V1A8665-IC8665	1A200988.D	05/09/20	18:46	02:36	Initial cal 8
V1A8665-IC8665	1A200989.D	05/09/20	19:10	03:00	Initial cal 20
V1A8665-ICC8665	1A200990.D	05/09/20	19:35	03:25	Initial cal 50
V1A8665-IC8665	1A200991.D	05/09/20	20:00	03:50	Initial cal 100
V1A8665-IC8665	1A200992.D	05/09/20	20:25	04:15	Initial cal 200
V1A8665-ICV8665	1A200995.D	05/09/20	21:39	05:29	Initial cal verification 50
V1A8665-ICV8665	1A200996.D	05/09/20	22:03	05:53	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V1A8665-BFB2	**Injection Date:**	05/11/20
Lab File ID:	1A200999.D	**Injection Time:**	12:59
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14148	18.1		Pass
75	30.0 - 60.0% of mass 95	37501	47.9		Pass
95	Base peak, 100% relative abundance	78267	100.0		Pass
96	5.0 - 9.0% of mass 95	5001	6.39		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	70443	90.0		Pass
175	5.0 - 9.0% of mass 174	5507	7.04	(7.82) [a]	Pass
176	95.0 - 101.0% of mass 174	69440	88.7	(98.6) [a]	Pass
177	5.0 - 9.0% of mass 176	4587	5.86	(6.61) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8665-ICV8665	1A201000.D	05/11/20	13:52	00:53	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V1A8705-BFB	**Injection Date:**	06/12/20
Lab File ID:	1A201791.D	**Injection Time:**	08:17
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10505	16.1		Pass
75	30.0 - 60.0% of mass 95	29784	45.5		Pass
95	Base peak, 100% relative abundance	65440	100.0		Pass
96	5.0 - 9.0% of mass 95	4223	6.45		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	60997	93.2		Pass
175	5.0 - 9.0% of mass 174	4696	7.18	(7.70) [a]	Pass
176	95.0 - 101.0% of mass 174	58267	89.0	(95.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3800	5.81	(6.52) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8705-CC8665	1A201791.D	06/12/20	08:17	00:00	Continuing cal 20
V1A8705-BS	1A201792.D	06/12/20	08:51	00:34	Blank Spike
V1A8705-MB	1A201794.D	06/12/20	09:40	01:23	Method Blank
JD8202-1	1A201795.D	06/12/20	10:10	01:53	OPEN DITCH 001 060420
JD8202-2	1A201796.D	06/12/20	10:34	02:17	BD24 SEEP 060420
ZZZZZZ	1A201797.D	06/12/20	10:56	02:39	(unrelated sample)
JD8202-1MS	1A201798.D	06/12/20	11:20	03:03	Matrix Spike
JD8202-2DUP	1A201800.D	06/12/20	12:10	03:53	Duplicate
ZZZZZZ	1A201801.D	06/12/20	12:40	04:23	(unrelated sample)
ZZZZZZ	1A201803.D	06/12/20	13:30	05:13	(unrelated sample)
ZZZZZZ	1A201806.D	06/12/20	14:44	06:27	(unrelated sample)
ZZZZZZ	1A201807.D	06/12/20	15:09	06:52	(unrelated sample)
ZZZZZZ	1A201810.D	06/12/20	16:23	08:06	(unrelated sample)
ZZZZZZ	1A201811.D	06/12/20	16:48	08:31	(unrelated sample)
ZZZZZZ	1A201812.D	06/12/20	17:13	08:56	(unrelated sample)
ZZZZZZ	1A201813.D	06/12/20	17:38	09:21	(unrelated sample)
ZZZZZZ	1A201816.D	06/12/20	18:52	10:35	(unrelated sample)
ZZZZZZ	1A201817.D	06/12/20	19:17	11:00	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD8202
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD8202-1	1A201795.D	99	90	99	101
JD8202-2	1A201796.D	101	90	100	98
JD8202-1MS	1A201798.D	101	88	94	100
JD8202-2DUP	1A201800.D	103	92	99	99
V1A8705-BS	1A201792.D	100	88	97	100
V1A8705-MB	1A201794.D	100	89	100	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/TASK 05 / TASK 01

SGS Job Number: JD13997

Sampling Date: 09/30/20

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 25

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD13997

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 05 / TASK 01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD13997-1	09/30/20	09:55	NW	10/01/20	AQ	Water	BD24 SEEP 093020
JD13997-2	09/30/20	10:10	NW	10/01/20	AQ	Water	OPEN DITCH001 093020

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD13997
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	10/13/2020 3:47:33 P

On 10/01/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD13997 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2B8135

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD13998-1MS, JD13998-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JD13997-1 for Acetone: Associated CCV outside of control limits low.
- JD13997-2 for Acetone: Associated CCV outside of control limits low.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD13997
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 09/30/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD13997-1	**BD24 SEEP 093020**					
cis-1,2-Dichloroethene		0.58 J	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		3.2	1.0	0.53	ug/l	SW846 8260D
JD13997-2	**OPEN DITCH001 093020**					
cis-1,2-Dichloroethene		0.69 J	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		0.78 J	1.0	0.53	ug/l	SW846 8260D

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD24 SEEP 093020		
Lab Sample ID:	JD13997-1	**Date Sampled:**	09/30/20
Matrix:	AQ - Water	**Date Received:**	10/01/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B179101.D	1	10/09/20 17:27	EH	n/a	n/a	V2B8135
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.58	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 093020		
Lab Sample ID:	JD13997-1	**Date Sampled:**	09/30/20
Matrix:	AQ - Water	**Date Received:**	10/01/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	3.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH001 093020		
Lab Sample ID:	JD13997-2	**Date Sampled:**	09/30/20
Matrix:	AQ - Water	**Date Received:**	10/01/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B179102.D	1	10/09/20 17:56	EH	n/a	n/a	V2B8135
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.69	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH001 093020		
Lab Sample ID:	JD13997-2	**Date Sampled:**	09/30/20
Matrix:	AQ - Water	**Date Received:**	10/01/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.78	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

(a) Associated CCV outside of control limits low.

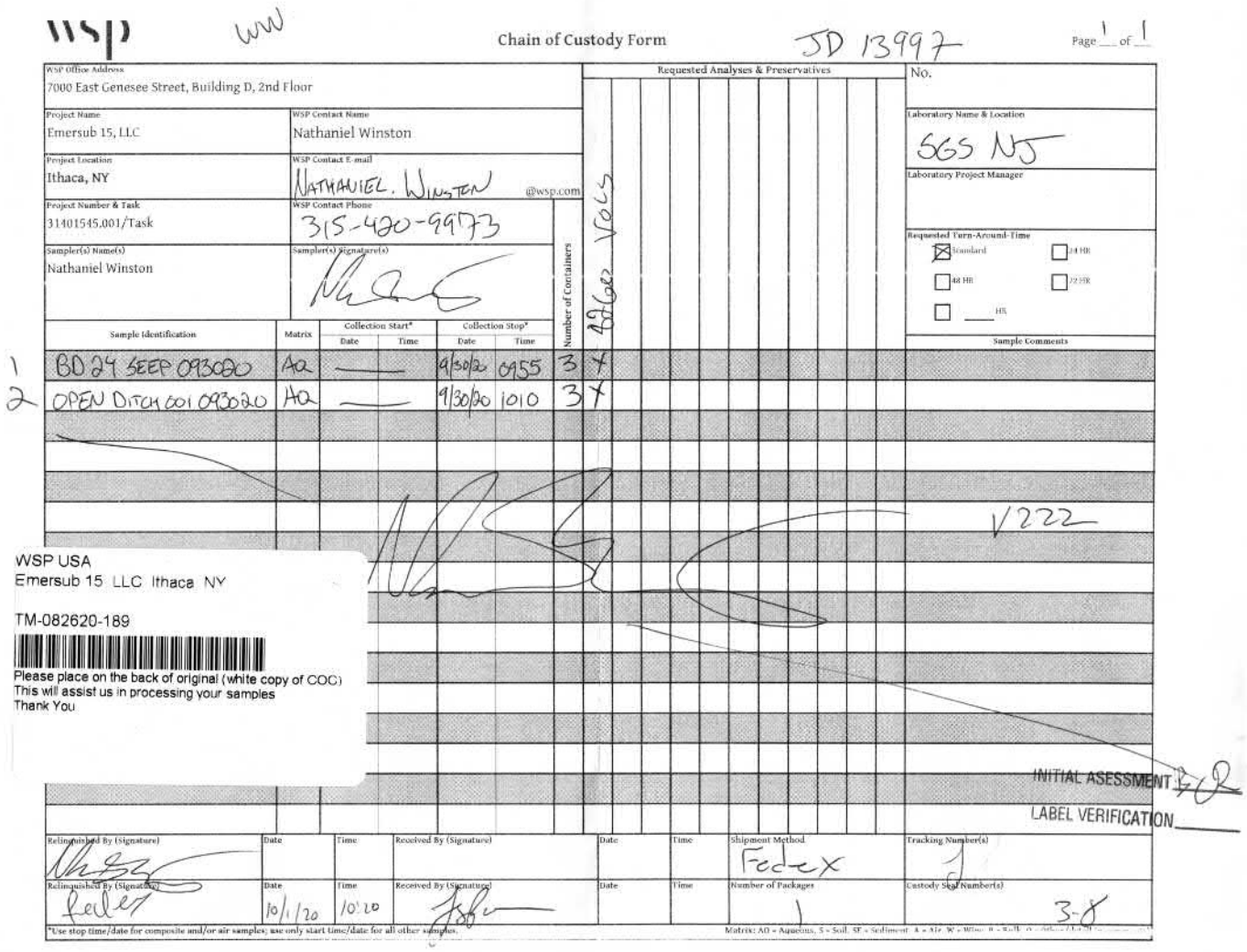
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



wsp

WW

Chain of Custody Form

JD 13997

Page 1 of 1

WSP Office Address: 7000 East Genesee Street, Building D, 2nd Floor

Project Name: Emersub 15, LLC

WSP Contact Name: Nathaniel Winston

Project Location: Ithaca, NY

WSP Contact E-mail: NATHANIEL.WINSTEN@wsp.com

Project Number & Task: 31401545.001/Task

WSP Contact Phone: 315-420-9973

Sampler(s) Name(s): Nathaniel Winston

Sampler(s) Signature(s)

Requested Analyses & Preservatives

No.

Laboratory Name & Location: SGS NJ

Laboratory Project Manager

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	Sample Comments
1	BD 24 SEEP 093020	AQ	—	—	9/30/20	0955	3	
2	OPEN DITCH 001 093020	AQ	—	—	9/30/20	1010	3	

40 Glass Vocs

V222

WSP USA
Emersub 15 LLC Ithaca NY

TM-082620-189

Please place on the back of original (white copy of COC)
This will assist us in processing your samples
Thank You

INITIAL ASESSMENT

LABEL VERIFICATION

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
						FedEx	1
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
Fedex	10/1/20	10:20				1	3-8

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (Specify)

5.1 5

JD13997: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD13997 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 10/1/2020 10:20:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.8);

Cooler Temps (Corrected) °C: Cooler 1: (3.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD13997: Chain of Custody
Page 2 of 2

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8135-MB	2B179089.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8135-MB	2B179089.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	81-124%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8135-BS	2B179087.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	173	87	42-150
71-43-2	Benzene	50	51.1	102	80-120
75-27-4	Bromodichloromethane	50	51.7	103	83-120
75-25-2	Bromoform	50	47.9	96	76-129
74-83-9	Bromomethane	50	56.2	112	57-138
78-93-3	2-Butanone (MEK)	200	183	92	64-137
75-15-0	Carbon disulfide	50	56.3	113	64-137
56-23-5	Carbon tetrachloride	50	53.2	106	75-135
108-90-7	Chlorobenzene	50	50.7	101	84-117
75-00-3	Chloroethane	50	59.3	119	63-132
67-66-3	Chloroform	50	49.0	98	80-119
74-87-3	Chloromethane	50	58.3	117	46-136
110-82-7	Cyclohexane	50	51.3	103	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	50.5	101	72-127
124-48-1	Dibromochloromethane	50	48.6	97	80-123
106-93-4	1,2-Dibromoethane	50	47.4	95	84-117
95-50-1	1,2-Dichlorobenzene	50	51.1	102	84-119
541-73-1	1,3-Dichlorobenzene	50	51.0	102	81-117
106-46-7	1,4-Dichlorobenzene	50	51.5	103	82-117
75-71-8	Dichlorodifluoromethane	50	55.4	111	36-149
75-34-3	1,1-Dichloroethane	50	54.0	108	79-120
107-06-2	1,2-Dichloroethane	50	48.2	96	78-126
75-35-4	1,1-Dichloroethene	50	56.0	112	69-126
156-59-2	cis-1,2-Dichloroethene	50	52.9	106	80-120
156-60-5	trans-1,2-Dichloroethene	50	55.6	111	76-120
78-87-5	1,2-Dichloropropane	50	53.1	106	82-121
10061-01-5	cis-1,3-Dichloropropene	50	51.7	103	83-120
10061-02-6	trans-1,3-Dichloropropene	50	51.4	103	82-121
100-41-4	Ethylbenzene	50	49.4	99	80-120
76-13-1	Freon 113	50	55.2	110	62-182
591-78-6	2-Hexanone	200	177	89	65-132
98-82-8	Isopropylbenzene	50	49.2	98	83-120
79-20-9	Methyl Acetate	50	44.5	89	67-129
108-87-2	Methylcyclohexane	50	52.0	104	71-134
1634-04-4	Methyl Tert Butyl Ether	50	48.4	97	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	185	93	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8135-BS	2B179087.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	54.0	108	77-120
100-42-5	Styrene	50	50.3	101	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	48.2	96	76-119
127-18-4	Tetrachloroethene	50	48.9	98	70-131
108-88-3	Toluene	50	49.1	98	80-120
120-82-1	1,2,4-Trichlorobenzene	50	56.6	113	79-132
71-55-6	1,1,1-Trichloroethane	50	53.4	107	81-128
79-00-5	1,1,2-Trichloroethane	50	47.5	95	83-118
79-01-6	Trichloroethene	50	51.8	104	80-120
75-69-4	Trichlorofluoromethane	50	55.5	111	64-136
75-01-4	Vinyl chloride	50	57.1	114	51-135
1330-20-7	Xylene (total)	150	151	101	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	81-124%
2037-26-5	Toluene-D8	97%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD13998-1MS	2B179097.D	1	10/09/20	EH	n/a	n/a	V2B8135
JD13998-1	2B179094.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	JD13998-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	128	64	34-149
71-43-2	Benzene	ND		50	51.1	102	54-136
75-27-4	Bromodichloromethane	ND		50	49.6	99	79-124
75-25-2	Bromoform	ND		50	43.6	87	71-130
74-83-9	Bromomethane	ND		50	60.9	122	53-142
78-93-3	2-Butanone (MEK)	ND		200	153	77	54-142
75-15-0	Carbon disulfide	ND		50	58.4	117	59-145
56-23-5	Carbon tetrachloride	ND		50	54.4	109	70-143
108-90-7	Chlorobenzene	ND		50	50.3	101	78-123
75-00-3	Chloroethane	ND		50	64.8	130	57-141
67-66-3	Chloroform	ND		50	47.9	96	76-123
74-87-3	Chloromethane	ND		50	62.8	126	43-141
110-82-7	Cyclohexane	ND		50	57.8	116	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	43.5	87	66-130
124-48-1	Dibromochloromethane	ND		50	45.3	91	76-125
106-93-4	1,2-Dibromoethane	ND		50	44.0	88	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	49.1	98	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	49.9	100	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	50.4	101	76-122
75-71-8	Dichlorodifluoromethane	ND		50	61.9	124	31-159
75-34-3	1,1-Dichloroethane	ND		50	53.8	108	73-126
107-06-2	1,2-Dichloroethane	ND		50	45.7	91	72-131
75-35-4	1,1-Dichloroethene	ND		50	57.4	115	63-136
156-59-2	cis-1,2-Dichloroethene	2.2		50	54.8	105	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	56.8	114	70-126
78-87-5	1,2-Dichloropropane	ND		50	51.8	104	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	50.7	101	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	47.9	96	77-123
100-41-4	Ethylbenzene	ND		50	49.4	99	51-140
76-13-1	Freon 113	ND		50	57.9	116	60-192
591-78-6	2-Hexanone	ND		200	147	74	56-139
98-82-8	Isopropylbenzene	ND		50	49.1	98	75-129
79-20-9	Methyl Acetate	ND		50	39.7	79	55-131
108-87-2	Methylcyclohexane	ND		50	54.9	110	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	44.7	89	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	166	83	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD13998-1MS	2B179097.D	1	10/09/20	EH	n/a	n/a	V2B8135
JD13998-1	2B179094.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	JD13998-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	52.9	106	73-125
100-42-5	Styrene	ND		50	49.9	100	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	44.2	88	71-122
127-18-4	Tetrachloroethene	ND		50	50.3	101	61-139
108-88-3	Toluene	ND		50	48.3	97	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	52.8	106	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	54.3	109	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	44.3	89	78-121
79-01-6	Trichloroethene	ND		50	51.8	104	62-141
75-69-4	Trichlorofluoromethane	ND		50	61.5	123	57-149
75-01-4	Vinyl chloride	ND		50	64.4	129	43-146
1330-20-7	Xylene (total)	ND		150	149	99	56-139

CAS No.	Surrogate Recoveries	MS	JD13998-1	Limits
1868-53-7	Dibromofluoromethane	101%	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	93%	99%	81-124%
2037-26-5	Toluene-D8	98%	101%	80-120%
460-00-4	4-Bromofluorobenzene	101%	103%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD13998-2DUP	2B179096.D	1	10/09/20	EH	n/a	n/a	V2B8135
JD13998-2	2B179095.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	JD13998-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD13998-2DUP	2B179096.D	1	10/09/20	EH	n/a	n/a	V2B8135
JD13998-2	2B179095.D	1	10/09/20	EH	n/a	n/a	V2B8135

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD13997-1, JD13997-2

CAS No.	Compound	JD13998-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD13998-2	Limits
1868-53-7	Dibromofluoromethane	104%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	98%	81-124%
2037-26-5	Toluene-D8	103%	102%	80-120%
460-00-4	4-Bromofluorobenzene	103%	103%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2B8113-BFB	**Injection Date:**	09/23/20
Lab File ID:	2B178740.D	**Injection Time:**	17:26
Instrument ID:	GCMS2B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11215	18.4		Pass
75	30.0 - 60.0% of mass 95	28704	47.2		Pass
95	Base peak, 100% relative abundance	60853	100.0		Pass
96	5.0 - 9.0% of mass 95	3927	6.45		Pass
173	Less than 2.0% of mass 174	165	0.27	(0.29) [a]	Pass
174	50.0 - 120.0% of mass 95	56736	93.2		Pass
175	5.0 - 9.0% of mass 174	4274	7.02	(7.53) [a]	Pass
176	95.0 - 101.0% of mass 174	55746	91.6	(98.3) [a]	Pass
177	5.0 - 9.0% of mass 176	3672	6.03	(6.59) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B8113-IC8113	2B178741.D	09/23/20	18:08	00:42	Initial cal 0.2
V2B8113-IC8113	2B178742.D	09/23/20	18:37	01:11	Initial cal 0.5
V2B8113-IC8113	2B178743.D	09/23/20	19:07	01:41	Initial cal 1
V2B8113-IC8113	2B178744.D	09/23/20	19:36	02:10	Initial cal 2
V2B8113-IC8113	2B178745.D	09/23/20	20:05	02:39	Initial cal 4
V2B8113-IC8113	2B178746.D	09/23/20	20:35	03:09	Initial cal 8
V2B8113-IC8113	2B178747.D	09/23/20	21:04	03:38	Initial cal 20
V2B8113-ICC8113	2B178748.D	09/23/20	21:34	04:08	Initial cal 50
V2B8113-IC8113	2B178749.D	09/23/20	22:03	04:37	Initial cal 100
V2B8113-IC8113	2B178750.D	09/23/20	22:32	05:06	Initial cal 200
V2B8113-ICV8113	2B178753.D	09/24/20	00:00	06:34	Initial cal verification 50
V2B8113-ICV8113	2B178754.D	09/24/20	00:29	07:03	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V2B8135-BFB
Lab File ID: 2B179085.D
Instrument ID: GCMS2B
Injection Date: 10/09/20
Injection Time: 09:03

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11076	18.2		Pass
75	30.0 - 60.0% of mass 95	28893	47.5		Pass
95	Base peak, 100% relative abundance	60821	100.0		Pass
96	5.0 - 9.0% of mass 95	3962	6.51		Pass
173	Less than 2.0% of mass 174	400	0.66	(0.69) [a]	Pass
174	50.0 - 120.0% of mass 95	58152	95.6		Pass
175	5.0 - 9.0% of mass 174	4309	7.08	(7.41) [a]	Pass
176	95.0 - 101.0% of mass 174	56333	92.6	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	3642	5.99	(6.47) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B8135-CC8113	2B179085.D	10/09/20	09:03	00:00	Continuing cal 20
V2B8135-BS	2B179087.D	10/09/20	10:19	01:16	Blank Spike
V2B8135-MB	2B179089.D	10/09/20	11:13	02:10	Method Blank
ZZZZZZ	2B179090.D	10/09/20	11:57	02:54	(unrelated sample)
ZZZZZZ	2B179091.D	10/09/20	12:26	03:23	(unrelated sample)
ZZZZZZ	2B179092.D	10/09/20	12:55	03:52	(unrelated sample)
ZZZZZZ	2B179093.D	10/09/20	13:25	04:22	(unrelated sample)
JD13998-1	2B179094.D	10/09/20	13:54	04:51	(used for QC only; not part of job JD13997)
JD13998-2	2B179095.D	10/09/20	14:23	05:20	(used for QC only; not part of job JD13997)
JD13998-2DUP	2B179096.D	10/09/20	15:00	05:57	Duplicate
JD13998-1MS	2B179097.D	10/09/20	15:29	06:26	Matrix Spike
ZZZZZZ	2B179098.D	10/09/20	15:59	06:56	(unrelated sample)
ZZZZZZ	2B179099.D	10/09/20	16:28	07:25	(unrelated sample)
ZZZZZZ	2B179100.D	10/09/20	16:58	07:55	(unrelated sample)
JD13997-1	2B179101.D	10/09/20	17:27	08:24	BD24 SEEP 093020
JD13997-2	2B179102.D	10/09/20	17:56	08:53	OPEN DITCH001 093020
ZZZZZZ	2B179103.D	10/09/20	18:25	09:22	(unrelated sample)
ZZZZZZ	2B179104.D	10/09/20	18:55	09:52	(unrelated sample)
ZZZZZZ	2B179105.D	10/09/20	19:24	10:21	(unrelated sample)
ZZZZZZ	2B179107.D	10/09/20	20:23	11:20	(unrelated sample)
ZZZZZZ	2B179108.D	10/09/20	20:52	11:49	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD13997
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD13997-1	2B179101.D	104	99	103	102
JD13997-2	2B179102.D	105	100	102	103
JD13998-1MS	2B179097.D	101	93	98	101
JD13998-2DUP	2B179096.D	104	97	103	103
V2B8135-BS	2B179087.D	102	94	97	101
V2B8135-MB	2B179089.D	102	97	102	101

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/Task

SGS Job Number: JD15262

Sampling Date: 10/23/20

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 23

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5 6

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD15262

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD15262-1	10/23/20	12:50	NW	10/27/20	AQ	Water	BD24 SEEP 102320
JD15262-2	10/23/20	13:20	NW	10/27/20	AQ	Water	OPEN DITCH001 102320

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD15262
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	10/30/2020 10:11:55 A

On 10/27/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD15262 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V3B7297

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD15232-8MS, JD15232-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,2,4-Trichlorobenzene are outside control limits. High percent recovery and no associated positive reported in the QC batch.
- Matrix Spike Recovery(s) for cis-1,2-Dichloroethene, Trichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Duplicate Recovery(s) for cis-1,2-Dichloroethene, Trichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JD15262-1 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD15262-2 for Carbon disulfide: Associated CCV outside of control limits low.
- JD15262-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD15262-1 for 1,1-Dichloroethene: Associated CCV outside of control limits low.
- JD15262-1 for Carbon disulfide: Associated CCV outside of control limits low.
- JD15262-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD15262-2 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD15262-2 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD15262-2 for 1,1-Dichloroethene: Associated CCV outside of control limits low.
- JD15262-1 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD15262
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 10/23/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD15262-1	**BD24 SEEP 102320**					
cis-1,2-Dichloroethene		2.5	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		14.2	1.0	0.53	ug/l	SW846 8260D
JD15262-2	**OPEN DITCH001 102320**					

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD24 SEEP 102320		
Lab Sample ID:	JD15262-1	**Date Sampled:**	10/23/20
Matrix:	AQ - Water	**Date Received:**	10/27/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B162007.D	1	10/28/20 23:52	BK	n/a	n/a	V3B7297
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 102320		
Lab Sample ID:	JD15262-1	**Date Sampled:**	10/23/20
Matrix:	AQ - Water	**Date Received:**	10/27/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [c]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	14.2	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [b]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	89%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH001 102320		
Lab Sample ID:	JD15262-2	**Date Sampled:**	10/23/20
Matrix:	AQ - Water	**Date Received:**	10/27/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B162008.D	1	10/29/20 00:21	BK	n/a	n/a	V3B7297
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide [a]	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene [a]	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH001 102320		
Lab Sample ID:	JD15262-2	**Date Sampled:**	10/23/20
Matrix:	AQ - Water	**Date Received:**	10/27/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [c]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [b]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	111%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	89%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.
(c) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

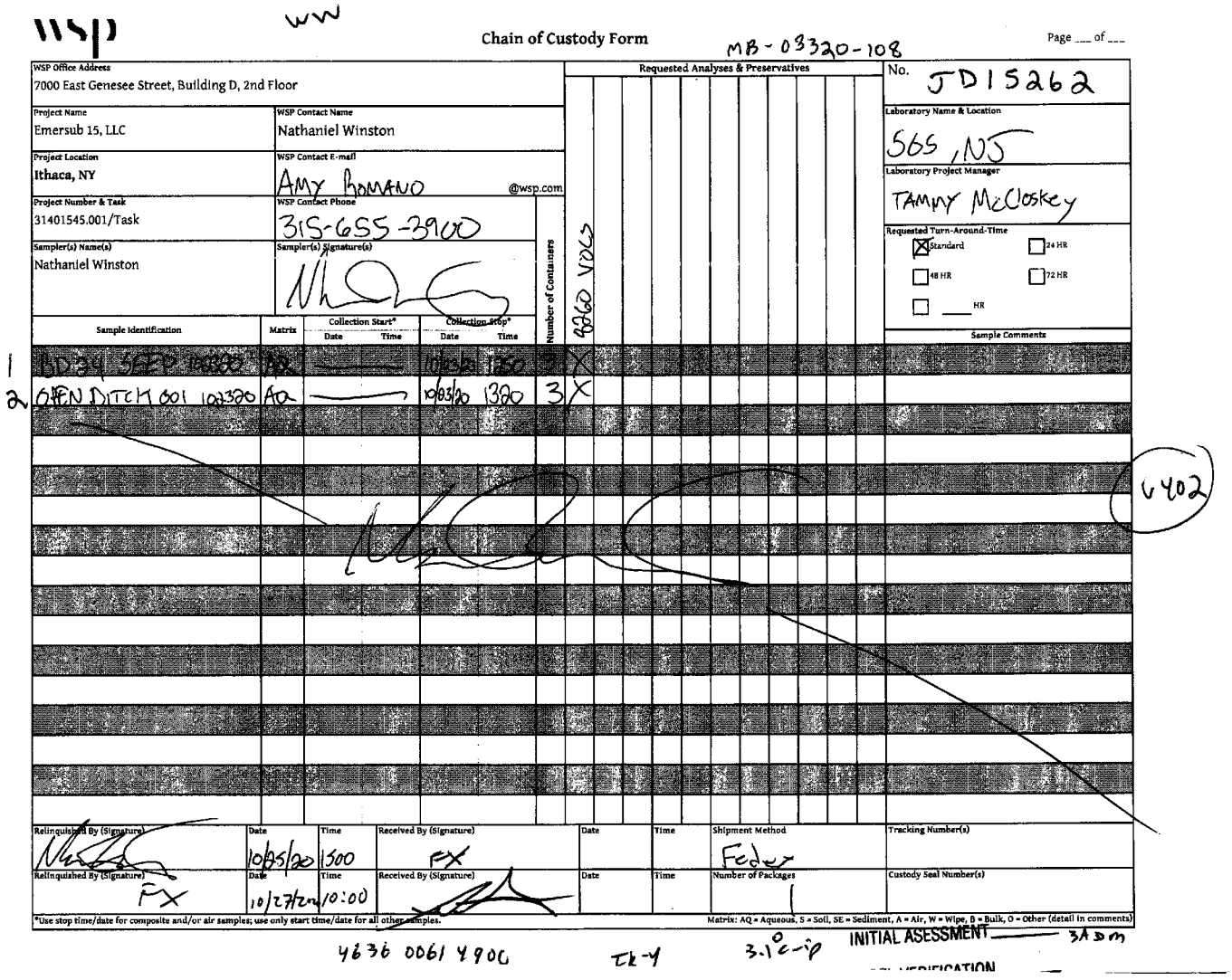
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



Chain of Custody Form

MB-03320-108

Page ___ of ___

WSP Office Address: 7000 East Genesee Street, Building D, 2nd Floor

Project Name: Emersub 15, LLC

WSP Contact Name: Nathaniel Winston

Project Location: Ithaca, NY

WSP Contact E-mail: Amy Romano @wsp.com

Project Number & Task: 31401545.001/Task

WSP Contact Phone: 315-655-3900

Sampler(s) Name(s): Nathaniel Winston

Sampler(s) Signature(s)

Requested Analyses & Preservatives: 8260 VOCs

No. JD15262

Laboratory Name & Location: 565, NJ

Laboratory Project Manager: Tammy McCloskey

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	Sample Comments
1	BD34 SEEP 100320	AQ			10/03/20	1350	3 X	
2	OFFN DITCH 001 100320	AQ			10/03/20	1320	3 X	

6402

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	10/05/20	1500	FX			Fedex	
FX	10/27/20	10:00				Number of Packages	Custody Seal Number(s)

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

4636 0061 4906

TK-4

3.1c-ip

INITIAL ASSESSMENT — DATE 3/3/21

VERIFICATION

JD15262: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD15262 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 10/27/2020 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.1);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD15262: Chain of Custody
Page 2 of 2

MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7297-MB	3B161997.D	1	10/28/20	BK	n/a	n/a	V3B7297

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15262-1, JD15262-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7297-MB	3B161997.D	1	10/28/20	BK	n/a	n/a	V3B7297

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15262-1, JD15262-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	111%	80-120%
17060-07-0	1,2-Dichloroethane-D4	112%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	87%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7297-BS	3B161995.D	1	10/28/20	BK	n/a	n/a	V3B7297

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15262-1, JD15262-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	223	112	42-150
71-43-2	Benzene	50	48.2	96	80-120
75-27-4	Bromodichloromethane	50	56.0	112	83-120
75-25-2	Bromoform	50	58.2	116	76-129
74-83-9	Bromomethane	50	54.3	109	57-138
78-93-3	2-Butanone (MEK)	200	236	118	64-137
75-15-0	Carbon disulfide	50	38.3	77	64-137
56-23-5	Carbon tetrachloride	50	59.3	119	75-135
108-90-7	Chlorobenzene	50	53.1	106	84-117
75-00-3	Chloroethane	50	55.2	110	63-132
67-66-3	Chloroform	50	52.5	105	80-119
74-87-3	Chloromethane	50	58.8	118	46-136
110-82-7	Cyclohexane	50	59.1	118	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	60.5	121	72-127
124-48-1	Dibromochloromethane	50	54.8	110	80-123
106-93-4	1,2-Dibromoethane	50	58.1	116	84-117
95-50-1	1,2-Dichlorobenzene	50	58.2	116	84-119
541-73-1	1,3-Dichlorobenzene	50	56.6	113	81-117
106-46-7	1,4-Dichlorobenzene	50	52.9	106	82-117
75-71-8	Dichlorodifluoromethane	50	67.2	134	36-149
75-34-3	1,1-Dichloroethane	50	47.7	95	79-120
107-06-2	1,2-Dichloroethane	50	54.1	108	78-126
75-35-4	1,1-Dichloroethene	50	41.3	83	69-126
156-59-2	cis-1,2-Dichloroethene	50	49.2	98	80-120
156-60-5	trans-1,2-Dichloroethene	50	45.6	91	76-120
78-87-5	1,2-Dichloropropane	50	52.8	106	82-121
10061-01-5	cis-1,3-Dichloropropene	50	55.0	110	83-120
10061-02-6	trans-1,3-Dichloropropene	50	57.5	115	82-121
100-41-4	Ethylbenzene	50	51.0	102	80-120
76-13-1	Freon 113	50	53.5	107	62-182
591-78-6	2-Hexanone	200	227	114	65-132
98-82-8	Isopropylbenzene	50	55.4	111	83-120
79-20-9	Methyl Acetate	50	48.2	96	67-129
108-87-2	Methylcyclohexane	50	58.9	118	71-134
1634-04-4	Methyl Tert Butyl Ether	50	50.0	100	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	232	116	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7297-BS	3B161995.D	1	10/28/20	BK	n/a	n/a	V3B7297

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15262-1, JD15262-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	44.5	89	77-120
100-42-5	Styrene	50	54.5	109	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	59.0	118	76-119
127-18-4	Tetrachloroethene	50	56.3	113	70-131
108-88-3	Toluene	50	50.7	101	80-120
120-82-1	1,2,4-Trichlorobenzene	50	70.6	141* [a]	79-132
71-55-6	1,1,1-Trichloroethane	50	55.8	112	81-128
79-00-5	1,1,2-Trichloroethane	50	55.7	111	83-118
79-01-6	Trichloroethene	50	54.4	109	80-120
75-69-4	Trichlorofluoromethane	50	67.4	135	64-136
75-01-4	Vinyl chloride	50	59.5	119	51-135
1330-20-7	Xylene (total)	150	163	109	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	81-124%
2037-26-5	Toluene-D8	99%	80-120%
460-00-4	4-Bromofluorobenzene	96%	80-120%

(a) High percent recovery and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15232-8MS	3B162003.D	10	10/28/20	BK	n/a	n/a	V3B7297
JD15232-8MSD	3B162004.D	10	10/28/20	BK	n/a	n/a	V3B7297
JD15232-8 [a]	3B162001.D	10	10/28/20	BK	n/a	n/a	V3B7297

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15262-1, JD15262-2

CAS No.	Compound	JD15232-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		2000	1630	82	2000	1590	80	2	34-149/17
71-43-2	Benzene	ND		500	461	92	500	456	91	1	54-136/10
75-27-4	Bromodichloromethane	ND		500	521	104	500	510	102	2	79-124/11
75-25-2	Bromoform	ND		500	535	107	500	536	107	0	71-130/11
74-83-9	Bromomethane	ND		500	510	102	500	490	98	4	53-142/14
78-93-3	2-Butanone (MEK)	ND		2000	2080	104	2000	2040	102	2	54-142/15
75-15-0	Carbon disulfide	ND		500	380	76	500	367	73	3	59-145/17
56-23-5	Carbon tetrachloride	ND		500	573	115	500	546	109	5	70-143/12
108-90-7	Chlorobenzene	ND		500	509	102	500	508	102	0	78-123/10
75-00-3	Chloroethane	ND		500	533	107	500	502	100	6	57-141/14
67-66-3	Chloroform	ND		500	494	99	500	485	97	2	76-123/11
74-87-3	Chloromethane	ND		500	549	110	500	538	108	2	43-141/16
110-82-7	Cyclohexane	ND		500	570	114	500	549	110	4	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	ND		500	580	116	500	567	113	2	66-130/13
124-48-1	Dibromochloromethane	ND		500	510	102	500	510	102	0	76-125/11
106-93-4	1,2-Dibromoethane	ND		500	560	112	500	547	109	2	78-119/11
95-50-1	1,2-Dichlorobenzene	ND		500	549	110	500	551	110	0	77-123/11
541-73-1	1,3-Dichlorobenzene	ND		500	535	107	500	539	108	1	76-122/11
106-46-7	1,4-Dichlorobenzene	ND		500	497	99	500	500	100	1	76-122/11
75-71-8	Dichlorodifluoromethane	ND		500	645	129	500	628	126	3	31-159/16
75-34-3	1,1-Dichloroethane	ND		500	454	91	500	442	88	3	73-126/11
107-06-2	1,2-Dichloroethane	ND		500	498	100	500	490	98	2	72-131/11
75-35-4	1,1-Dichloroethene	13.5		500	421	82	500	418	81	1	63-136/14
156-59-2	cis-1,2-Dichloroethene	1830		500	2030	40* [b]	500	1960	26* [b]	4	60-136/11
156-60-5	trans-1,2-Dichloroethene	13.4		500	454	88	500	442	86	3	70-126/11
78-87-5	1,2-Dichloropropane	ND		500	492	98	500	479	96	3	78-124/10
10061-01-5	cis-1,3-Dichloropropene	ND		500	515	103	500	517	103	0	79-123/11
10061-02-6	trans-1,3-Dichloropropene	ND		500	542	108	500	547	109	1	77-123/11
100-41-4	Ethylbenzene	ND		500	504	101	500	497	99	1	51-140/20
76-13-1	Freon 113	ND		500	532	106	500	508	102	5	60-192/14
591-78-6	2-Hexanone	ND		2000	2130	107	2000	2110	106	1	56-139/14
98-82-8	Isopropylbenzene	ND		500	550	110	500	540	108	2	75-129/11
79-20-9	Methyl Acetate	ND		500	425	85	500	420	84	1	55-131/15
108-87-2	Methylcyclohexane	ND		500	583	117	500	561	112	4	57-155/13
1634-04-4	Methyl Tert Butyl Ether	ND		500	457	91	500	453	91	1	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		2000	2110	106	2000	2100	105	0	66-136/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15232-8MS	3B162003.D	10	10/28/20	BK	n/a	n/a	V3B7297
JD15232-8MSD	3B162004.D	10	10/28/20	BK	n/a	n/a	V3B7297
JD15232-8 [a]	3B162001.D	10	10/28/20	BK	n/a	n/a	V3B7297

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15262-1, JD15262-2

CAS No.	Compound	JD15232-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		500	425	85	500	409	82	4	73-125/13
100-42-5	Styrene	ND		500	522	104	500	517	103	1	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	531	106	500	539	108	1	71-122/11
127-18-4	Tetrachloroethene	13.4		500	566	111	500	560	109	1	61-139/11
108-88-3	Toluene	ND		500	489	98	500	498	100	2	60-135/10
120-82-1	1,2,4-Trichlorobenzene	ND		500	662	132	500	664	133	0	72-137/13
71-55-6	1,1,1-Trichloroethane	ND		500	531	106	500	511	102	4	74-138/12
79-00-5	1,1,2-Trichloroethane	ND		500	527	105	500	511	102	3	78-121/11
79-01-6	Trichloroethene	1450		500	1730	56* [b]	500	1680	46* [b]	3	62-141/10
75-69-4	Trichlorofluoromethane	ND		500	659	132	500	628	126	5	57-149/14
75-01-4	Vinyl chloride	ND		500	577	115	500	566	113	2	43-146/15
1330-20-7	Xylene (total)	ND		1500	1600	107	1500	1590	106	1	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JD15232-8	Limits
1868-53-7	Dibromofluoromethane	105%	101%	112%	80-120%
17060-07-0	1,2-Dichloroethane-D4	103%	100%	114%	81-124%
2037-26-5	Toluene-D8	100%	100%	100%	80-120%
460-00-4	4-Bromofluorobenzene	96%	98%	88%	80-120%

(a) Preliminary Data.
(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V3B7248-BFB	**Injection Date:**	08/25/20
Lab File ID:	3B160909.D	**Injection Time:**	19:04
Instrument ID:	GCMS3B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17724	19.3		Pass
75	30.0 - 60.0% of mass 95	43944	47.8		Pass
95	Base peak, 100% relative abundance	91872	100.0		Pass
96	5.0 - 9.0% of mass 95	5919	6.44		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	74325	80.9		Pass
175	5.0 - 9.0% of mass 174	5412	5.89	(7.28) [a]	Pass
176	95.0 - 101.0% of mass 174	72240	78.6	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	4655	5.07	(6.44) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B7248-IC7248	3B160910.D	08/25/20	19:44	00:40	Initial cal 0.2
V3B7248-IC7248	3B160911.D	08/25/20	20:15	01:11	Initial cal 0.5
V3B7248-IC7248	3B160912.D	08/25/20	20:46	01:42	Initial cal 1
V3B7248-IC7248	3B160913.D	08/25/20	21:17	02:13	Initial cal 2
V3B7248-IC7248	3B160914.D	08/25/20	21:47	02:43	Initial cal 4
V3B7248-IC7248	3B160915.D	08/25/20	22:18	03:14	Initial cal 8
V3B7248-IC7248	3B160916.D	08/25/20	22:48	03:44	Initial cal 20
V3B7248-ICC7248	3B160917.D	08/25/20	23:19	04:15	Initial cal 50
V3B7248-IC7248	3B160918.D	08/25/20	23:49	04:45	Initial cal 100
V3B7248-IC7248	3B160919.D	08/26/20	00:19	05:15	Initial cal 200
V3B7248-ICV7248	3B160922.D	08/26/20	01:48	06:44	Initial cal verification 50
V3B7248-ICV7248	3B160923.D	08/26/20	02:18	07:14	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V3B7297-BFB	**Injection Date:**	10/28/20
Lab File ID:	3B161993.D	**Injection Time:**	16:35
Instrument ID:	GCMS3B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	22675	19.6		Pass
75	30.0 - 60.0% of mass 95	57339	49.5		Pass
95	Base peak, 100% relative abundance	115859	100.0		Pass
96	5.0 - 9.0% of mass 95	8118	7.01		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	94101	81.2		Pass
175	5.0 - 9.0% of mass 174	7027	6.07	(7.47) [a]	Pass
176	95.0 - 101.0% of mass 174	92520	79.9	(98.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6189	5.34	(6.69) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B7297-CC7248	3B161993.D	10/28/20	16:35	00:00	Continuing cal 50
V3B7297-BS	3B161995.D	10/28/20	17:49	01:14	Blank Spike
V3B7297-MB	3B161997.D	10/28/20	18:48	02:13	Method Blank
ZZZZZZ	3B161998.D	10/28/20	19:24	02:49	(unrelated sample)
ZZZZZZ	3B161999.D	10/28/20	19:54	03:19	(unrelated sample)
ZZZZZZ	3B162000.D	10/28/20	20:23	03:48	(unrelated sample)
JD15232-8	3B162001.D	10/28/20	20:54	04:19	(used for QC only; not part of job JD15262)
JD15232-8MS	3B162003.D	10/28/20	21:53	05:18	Matrix Spike
JD15232-8MSD	3B162004.D	10/28/20	22:23	05:48	Matrix Spike Duplicate
ZZZZZZ	3B162006.D	10/28/20	23:22	06:47	(unrelated sample)
JD15262-1	3B162007.D	10/28/20	23:52	07:17	BD24 SEEP 102320
JD15262-2	3B162008.D	10/29/20	00:21	07:46	OPEN DITCH001 102320
ZZZZZZ	3B162009.D	10/29/20	00:51	08:16	(unrelated sample)
ZZZZZZ	3B162010.D	10/29/20	01:20	08:45	(unrelated sample)
ZZZZZZ	3B162011.D	10/29/20	01:50	09:15	(unrelated sample)
ZZZZZZ	3B162012.D	10/29/20	02:19	09:44	(unrelated sample)
ZZZZZZ	3B162013.D	10/29/20	02:48	10:13	(unrelated sample)
ZZZZZZ	3B162014.D	10/29/20	03:18	10:43	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD15262
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD15262-1	3B162007.D	107	110	98	89
JD15262-2	3B162008.D	107	111	99	89
JD15232-8MS	3B162003.D	105	103	100	96
JD15232-8MSD	3B162004.D	101	100	100	98
V3B7297-BS	3B161995.D	105	105	99	96
V3B7297-MB	3B161997.D	111	112	100	87

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/Task

SGS Job Number: JD15757

Sampling Date: 11/04/20

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 35

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD15757

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD15757-1	11/04/20	13:50	NW	11/05/20	AQ	Water	BD24 SEER 110420
JD15757-2	11/04/20	14:10	NW	11/05/20	AQ	Water	OPEN DITCH 001 110420

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD15757
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	11/12/2020 12:53:07 P

On 11/05/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD15757 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2B8162

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD15901-6MS, JD15901-7DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JD15757-1 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** VL9702

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD15756-1MS, JD15756-3DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD15757
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 11/04/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD15757-1	**BD24 SEER 110420**					
cis-1,2-Dichloroethene		4.1	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		20.8	1.0	0.53	ug/l	SW846 8260D
JD15757-2	**OPEN DITCH 001 110420**					

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD24 SEER 110420		
Lab Sample ID:	JD15757-1	**Date Sampled:**	11/04/20
Matrix:	AQ - Water	**Date Received:**	11/05/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2B179694.D	1	11/11/20 11:28	EH	n/a	n/a	V2B8162
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.1	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEER 110420		
Lab Sample ID:	JD15757-1	**Date Sampled:**	11/04/20
Matrix:	AQ - Water	**Date Received:**	11/05/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	20.8	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 110420		
Lab Sample ID:	JD15757-2	**Date Sampled:**	11/04/20
Matrix:	AQ - Water	**Date Received:**	11/05/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L325851.D	1	11/09/20 14:45	EH	n/a	n/a	VL9702
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 110420		
Lab Sample ID:	JD15757-2	**Date Sampled:**	11/04/20
Matrix:	AQ - Water	**Date Received:**	11/05/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

WW

wsp

Chain of Custody Form

Bottle Order: TM-03920-73

Page 1 of 1

WSP Office Address: 7000 East Genesee Street, Building D, 2nd Floor	Requested Analyses & Preservatives
Project Name: Emersub 15, LLC	WSP Contact Name: Nathaniel Winston
Project Location: Ithaca, NY	WSP Contact E-mail: AMY.ROMANO@wsp.com
Project Number & Task: 31401545.001/Task	WSP Contact Phone: 315-655-3900
Sampler(s) Name(s): Nathaniel Winston	Sampler(s) Signature(s):

No. JD 15757

Laboratory Name & Location: SGS NJ

Laboratory Project Manager: TAMMY MCCOSKEY

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs	Sample Comments
1	BD243EEB 110420	AQ	—	—	11/4/20	1350	3	X	
2	GEN DITCH 001 110420	AQ	—	—	11/4/20	1410	3	X	V475

INITIAL ASSESSMENT MX 20

LABEL VERIFICATION

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	11/4/20	1530		11/5/2020	10:15	Fed-Ex	3985 6704 5967
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
	11/5/20	10:15					

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Ice-4 4.5° CIF

5.1 5

JD15757: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD15757 **Client:** WSP ENVIRONMENT & ENERGY **Project:** FORMER HUCK MANUFACTURING, KINGSTO

Date / Time Received: 11/5/2020 10:15:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.5);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL9702-MB	L325844.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL9702-MB	L325844.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	81-124%
2037-26-5	Toluene-D8	103%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8162-MB	2B179693.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8162-MB	2B179693.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	80-120%
17060-07-0	1,2-Dichloroethane-D4	102%	81-124%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	98%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8162-BS	2B179691.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	239	120	42-150
71-43-2	Benzene	50	52.3	105	80-120
75-27-4	Bromodichloromethane	50	52.1	104	83-120
75-25-2	Bromoform	50	55.1	110	76-129
74-83-9	Bromomethane	50	54.1	108	57-138
78-93-3	2-Butanone (MEK)	200	260	130	64-137
75-15-0	Carbon disulfide	50	58.4	117	64-137
56-23-5	Carbon tetrachloride	50	51.7	103	75-135
108-90-7	Chlorobenzene	50	50.7	101	84-117
75-00-3	Chloroethane	50	58.3	117	63-132
67-66-3	Chloroform	50	49.8	100	80-119
74-87-3	Chloromethane	50	58.8	118	46-136
110-82-7	Cyclohexane	50	56.0	112	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	59.0	118	72-127
124-48-1	Dibromochloromethane	50	51.9	104	80-123
106-93-4	1,2-Dibromoethane	50	55.5	111	84-117
95-50-1	1,2-Dichlorobenzene	50	52.6	105	84-119
541-73-1	1,3-Dichlorobenzene	50	51.2	102	81-117
106-46-7	1,4-Dichlorobenzene	50	52.1	104	82-117
75-71-8	Dichlorodifluoromethane	50	56.4	113	36-149
75-34-3	1,1-Dichloroethane	50	55.4	111	79-120
107-06-2	1,2-Dichloroethane	50	48.9	98	78-126
75-35-4	1,1-Dichloroethene	50	57.5	115	69-126
156-59-2	cis-1,2-Dichloroethene	50	54.8	110	80-120
156-60-5	trans-1,2-Dichloroethene	50	57.7	115	76-120
78-87-5	1,2-Dichloropropane	50	54.6	109	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.2	106	83-120
10061-02-6	trans-1,3-Dichloropropene	50	54.7	109	82-121
100-41-4	Ethylbenzene	50	49.2	98	80-120
76-13-1	Freon 113	50	54.7	109	62-182
591-78-6	2-Hexanone	200	237	119	65-132
98-82-8	Isopropylbenzene	50	49.6	99	83-120
79-20-9	Methyl Acetate	50	56.1	112	67-129
108-87-2	Methylcyclohexane	50	53.1	106	71-134
1634-04-4	Methyl Tert Butyl Ether	50	56.0	112	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	238	119	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2B8162-BS	2B179691.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	57.5	115	77-120
100-42-5	Styrene	50	50.8	102	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	56.7	113	76-119
127-18-4	Tetrachloroethene	50	48.4	97	70-131
108-88-3	Toluene	50	48.8	98	80-120
120-82-1	1,2,4-Trichlorobenzene	50	64.3	129	79-132
71-55-6	1,1,1-Trichloroethane	50	52.8	106	81-128
79-00-5	1,1,2-Trichloroethane	50	52.2	104	83-118
79-01-6	Trichloroethene	50	52.7	105	80-120
75-69-4	Trichlorofluoromethane	50	53.7	107	64-136
75-01-4	Vinyl chloride	50	57.8	116	51-135
1330-20-7	Xylene (total)	150	151	101	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	81-124%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	99%	80-120%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL9702-BS	L325841.D	1	11/09/20	EH	n/a	n/a	VL9702
VL9702-BSD	L325842.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	200	187	94	187	94	0	42-150/22
71-43-2	Benzene	50	49.4	99	50.8	102	3	80-120/20
75-27-4	Bromodichloromethane	50	54.5	109	55.5	111	2	83-120/20
75-25-2	Bromoform	50	59.3	119	60.7	121	2	76-129/20
74-83-9	Bromomethane	50	45.6	91	54.3	109	17	57-138/20
78-93-3	2-Butanone (MEK)	200	219	110	214	107	2	64-137/20
75-15-0	Carbon disulfide	50	48.0	96	50.3	101	5	64-137/20
56-23-5	Carbon tetrachloride	50	54.5	109	57.9	116	6	75-135/20
108-90-7	Chlorobenzene	50	50.1	100	51.0	102	2	84-117/20
75-00-3	Chloroethane	50	49.8	100	49.8	100	0	63-132/20
67-66-3	Chloroform	50	49.8	100	51.0	102	2	80-119/20
74-87-3	Chloromethane	50	49.2	98	50.3	101	2	46-136/20
110-82-7	Cyclohexane	50	49.3	99	51.1	102	4	64-137/20
96-12-8	1,2-Dibromo-3-chloropropane	50	58.3	117	61.0	122	5	72-127/20
124-48-1	Dibromochloromethane	50	52.5	105	54.4	109	4	80-123/20
106-93-4	1,2-Dibromoethane	50	51.0	102	50.5	101	1	84-117/20
95-50-1	1,2-Dichlorobenzene	50	51.3	103	52.4	105	2	84-119/20
541-73-1	1,3-Dichlorobenzene	50	51.1	102	53.0	106	4	81-117/20
106-46-7	1,4-Dichlorobenzene	50	47.7	95	49.4	99	4	82-117/20
75-71-8	Dichlorodifluoromethane	50	49.9	100	53.3	107	7	36-149/20
75-34-3	1,1-Dichloroethane	50	51.4	103	52.4	105	2	79-120/20
107-06-2	1,2-Dichloroethane	50	48.7	97	48.5	97	0	78-126/20
75-35-4	1,1-Dichloroethene	50	50.3	101	53.5	107	6	69-126/20
156-59-2	cis-1,2-Dichloroethene	50	50.6	101	52.5	105	4	80-120/20
156-60-5	trans-1,2-Dichloroethene	50	51.1	102	53.9	108	5	76-120/20
78-87-5	1,2-Dichloropropane	50	50.0	100	51.3	103	3	82-121/20
10061-01-5	cis-1,3-Dichloropropene	50	51.8	104	52.5	105	1	83-120/20
10061-02-6	trans-1,3-Dichloropropene	50	52.0	104	52.9	106	2	82-121/20
100-41-4	Ethylbenzene	50	48.2	96	49.7	99	3	80-120/20
76-13-1	Freon 113	50	49.4	99	52.8	106	7	62-182/20
591-78-6	2-Hexanone	200	196	98	197	99	1	65-132/20
98-82-8	Isopropylbenzene	50	51.3	103	52.5	105	2	83-120/20
79-20-9	Methyl Acetate	50	52.5	105	55.1	110	5	67-129/20
108-87-2	Methylcyclohexane	50	53.8	108	56.1	112	4	71-134/20
1634-04-4	Methyl Tert Butyl Ether	50	53.0	106	52.7	105	1	80-119/20
108-10-1	4-Methyl-2-pentanone(MIBK)	200	216	108	213	107	1	71-131/20

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL9702-BS	L325841.D	1	11/09/20	EH	n/a	n/a	VL9702
VL9702-BSD	L325842.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	50	49.1	98	50.1	100	2	77-120/20
100-42-5	Styrene	50	50.4	101	51.0	102	1	82-122/20
79-34-5	1,1,2,2-Tetrachloroethane	50	51.3	103	53.6	107	4	76-119/20
127-18-4	Tetrachloroethene	50	48.0	96	49.9	100	4	70-131/20
108-88-3	Toluene	50	47.4	95	49.0	98	3	80-120/20
120-82-1	1,2,4-Trichlorobenzene	50	57.8	116	60.4	121	4	79-132/20
71-55-6	1,1,1-Trichloroethane	50	51.6	103	54.6	109	6	81-128/20
79-00-5	1,1,2-Trichloroethane	50	50.2	100	50.5	101	1	83-118/20
79-01-6	Trichloroethene	50	48.8	98	50.2	100	3	80-120/20
75-69-4	Trichlorofluoromethane	50	48.0	96	51.1	102	6	64-136/20
75-01-4	Vinyl chloride	50	49.8	100	51.6	103	4	51-135/20
1330-20-7	Xylene (total)	150	148	99	152	101	3	80-120/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	94%	81-124%
2037-26-5	Toluene-D8	95%	94%	80-120%
460-00-4	4-Bromofluorobenzene	101%	101%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15756-1MS	L325857.D	1	11/09/20	EH	n/a	n/a	VL9702
JD15756-1 [a]	L325852.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	JD15756-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	158	79	34-149
71-43-2	Benzene	7.3		50	54.4	94	54-136
75-27-4	Bromodichloromethane	ND		50	50.2	100	79-124
75-25-2	Bromoform	ND		50	52.7	105	71-130
74-83-9	Bromomethane	ND		50	52.0	104	53-142
78-93-3	2-Butanone (MEK)	ND		200	207	104	54-142
75-15-0	Carbon disulfide	ND		50	50.6	101	59-145
56-23-5	Carbon tetrachloride	ND		50	60.2	120	70-143
108-90-7	Chlorobenzene	ND		50	46.8	94	78-123
75-00-3	Chloroethane	ND		50	61.4	123	57-141
67-66-3	Chloroform	ND		50	51.5	103	76-123
74-87-3	Chloromethane	ND		50	58.9	118	43-141
110-82-7	Cyclohexane	6.7		50	69.9	126	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	53.3	107	66-130
124-48-1	Dibromochloromethane	ND		50	46.0	92	76-125
106-93-4	1,2-Dibromoethane	ND		50	46.0	92	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	47.6	95	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	48.2	96	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	44.5	89	76-122
75-71-8	Dichlorodifluoromethane	ND		50	63.4	127	31-159
75-34-3	1,1-Dichloroethane	ND		50	53.8	108	73-126
107-06-2	1,2-Dichloroethane	ND		50	45.0	90	72-131
75-35-4	1,1-Dichloroethene	ND		50	54.7	109	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	51.5	103	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	53.5	107	70-126
78-87-5	1,2-Dichloropropane	ND		50	47.4	95	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	49.2	98	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	46.7	93	77-123
100-41-4	Ethylbenzene	2.7		50	48.8	92	51-140
76-13-1	Freon 113	ND		50	58.2	116	60-192
591-78-6	2-Hexanone	ND		200	182	91	56-139
98-82-8	Isopropylbenzene	1.2		50	51.0	100	75-129
79-20-9	Methyl Acetate	ND		50	54.3	109	55-131
108-87-2	Methylcyclohexane	3.0	J	50	61.6	117	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.8	104	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	202	101	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15756-1MS	L325857.D	1	11/09/20	EH	n/a	n/a	VL9702
JD15756-1 [a]	L325852.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	JD15756-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	49.9	100	73-125
100-42-5	Styrene	ND		50	47.4	95	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	47.7	95	71-122
127-18-4	Tetrachloroethene	ND		50	47.1	94	61-139
108-88-3	Toluene	1.5		50	46.5	90	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	54.9	110	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	55.6	111	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	44.3	89	78-121
79-01-6	Trichloroethene	ND		50	46.8	94	62-141
75-69-4	Trichlorofluoromethane	ND		50	62.6	125	57-149
75-01-4	Vinyl chloride	ND		50	64.6	129	43-146
1330-20-7	Xylene (total)	4.8		150	146	94	56-139

CAS No.	Surrogate Recoveries	MS	JD15756-1	Limits
1868-53-7	Dibromofluoromethane	116%	114%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	103%	81-124%
2037-26-5	Toluene-D8	94%	101%	80-120%
460-00-4	4-Bromofluorobenzene	102%	104%	80-120%

(a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15901-6MS	2B179703.D	1	11/11/20	EH	n/a	n/a	V2B8162
JD15901-6	2B179700.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	JD15901-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	156	78	34-149
71-43-2	Benzene	ND		50	53.6	107	54-136
75-27-4	Bromodichloromethane	ND		50	52.3	105	79-124
75-25-2	Bromoform	ND		50	49.8	100	71-130
74-83-9	Bromomethane	ND		50	61.4	123	53-142
78-93-3	2-Butanone (MEK)	ND		200	203	102	54-142
75-15-0	Carbon disulfide	ND		50	61.8	124	59-145
56-23-5	Carbon tetrachloride	ND		50	54.2	108	70-143
108-90-7	Chlorobenzene	ND		50	51.6	103	78-123
75-00-3	Chloroethane	ND		50	65.8	132	57-141
67-66-3	Chloroform	ND		50	50.2	100	76-123
74-87-3	Chloromethane	ND		50	65.1	130	43-141
110-82-7	Cyclohexane	ND		50	63.3	127	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	57.0	114	66-130
124-48-1	Dibromochloromethane	ND		50	50.1	100	76-125
106-93-4	1,2-Dibromoethane	ND		50	52.4	105	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	51.5	103	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	51.7	103	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	52.4	105	76-122
75-71-8	Dichlorodifluoromethane	ND		50	64.2	128	31-159
75-34-3	1,1-Dichloroethane	ND		50	57.1	114	73-126
107-06-2	1,2-Dichloroethane	ND		50	47.7	95	72-131
75-35-4	1,1-Dichloroethene	ND		50	60.1	120	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	56.6	113	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	60.2	120	70-126
78-87-5	1,2-Dichloropropane	ND		50	55.3	111	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	54.7	109	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	52.8	106	77-123
100-41-4	Ethylbenzene	ND		50	50.6	101	51-140
76-13-1	Freon 113	ND		50	58.4	117	60-192
591-78-6	2-Hexanone	ND		200	194	97	56-139
98-82-8	Isopropylbenzene	ND		50	50.1	100	75-129
79-20-9	Methyl Acetate	ND		50	47.7	95	55-131
108-87-2	Methylcyclohexane	ND		50	56.2	112	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.6	103	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	216	108	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15901-6MS	2B179703.D	1	11/11/20	EH	n/a	n/a	V2B8162
JD15901-6	2B179700.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	JD15901-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	56.4	113	73-125
100-42-5	Styrene	ND		50	51.2	102	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	53.2	106	71-122
127-18-4	Tetrachloroethene	ND		50	51.0	102	61-139
108-88-3	Toluene	ND		50	50.2	100	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	60.8	122	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	54.8	110	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	50.7	101	78-121
79-01-6	Trichloroethene	ND		50	54.5	109	62-141
75-69-4	Trichlorofluoromethane	ND		50	62.1	124	57-149
75-01-4	Vinyl chloride	ND		50	66.0	132	43-146
1330-20-7	Xylene (total)	ND		150	153	102	56-139

CAS No.	Surrogate Recoveries	MS	JD15901-6	Limits
1868-53-7	Dibromofluoromethane	106%	108%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	102%	81-124%
2037-26-5	Toluene-D8	96%	102%	80-120%
460-00-4	4-Bromofluorobenzene	100%	100%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15756-3DUP	L325859.D	1	11/09/20	EH	n/a	n/a	VL9702
JD15756-3 [a]	L325850.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	JD15756-3 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15756-3DUP	L325859.D	1	11/09/20	EH	n/a	n/a	VL9702
JD15756-3 [a]	L325850.D	1	11/09/20	EH	n/a	n/a	VL9702

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-2

CAS No.	Compound	JD15756-3 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD15756-3	Limits
1868-53-7	Dibromofluoromethane	113%	112%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	101%	81-124%
2037-26-5	Toluene-D8	102%	101%	80-120%
460-00-4	4-Bromofluorobenzene	99%	101%	80-120%

(a) Results reported from the HCl preserved sample. The reported result for acrolein is for screening only and cannot be used for compliance purposes.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15901-7DUP	2B179702.D	1	11/11/20	EH	n/a	n/a	V2B8162
JD15901-7	2B179701.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	JD15901-7 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	1.5		1.5		0	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD15901-7DUP	2B179702.D	1	11/11/20	EH	n/a	n/a	V2B8162
JD15901-7	2B179701.D	1	11/11/20	EH	n/a	n/a	V2B8162

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD15757-1

CAS No.	Compound	JD15901-7 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD15901-7	Limits
1868-53-7	Dibromofluoromethane	107%	108%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	103%	81-124%
2037-26-5	Toluene-D8	103%	102%	80-120%
460-00-4	4-Bromofluorobenzene	98%	98%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2B8113-BFB	**Injection Date:**	09/23/20
Lab File ID:	2B178740.D	**Injection Time:**	17:26
Instrument ID:	GCMS2B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11215	18.4		Pass
75	30.0 - 60.0% of mass 95	28704	47.2		Pass
95	Base peak, 100% relative abundance	60853	100.0		Pass
96	5.0 - 9.0% of mass 95	3927	6.45		Pass
173	Less than 2.0% of mass 174	165	0.27	(0.29) [a]	Pass
174	50.0 - 120.0% of mass 95	56736	93.2		Pass
175	5.0 - 9.0% of mass 174	4274	7.02	(7.53) [a]	Pass
176	95.0 - 101.0% of mass 174	55746	91.6	(98.3) [a]	Pass
177	5.0 - 9.0% of mass 176	3672	6.03	(6.59) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B8113-IC8113	2B178741.D	09/23/20	18:08	00:42	Initial cal 0.2
V2B8113-IC8113	2B178742.D	09/23/20	18:37	01:11	Initial cal 0.5
V2B8113-IC8113	2B178743.D	09/23/20	19:07	01:41	Initial cal 1
V2B8113-IC8113	2B178744.D	09/23/20	19:36	02:10	Initial cal 2
V2B8113-IC8113	2B178745.D	09/23/20	20:05	02:39	Initial cal 4
V2B8113-IC8113	2B178746.D	09/23/20	20:35	03:09	Initial cal 8
V2B8113-IC8113	2B178747.D	09/23/20	21:04	03:38	Initial cal 20
V2B8113-ICC8113	2B178748.D	09/23/20	21:34	04:08	Initial cal 50
V2B8113-IC8113	2B178749.D	09/23/20	22:03	04:37	Initial cal 100
V2B8113-IC8113	2B178750.D	09/23/20	22:32	05:06	Initial cal 200
V2B8113-ICV8113	2B178753.D	09/24/20	00:00	06:34	Initial cal verification 50
V2B8113-ICV8113	2B178754.D	09/24/20	00:29	07:03	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2B8162-BFB	**Injection Date:**	11/11/20
Lab File ID:	2B179690.D	**Injection Time:**	09:04
Instrument ID:	GCMS2B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11826	17.1		Pass
75	30.0 - 60.0% of mass 95	31677	45.9		Pass
95	Base peak, 100% relative abundance	68963	100.0		Pass
96	5.0 - 9.0% of mass 95	4740	6.87		Pass
173	Less than 2.0% of mass 174	533	0.77	(0.82) [a]	Pass
174	50.0 - 120.0% of mass 95	65224	94.6		Pass
175	5.0 - 9.0% of mass 174	4833	7.01	(7.41) [a]	Pass
176	95.0 - 101.0% of mass 174	63688	92.4	(97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	4161	6.03	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2B8162-CC8113	2B179690.D	11/11/20	09:04	00:00	Continuing cal 20
V2B8162-BS	2B179691.D	11/11/20	09:42	00:38	Blank Spike
V2B8162-MB	2B179693.D	11/11/20	10:42	01:38	Method Blank
JD15757-1	2B179694.D	11/11/20	11:28	02:24	BD24 SEER 110420
ZZZZZZ	2B179695.D	11/11/20	11:58	02:54	(unrelated sample)
ZZZZZZ	2B179696.D	11/11/20	12:28	03:24	(unrelated sample)
ZZZZZZ	2B179697.D	11/11/20	12:58	03:54	(unrelated sample)
ZZZZZZ	2B179698.D	11/11/20	13:28	04:24	(unrelated sample)
ZZZZZZ	2B179699.D	11/11/20	13:58	04:54	(unrelated sample)
JD15901-6	2B179700.D	11/11/20	14:28	05:24	(used for QC only; not part of job JD15757)
JD15901-7	2B179701.D	11/11/20	14:59	05:55	(used for QC only; not part of job JD15757)
JD15901-7DUP	2B179702.D	11/11/20	15:34	06:30	Duplicate
JD15901-6MS	2B179703.D	11/11/20	16:04	07:00	Matrix Spike
ZZZZZZ	2B179704.D	11/11/20	16:34	07:30	(unrelated sample)
ZZZZZZ	2B179705.D	11/11/20	17:03	07:59	(unrelated sample)
ZZZZZZ	2B179706.D	11/11/20	17:33	08:29	(unrelated sample)
ZZZZZZ	2B179707.D	11/11/20	18:03	08:59	(unrelated sample)
ZZZZZZ	2B179708.D	11/11/20	18:33	09:29	(unrelated sample)
ZZZZZZ	2B179709.D	11/11/20	19:03	09:59	(unrelated sample)
ZZZZZZ	2B179710.D	11/11/20	19:33	10:29	(unrelated sample)
ZZZZZZ	2B179711.D	11/11/20	20:03	10:59	(unrelated sample)
ZZZZZZ	2B179712.D	11/11/20	20:32	11:28	(unrelated sample)
ZZZZZZ	2B179713.D	11/11/20	21:02	11:58	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	VL9693-BFB	**Injection Date:**	10/31/20
Lab File ID:	L325658.D	**Injection Time:**	17:42
Instrument ID:	GCMSL		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14167	23.0		Pass
75	30.0 - 60.0% of mass 95	33125	53.9		Pass
95	Base peak, 100% relative abundance	61491	100.0		Pass
96	5.0 - 9.0% of mass 95	4493	7.31		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	52619	85.6		Pass
175	5.0 - 9.0% of mass 174	4378	7.12	(8.32) [a]	Pass
176	95.0 - 101.0% of mass 174	52917	86.1	(100.6) [a]	Pass
177	5.0 - 9.0% of mass 176	3384	5.50	(6.39) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VL9693-IC9693	L325659.D	10/31/20	18:11	00:29	Initial cal 0.2
VL9693-IC9693	L325660.D	10/31/20	18:38	00:56	Initial cal 0.5
VL9693-IC9693	L325661.D	10/31/20	19:05	01:23	Initial cal 1
VL9693-IC9693	L325662.D	10/31/20	19:32	01:50	Initial cal 2
VL9693-IC9693	L325663.D	10/31/20	19:59	02:17	Initial cal 4
VL9693-IC9693	L325664.D	10/31/20	20:26	02:44	Initial cal 8
VL9693-IC9693	L325665.D	10/31/20	20:54	03:12	Initial cal 20
VL9693-ICC9693	L325666.D	10/31/20	21:21	03:39	Initial cal 50
VL9693-IC9693	L325667.D	10/31/20	21:48	04:06	Initial cal 100
VL9693-IC9693	L325668.D	10/31/20	22:15	04:33	Initial cal 200
VL9693-ICV9693	L325671.D	10/31/20	23:35	05:53	Initial cal verification 50
VL9693-ICV9693	L325672.D	11/01/20	00:02	06:20	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	VL9702-BFB	**Injection Date:**	11/09/20
Lab File ID:	L325840.D	**Injection Time:**	09:28
Instrument ID:	GCMSL		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14292	20.5		Pass
75	30.0 - 60.0% of mass 95	36432	52.3		Pass
95	Base peak, 100% relative abundance	69717	100.0		Pass
96	5.0 - 9.0% of mass 95	4911	7.04		Pass
173	Less than 2.0% of mass 174	261	0.37	(0.43) [a]	Pass
174	50.0 - 120.0% of mass 95	60069	86.2		Pass
175	5.0 - 9.0% of mass 174	4827	6.92	(8.04) [a]	Pass
176	95.0 - 101.0% of mass 174	58427	83.8	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	3818	5.48	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VL9702-CC9693	L325840.D	11/09/20	09:28	00:00	Continuing cal 20
VL9702-BS	L325841.D	11/09/20	09:58	00:30	Blank Spike
VL9702-BSD	L325842.D	11/09/20	10:25	00:57	Blank Spike Duplicate
VL9702-MB	L325844.D	11/09/20	11:20	01:52	Method Blank
ZZZZZZ	L325845.D	11/09/20	12:00	02:32	(unrelated sample)
ZZZZZZ	L325846.D	11/09/20	12:28	03:00	(unrelated sample)
JD15659-2	L325847.D	11/09/20	12:55	03:27	(used for QC only; not part of job JD15757)
ZZZZZZ	L325848.D	11/09/20	13:23	03:55	(unrelated sample)
ZZZZZZ	L325849.D	11/09/20	13:50	04:22	(unrelated sample)
JD15756-3	L325850.D	11/09/20	14:17	04:49	(used for QC only; not part of job JD15757)
JD15757-2	L325851.D	11/09/20	14:45	05:17	OPEN DITCH 001 110420
JD15756-1	L325852.D	11/09/20	15:12	05:44	(used for QC only; not part of job JD15757)
ZZZZZZ	L325855.D	11/09/20	16:35	07:07	(unrelated sample)
ZZZZZZ	L325856.D	11/09/20	17:03	07:35	(unrelated sample)
JD15756-1MS	L325857.D	11/09/20	17:30	08:02	Matrix Spike
JD15756-3DUP	L325859.D	11/09/20	18:25	08:57	Duplicate
ZZZZZZ	L325860.D	11/09/20	18:53	09:25	(unrelated sample)
ZZZZZZ	L325861.D	11/09/20	19:20	09:52	(unrelated sample)
ZZZZZZ	L325862.D	11/09/20	19:47	10:19	(unrelated sample)
ZZZZZZ	L325863.D	11/09/20	20:15	10:47	(unrelated sample)
ZZZZZZ	L325864.D	11/09/20	20:42	11:14	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD15757
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD15757-1	2B179694.D	107	101	101	97
JD15757-2	L325851.D	115	101	103	98
JD15756-1MS	L325857.D	116	95	94	102
JD15756-3DUP	L325859.D	113	100	102	99
JD15901-6MS	2B179703.D	106	95	96	100
JD15901-7DUP	2B179702.D	107	98	103	98
V2B8162-BS	2B179691.D	105	96	96	99
V2B8162-MB	2B179693.D	107	102	102	98
VL9702-BS	L325841.D	105	99	95	101
VL9702-BSD	L325842.D	103	94	94	101
VL9702-MB	L325844.D	108	105	103	100

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/Task

SGS Job Number: JD16132

Sampling Date: 11/10/20

Report to:

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Total number of pages in report: 27

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD16132

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD16132-1	11/10/20	14:30	NW	11/12/20	AQ	Water	001/WB SEEPS
JD16132-2	11/10/20	16:30	NW	11/12/20	AQ	Water	001/WB SEEPS SOCK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD16132
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	11/23/2020 10:10:33 A

On 11/12/2020, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD16132 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V1A8893

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD16280-1MS, JD16280-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JD16132-1 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD16132-1 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD16132-1 for Chloromethane: Associated CCV outside of control limits high, sample was ND.
- JD16132-2 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD16132-2 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD16132-2 for Chloromethane: Associated CCV outside of control limits high, sample was ND.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD16132
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 11/10/20

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD16132-1	**001/WB SEEPS**					
Bromodichloromethane		1.3	1.0	0.45	ug/l	SW846 8260D
Chloroform		3.4	1.0	0.50	ug/l	SW846 8260D
Dibromochloromethane		0.64 J	1.0	0.56	ug/l	SW846 8260D
cis-1,2-Dichloroethene		10.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		4.5	1.0	0.53	ug/l	SW846 8260D
JD16132-2	**001/WB SEEPS SOCK**					
Bromodichloromethane		1.4	1.0	0.45	ug/l	SW846 8260D
Chloroform		3.2	1.0	0.50	ug/l	SW846 8260D
Dibromochloromethane		0.58 J	1.0	0.56	ug/l	SW846 8260D
cis-1,2-Dichloroethene		10.5	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		4.7	1.0	0.53	ug/l	SW846 8260D

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	001/WB SEEPS		
Lab Sample ID:	JD16132-1	**Date Sampled:**	11/10/20
Matrix:	AQ - Water	**Date Received:**	11/12/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A205568.D	1	11/20/20 10:31	ED	n/a	n/a	V1A8893
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.3	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	3.4	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	0.64	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	10.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	001/WB SEEPS		
Lab Sample ID:	JD16132-1	**Date Sampled:**	11/10/20
Matrix:	AQ - Water	**Date Received:**	11/12/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	85%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	001/WB SEEPS SOCK		
Lab Sample ID:	JD16132-2	**Date Sampled:**	11/10/20
Matrix:	AQ - Water	**Date Received:**	11/12/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A205569.D	1	11/20/20 10:55	ED	n/a	n/a	V1A8893
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.4	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	3.2	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	0.58	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	10.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	001/WB SEEPS SOCK		
Lab Sample ID:	JD16132-2	**Date Sampled:**	11/10/20
Matrix:	AQ - Water	**Date Received:**	11/12/20
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.7	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	88%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

WW

Initial Assessment MK 14

Label Verification______

wsp

Chain of Custody Form

TM 10620-45

Page 1 of 1

WSP Office Address		Requested Analyses & Preservatives	No. JD 16132
7000 East Genesee Street, Building D, 2nd Floor			
Project Name: Emersub 15, LLC	WSP Contact Name: Nathaniel Winston	8260 VOCs TCL 48	Laboratory Name & Location: SGS NJ
Project Location: Ithaca, NY	WSP Contact E-mail: NATHANIEL.WINSTON@wsp.com		Laboratory Project Manager:
Project Number & Task: 31401545.001/Task	WSP Contact Phone: 315-420-9973		Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR
Sampler(s) Name(s): Nathaniel Winston	Sampler(s) Signature(s): [signature]		

#	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs TCL 48	Sample Comments
1	001/WB SEEPS	AQ	—		11/10/20	1430	3	X	
2	001/WB SEEPS SOCK	AQ	—		11/10/20	1630	3	X	
									V558

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]			Fx	11/12/20	10:15	FedEx	3988 1402 9556
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
FedEx	11-12-20	10:15	[signature]			1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

1.9° CIR-4

5.1 5

JD16132: Chain of Custody

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SGS Sample Receipt Summary

Job Number: JD16132 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 11/12/2020 10:15:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (1.9);

Cooler Temps (Corrected) °C: Cooler 1: (1.4);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD16132: Chain of Custody
Page 2 of 2

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8893-MB	1A205567.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8893-MB	1A205567.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	94%	80-120%
17060-07-0	1,2-Dichloroethane-D4	85%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	94%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	1.65	6.5	ug/l	J
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8893-BS	1A205565.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	215	108	51-151
71-43-2	Benzene	50	48.7	97	75-122
75-27-4	Bromodichloromethane	50	49.6	99	77-128
75-25-2	Bromoform	50	60.4	121	67-141
74-83-9	Bromomethane	50	63.8	128	53-152
78-93-3	2-Butanone (MEK)	200	206	103	64-130
75-15-0	Carbon disulfide	50	45.8	92	59-140
56-23-5	Carbon tetrachloride	50	50.5	101	75-148
108-90-7	Chlorobenzene	50	48.1	96	76-124
75-00-3	Chloroethane	50	40.7	81	54-147
67-66-3	Chloroform	50	44.9	90	77-124
74-87-3	Chloromethane	50	55.6	111	46-144
110-82-7	Cyclohexane	50	49.7	99	62-127
96-12-8	1,2-Dibromo-3-chloropropane	50	52.6	105	64-134
124-48-1	Dibromochloromethane	50	53.5	107	76-132
106-93-4	1,2-Dibromoethane	50	50.5	101	75-130
95-50-1	1,2-Dichlorobenzene	50	48.2	96	74-125
541-73-1	1,3-Dichlorobenzene	50	49.7	99	73-124
106-46-7	1,4-Dichlorobenzene	50	47.2	94	71-123
75-71-8	Dichlorodifluoromethane	50	47.8	96	42-152
75-34-3	1,1-Dichloroethane	50	43.6	87	72-124
107-06-2	1,2-Dichloroethane	50	39.3	79	66-150
75-35-4	1,1-Dichloroethene	50	48.0	96	61-132
156-59-2	cis-1,2-Dichloroethene	50	47.7	95	71-119
156-60-5	trans-1,2-Dichloroethene	50	48.9	98	71-123
78-87-5	1,2-Dichloropropane	50	46.4	93	75-120
10061-01-5	cis-1,3-Dichloropropene	50	47.7	95	77-124
10061-02-6	trans-1,3-Dichloropropene	50	44.4	89	75-132
100-41-4	Ethylbenzene	50	47.8	96	77-124
76-13-1	Freon 113	50	54.7	109	58-149
591-78-6	2-Hexanone	200	191	96	58-136
98-82-8	Isopropylbenzene	50	49.4	99	60-136
79-20-9	Methyl Acetate	50	45.4	91	57-139
108-87-2	Methylcyclohexane	50	55.1	110	73-130
1634-04-4	Methyl Tert Butyl Ether	50	45.1	90	72-127
108-10-1	4-Methyl-2-pentanone(MIBK)	200	195	98	63-135

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A8893-BS	1A205565.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	47.5	95	69-122
100-42-5	Styrene	50	48.7	97	78-126
79-34-5	1,1,2,2-Tetrachloroethane	50	49.0	98	66-125
127-18-4	Tetrachloroethene	50	51.2	102	70-136
108-88-3	Toluene	50	46.1	92	76-126
120-82-1	1,2,4-Trichlorobenzene	50	53.2	106	67-132
71-55-6	1,1,1-Trichloroethane	50	46.2	92	77-136
79-00-5	1,1,2-Trichloroethane	50	45.5	91	75-123
79-01-6	Trichloroethene	50	46.9	94	79-126
75-69-4	Trichlorofluoromethane	50	41.9	84	56-154
75-01-4	Vinyl chloride	50	45.2	90	56-146
1330-20-7	Xylene (total)	150	144	96	77-125

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	76-120%
17060-07-0	1,2-Dichloroethane-D4	84%	64-135%
2037-26-5	Toluene-D8	94%	76-117%
460-00-4	4-Bromofluorobenzene	92%	72-122%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD16280-1MS	1A205574.D	1	11/20/20	ED	n/a	n/a	V1A8893
JD16280-1	1A205570.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	JD16280-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	181	91	34-149
71-43-2	Benzene	ND		50	53.4	107	54-136
75-27-4	Bromodichloromethane	ND		50	52.4	105	79-124
75-25-2	Bromoform	ND		50	60.4	121	71-130
74-83-9	Bromomethane	ND		50	63.1	126	53-142
78-93-3	2-Butanone (MEK)	ND		200	198	99	54-142
75-15-0	Carbon disulfide	ND		50	53.0	106	59-145
56-23-5	Carbon tetrachloride	ND		50	56.7	113	70-143
108-90-7	Chlorobenzene	ND		50	50.8	102	78-123
75-00-3	Chloroethane	ND		50	43.6	87	57-141
67-66-3	Chloroform	ND		50	48.1	96	76-123
74-87-3	Chloromethane	ND		50	59.5	119	43-141
110-82-7	Cyclohexane	ND		50	56.8	114	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	52.3	105	66-130
124-48-1	Dibromochloromethane	ND		50	55.0	110	76-125
106-93-4	1,2-Dibromoethane	ND		50	52.1	104	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	50.2	100	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	51.9	104	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	48.9	98	76-122
75-71-8	Dichlorodifluoromethane	ND		50	63.4	127	31-159
75-34-3	1,1-Dichloroethane	ND		50	46.7	93	73-126
107-06-2	1,2-Dichloroethane	ND		50	40.8	82	72-131
75-35-4	1,1-Dichloroethene	ND		50	55.5	111	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	50.7	101	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	54.0	108	70-126
78-87-5	1,2-Dichloropropane	ND		50	50.2	100	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	49.5	99	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	45.4	91	77-123
100-41-4	Ethylbenzene	ND		50	51.1	102	51-140
76-13-1	Freon 113	ND		50	68.2	136	60-192
591-78-6	2-Hexanone	ND		200	195	98	56-139
98-82-8	Isopropylbenzene	ND		50	52.1	104	75-129
79-20-9	Methyl Acetate	ND		50	46.4	93	55-131
108-87-2	Methylcyclohexane	ND		50	65.7	131	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	45.2	90	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	204	102	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD16280-1MS	1A205574.D	1	11/20/20	ED	n/a	n/a	V1A8893
JD16280-1	1A205570.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	JD16280-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	49.2	98	73-125
100-42-5	Styrene	ND		50	51.0	102	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	50.1	100	71-122
127-18-4	Tetrachloroethene	ND		50	57.4	115	61-139
108-88-3	Toluene	ND		50	49.9	100	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	55.1	110	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	51.2	102	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	47.9	96	78-121
79-01-6	Trichloroethene	ND		50	52.0	104	62-141
75-69-4	Trichlorofluoromethane	ND		50	49.6	99	57-149
75-01-4	Vinyl chloride	ND		50	51.8	104	43-146
1330-20-7	Xylene (total)	ND		150	154	103	56-139

CAS No.	Surrogate Recoveries	MS	JD16280-1	Limits
1868-53-7	Dibromofluoromethane	97%	96%	80-120%
17060-07-0	1,2-Dichloroethane-D4	86%	87%	81-124%
2037-26-5	Toluene-D8	94%	98%	80-120%
460-00-4	4-Bromofluorobenzene	92%	93%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD16280-2DUP	1A205576.D	1	11/20/20	ED	n/a	n/a	V1A8893
JD16280-2	1A205571.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	JD16280-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD16280-2DUP	1A205576.D	1	11/20/20	ED	n/a	n/a	V1A8893
JD16280-2	1A205571.D	1	11/20/20	ED	n/a	n/a	V1A8893

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD16132-1, JD16132-2

CAS No.	Compound	JD16280-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD16280-2	Limits
1868-53-7	Dibromofluoromethane	96%	96%	80-120%
17060-07-0	1,2-Dichloroethane-D4	88%	88%	81-124%
2037-26-5	Toluene-D8	97%	97%	80-120%
460-00-4	4-Bromofluorobenzene	92%	94%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V1A8794-BFB	**Injection Date:**	08/25/20
Lab File ID:	1A203675.D	**Injection Time:**	20:46
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12151	18.9		Pass
75	30.0 - 60.0% of mass 95	31947	49.6		Pass
95	Base peak, 100% relative abundance	64355	100.0		Pass
96	5.0 - 9.0% of mass 95	4450	6.91		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	55899	86.9		Pass
175	5.0 - 9.0% of mass 174	4340	6.74	(7.76) [a]	Pass
176	95.0 - 101.0% of mass 174	54523	84.7	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3272	5.08	(6.00) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8794-IC8794	1A203676.D	08/25/20	21:11	00:25	Initial cal 0.2
V1A8794-IC8794	1A203677.D	08/25/20	21:36	00:50	Initial cal 0.5
V1A8794-IC8794	1A203678.D	08/25/20	22:01	01:15	Initial cal 1
V1A8794-IC8794	1A203679.D	08/25/20	22:27	01:41	Initial cal 2
V1A8794-IC8794	1A203680.D	08/25/20	22:52	02:06	Initial cal 4
V1A8794-IC8794	1A203681.D	08/25/20	23:17	02:31	Initial cal 8
V1A8794-IC8794	1A203682.D	08/25/20	23:42	02:56	Initial cal 20
V1A8794-ICC8794	1A203683.D	08/26/20	00:07	03:21	Initial cal 50
V1A8794-IC8794	1A203684.D	08/26/20	00:32	03:46	Initial cal 100
V1A8794-IC8794	1A203685.D	08/26/20	00:57	04:11	Initial cal 200
V1A8794-ICV8794	1A203688.D	08/26/20	02:12	05:26	Initial cal verification 50
V1A8794-ICV8794	1A203689.D	08/26/20	02:37	05:51	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V1A8794-BFB2	**Injection Date:**	08/27/20
Lab File ID:	1A203691.D	**Injection Time:**	16:16
Instrument ID:	GCMS1A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11636	18.7		Pass
75	30.0 - 60.0% of mass 95	31472	50.5		Pass
95	Base peak, 100% relative abundance	62368	100.0		Pass
96	5.0 - 9.0% of mass 95	4314	6.92		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	53867	86.4		Pass
175	5.0 - 9.0% of mass 174	4530	7.26	(8.41) [a]	Pass
176	95.0 - 101.0% of mass 174	53731	86.2	(99.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3290	5.28	(6.12) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8794-ICV8794	1A203692.D	08/27/20	16:47	00:31	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V1A8893-BFB
Lab File ID: 1A205564.D
Instrument ID: GCMS1A
Injection Date: 11/20/20
Injection Time: 08:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	8532	16.0		Pass
75	30.0 - 60.0% of mass 95	24341	45.7		Pass
95	Base peak, 100% relative abundance	53253	100.0		Pass
96	5.0 - 9.0% of mass 95	3611	6.78		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	50787	95.4		Pass
175	5.0 - 9.0% of mass 174	3758	7.06	(7.40) [a]	Pass
176	95.0 - 101.0% of mass 174	49821	93.6	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	3198	6.01	(6.42) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A8893-CC8794	1A205564.D	11/20/20	08:39	00:00	Continuing cal 20
V1A8893-BS	1A205565.D	11/20/20	09:11	00:32	Blank Spike
V1A8893-MB	1A205567.D	11/20/20	10:00	01:21	Method Blank
JD16132-1	1A205568.D	11/20/20	10:31	01:52	001/WB SEEPS
JD16132-2	1A205569.D	11/20/20	10:55	02:16	001/WB SEEPS SOCK
JD16280-1	1A205570.D	11/20/20	11:20	02:41	(used for QC only; not part of job JD16132)
JD16280-2	1A205571.D	11/20/20	11:45	03:06	(used for QC only; not part of job JD16132)
ZZZZZZ	1A205572.D	11/20/20	12:10	03:31	(unrelated sample)
ZZZZZZ	1A205573.D	11/20/20	12:35	03:56	(unrelated sample)
JD16280-1MS	1A205574.D	11/20/20	13:00	04:21	Matrix Spike
JD16280-2DUP	1A205576.D	11/20/20	13:50	05:11	Duplicate
ZZZZZZ	1A205577.D	11/20/20	14:15	05:36	(unrelated sample)
ZZZZZZ	1A205578.D	11/20/20	14:39	06:00	(unrelated sample)
ZZZZZZ	1A205579.D	11/20/20	15:04	06:25	(unrelated sample)
ZZZZZZ	1A205580.D	11/20/20	15:29	06:50	(unrelated sample)
ZZZZZZ	1A205581.D	11/20/20	15:54	07:15	(unrelated sample)
ZZZZZZ	1A205582.D	11/20/20	16:19	07:40	(unrelated sample)
ZZZZZZ	1A205583.D	11/20/20	16:44	08:05	(unrelated sample)
ZZZZZZ	1A205584.D	11/20/20	17:09	08:30	(unrelated sample)
ZZZZZZ	1A205585.D	11/20/20	17:34	08:55	(unrelated sample)
ZZZZZZ	1A205586.D	11/20/20	17:59	09:20	(unrelated sample)
ZZZZZZ	1A205587.D	11/20/20	18:24	09:45	(unrelated sample)
ZZZZZZ	1A205588.D	11/20/20	18:49	10:10	(unrelated sample)
ZZZZZZ	1A205589.D	11/20/20	19:14	10:35	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V1A8893-BFB	**Injection Date:**	11/20/20
Lab File ID:	1A205564.D	**Injection Time:**	08:39
Instrument ID:	GCMS1A		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	1A205590.D	11/20/20	19:39	11:00	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD16132
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD16132-1	1A205568.D	96	85	99	94
JD16132-2	1A205569.D	95	88	97	94
JD16280-1MS	1A205574.D	97	86	94	92
JD16280-2DUP	1A205576.D	96	88	97	92
V1A8893-BS	1A205565.D	95	84	94	92
V1A8893-MB	1A205567.D	94	85	98	94

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/Task

SGS Job Number: JD19023

Sampling Date: 01/13/21

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 27

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD19023

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JD19023-1	01/13/21	12:25	NW	01/14/21	AQ	Water	RETAINING WALL SUMP 011321
JD19023-2	01/13/21	12:40	NW	01/14/21	AQ	Water	OPEN DITCH 001 011321
JD19023-3	01/13/21	12:50	NW	01/14/21	AQ	Water	BD24 SEEP 011321

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD19023
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	1/20/2021 1:38:01 PM

On 01/14/2021, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD19023 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2A9035

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD19001-14DUP, JD19001-15MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,2-Dibromoethane are outside control limits. High percent recovery and no associated positive reported in the QC batch.
- JD19023-1 for Acetone: Associated CCV outside of control limits high, sample was ND.
- JD19023-1 for Chloromethane: Associated CCV outside of control limits high, sample was ND.
- JD19023-1 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD19023-2 for Acetone: Associated CCV outside of control limits high, sample was ND.
- JD19023-2 for Chloromethane: Associated CCV outside of control limits high, sample was ND.
- JD19023-2 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD19023-3 for Acetone: Associated CCV outside of control limits high, sample was ND.
- JD19023-3 for Chloromethane: Associated CCV outside of control limits high, sample was ND.
- JD19023-3 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD19023
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 01/13/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD19023-1	**RETAINING WALL SUMP 011321**					
cis-1,2-Dichloroethene		5.9	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		5.6	1.0	0.79	ug/l	SW846 8260D
JD19023-2	**OPEN DITCH 001 011321**					
No hits reported in this sample.						
JD19023-3	**BD24 SEEP 011321**					
cis-1,2-Dichloroethene		2.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		15.7	1.0	0.53	ug/l	SW846 8260D

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	RETAINING WALL SUMP 011321		
Lab Sample ID:	JD19023-1	**Date Sampled:**	01/13/21
Matrix:	AQ - Water	**Date Received:**	01/14/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A207868.D	1	01/19/21 12:50	BK	n/a	n/a	V2A9035
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	5.9	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RETAINING WALL SUMP 011321		
Lab Sample ID:	JD19023-1	**Date Sampled:**	01/13/21
Matrix:	AQ - Water	**Date Received:**	01/14/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	5.6	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 011321		
Lab Sample ID:	JD19023-2	**Date Sampled:**	01/13/21
Matrix:	AQ - Water	**Date Received:**	01/14/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A207869.D	1	01/19/21 13:18	BK	n/a	n/a	V2A9035
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 011321		
Lab Sample ID:	JD19023-2	**Date Sampled:**	01/13/21
Matrix:	AQ - Water	**Date Received:**	01/14/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 011321		
Lab Sample ID:	JD19023-3	**Date Sampled:**	01/13/21
Matrix:	AQ - Water	**Date Received:**	01/14/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A207870.D	1	01/19/21 13:46	BK	n/a	n/a	V2A9035
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 011321		
Lab Sample ID:	JD19023-3	**Date Sampled:**	01/13/21
Matrix:	AQ - Water	**Date Received:**	01/14/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	15.7	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	107%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

WW

wsp

Chain of Custody Form

TM-10620-46

Page 1 of 1

WSP Office Address		Requested Analyses & Preservatives	No. JD 19023
7000 East Genesee Street, Building D, 2nd Floor			
Project Name Emersub 15, LLC	**WSP Contact Name** Nathaniel Winston		**Laboratory Name & Location** SGS Dayton NJ
Project Location Ithaca, NY	**WSP Contact E-mail** NATHANIEL.WINSTON@wsp.com		**Laboratory Project Manager** TAMMY McCLOSKEY
Project Number & Task 31401545.001/Task	**WSP Contact Phone** 315-480-9973		**Requested Turn-Around-Time** ☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR
Sampler(s) Name(s) Nathaniel Winston	**Sampler(s) Signature(s)**		

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 TCL 4	Sample Comments
1	RETAINING WALL SW 011321	AQ	—	—	1/13/21	1205	3	X	
2	OPEN DITCH 001 011321	AQ	—	—	1/13/21	1240	3	X	
3	BD 84 SEEP 01321	AQ	—	—	1/13/21	1350	3	X	
									V967

INITIAL ASSESSMENT IS 3A

LABEL VERIFICATION ___

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	1/13/21	1530				Fedex	7825 7602 4082
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
FedEx	1/14/21	9:30				1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

5.0 c
c.g

JD19023: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD19023 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 1/14/2021 9:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (5.0);

Cooler Temps (Corrected) °C: Cooler 1: (4.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD19023: Chain of Custody
Page 2 of 2

MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A9035-MB	2A207863.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A9035-MB	2A207863.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	109%	81-124%
2037-26-5	Toluene-D8	104%	80-120%
460-00-4	4-Bromofluorobenzene	99%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A9035-BS	2A207861.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	223	112	42-150
71-43-2	Benzene	50	54.6	109	80-120
75-27-4	Bromodichloromethane	50	55.1	110	83-120
75-25-2	Bromoform	50	58.4	117	76-129
74-83-9	Bromomethane	50	51.3	103	57-138
78-93-3	2-Butanone (MEK)	200	207	104	64-137
75-15-0	Carbon disulfide	50	55.7	111	64-137
56-23-5	Carbon tetrachloride	50	54.9	110	75-135
108-90-7	Chlorobenzene	50	53.6	107	84-117
75-00-3	Chloroethane	50	59.2	118	63-132
67-66-3	Chloroform	50	51.0	102	80-119
74-87-3	Chloromethane	50	63.0	126	46-136
110-82-7	Cyclohexane	50	55.8	112	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	49.8	100	72-127
124-48-1	Dibromochloromethane	50	57.6	115	80-123
106-93-4	1,2-Dibromoethane	50	61.3	123* [a]	84-117
95-50-1	1,2-Dichlorobenzene	50	50.9	102	84-119
541-73-1	1,3-Dichlorobenzene	50	51.8	104	81-117
106-46-7	1,4-Dichlorobenzene	50	51.9	104	82-117
75-71-8	Dichlorodifluoromethane	50	58.1	116	36-149
75-34-3	1,1-Dichloroethane	50	56.0	112	79-120
107-06-2	1,2-Dichloroethane	50	55.1	110	78-126
75-35-4	1,1-Dichloroethene	50	50.8	102	69-126
156-59-2	cis-1,2-Dichloroethene	50	51.0	102	80-120
156-60-5	trans-1,2-Dichloroethene	50	51.3	103	76-120
78-87-5	1,2-Dichloropropane	50	56.9	114	82-121
10061-01-5	cis-1,3-Dichloropropene	50	57.1	114	83-120
10061-02-6	trans-1,3-Dichloropropene	50	58.1	116	82-121
100-41-4	Ethylbenzene	50	53.1	106	80-120
76-13-1	Freon 113	50	50.8	102	62-182
591-78-6	2-Hexanone	200	195	98	65-132
98-82-8	Isopropylbenzene	50	54.2	108	83-120
79-20-9	Methyl Acetate	50	58.4	117	67-129
108-87-2	Methylcyclohexane	50	51.8	104	71-134
1634-04-4	Methyl Tert Butyl Ether	50	49.9	100	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	197	99	71-131

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2A9035-BS	2A207861.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	50.6	101	77-120
100-42-5	Styrene	50	60.8	122	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.6	99	76-119
127-18-4	Tetrachloroethene	50	55.4	111	70-131
108-88-3	Toluene	50	55.0	110	80-120
120-82-1	1,2,4-Trichlorobenzene	50	50.5	101	79-132
71-55-6	1,1,1-Trichloroethane	50	54.8	110	81-128
79-00-5	1,1,2-Trichloroethane	50	53.6	107	83-118
79-01-6	Trichloroethene	50	52.0	104	80-120
75-69-4	Trichlorofluoromethane	50	52.9	106	64-136
75-01-4	Vinyl chloride	50	57.1	114	51-135
1330-20-7	Xylene (total)	150	160	107	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	109%	81-124%
2037-26-5	Toluene-D8	108%	80-120%
460-00-4	4-Bromofluorobenzene	99%	80-120%

(a) High percent recovery and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD19001-15MS	2A207871.D	1	01/19/21	BK	n/a	n/a	V2A9035
JD19001-15	2A207865.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	JD19001-15 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	ND		200	119	60	34-149
71-43-2	Benzene	2.1		50	52.0	100	54-136
75-27-4	Bromodichloromethane	ND		50	49.3	99	79-124
75-25-2	Bromoform	ND		50	49.0	98	71-130
74-83-9	Bromomethane	ND		50	55.1	110	53-142
78-93-3	2-Butanone (MEK)	ND		200	143	72	54-142
75-15-0	Carbon disulfide	ND		50	50.3	101	59-145
56-23-5	Carbon tetrachloride	ND		50	51.1	102	70-143
108-90-7	Chlorobenzene	ND		50	49.0	98	78-123
75-00-3	Chloroethane	ND		50	62.5	125	57-141
67-66-3	Chloroform	ND		50	46.3	93	76-123
74-87-3	Chloromethane	ND		50	67.5	135	43-141
110-82-7	Cyclohexane	ND		50	59.6	119	51-155
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	40.7	81	66-130
124-48-1	Dibromochloromethane	ND		50	49.9	100	76-125
106-93-4	1,2-Dibromoethane	ND		50	55.5	111	78-119
95-50-1	1,2-Dichlorobenzene	ND		50	47.3	95	77-123
541-73-1	1,3-Dichlorobenzene	ND		50	49.6	99	76-122
106-46-7	1,4-Dichlorobenzene	ND		50	48.9	98	76-122
75-71-8	Dichlorodifluoromethane	ND		50	68.9	138	31-159
75-34-3	1,1-Dichloroethane	ND		50	50.5	101	73-126
107-06-2	1,2-Dichloroethane	ND		50	48.1	96	72-131
75-35-4	1,1-Dichloroethene	ND		50	47.1	94	63-136
156-59-2	cis-1,2-Dichloroethene	ND		50	46.7	93	60-136
156-60-5	trans-1,2-Dichloroethene	ND		50	47.2	94	70-126
78-87-5	1,2-Dichloropropane	ND		50	51.3	103	78-124
10061-01-5	cis-1,3-Dichloropropene	ND		50	50.7	101	79-123
10061-02-6	trans-1,3-Dichloropropene	ND		50	50.6	101	77-123
100-41-4	Ethylbenzene	4.9		50	55.0	100	51-140
76-13-1	Freon 113	ND		50	53.2	106	60-192
591-78-6	2-Hexanone	ND		200	146	73	56-139
98-82-8	Isopropylbenzene	1.1		50	51.3	100	75-129
79-20-9	Methyl Acetate	ND		50	40.3	81	55-131
108-87-2	Methylcyclohexane	1.0	J	50	54.4	107	57-155
1634-04-4	Methyl Tert Butyl Ether	ND		50	40.6	81	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	162	81	66-136

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD19001-15MS	2A207871.D	1	01/19/21	BK	n/a	n/a	V2A9035
JD19001-15	2A207865.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	JD19001-15 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
75-09-2	Methylene chloride	ND		50	44.5	89	73-125
100-42-5	Styrene	ND		50	55.5	111	75-129
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	42.5	85	71-122
127-18-4	Tetrachloroethene	3.6		50	55.2	103	61-139
108-88-3	Toluene	ND		50	50.8	102	60-135
120-82-1	1,2,4-Trichlorobenzene	ND		50	47.8	96	72-137
71-55-6	1,1,1-Trichloroethane	ND		50	50.3	101	74-138
79-00-5	1,1,2-Trichloroethane	ND		50	47.2	94	78-121
79-01-6	Trichloroethene	ND		50	48.3	97	62-141
75-69-4	Trichlorofluoromethane	ND		50	60.7	121	57-149
75-01-4	Vinyl chloride	ND		50	64.0	128	43-146
1330-20-7	Xylene (total)	39.8		150	193	102	56-139

CAS No.	Surrogate Recoveries	MS	JD19001-15	Limits
1868-53-7	Dibromofluoromethane	102%	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	105%	107%	81-124%
2037-26-5	Toluene-D8	107%	106%	80-120%
460-00-4	4-Bromofluorobenzene	101%	99%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD19001-14DUP	2A207873.D	1	01/19/21	BK	n/a	n/a	V2A9035
JD19001-14	2A207864.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	JD19001-14 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	ND		ND		nc	20
71-43-2	Benzene	ND		ND		nc	20
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
78-93-3	2-Butanone (MEK)	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	20
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	ND		ND		nc	20
74-87-3	Chloromethane	ND		ND		nc	20
110-82-7	Cyclohexane	ND		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	20
124-48-1	Dibromochloromethane	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	20
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	20
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	20
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethene	ND		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
76-13-1	Freon 113	ND		ND		nc	20
591-78-6	2-Hexanone	ND		ND		nc	20
98-82-8	Isopropylbenzene	ND		ND		nc	20
79-20-9	Methyl Acetate	ND		ND		nc	20
108-87-2	Methylcyclohexane	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD19001-14DUP	2A207873.D	1	01/19/21	BK	n/a	n/a	V2A9035
JD19001-14	2A207864.D	1	01/19/21	BK	n/a	n/a	V2A9035

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD19023-1, JD19023-2, JD19023-3

CAS No.	Compound	JD19001-14 ug/l	Q	DUP ug/l	Q	RPD	Limits
75-09-2	Methylene chloride	ND		ND		nc	20
100-42-5	Styrene	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
127-18-4	Tetrachloroethene	16.7		16.8		1	20
108-88-3	Toluene	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
79-01-6	Trichloroethene	ND		ND		nc	20
75-69-4	Trichlorofluoromethane	ND		ND		nc	20
75-01-4	Vinyl chloride	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JD19001-14	Limits
1868-53-7	Dibromofluoromethane	102%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	109%	106%	81-124%
2037-26-5	Toluene-D8	106%	105%	80-120%
460-00-4	4-Bromofluorobenzene	101%	100%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V2A8967-BFB	**Injection Date:**	11/11/20
Lab File ID:	2A206380.D	**Injection Time:**	15:06
Instrument ID:	GCMS2A		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	28360	15.6		Pass
75	30.0 - 60.0% of mass 95	80296	44.2		Pass
95	Base peak, 100% relative abundance	181461	100.0		Pass
96	5.0 - 9.0% of mass 95	12072	6.65		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	161344	88.9		Pass
175	5.0 - 9.0% of mass 174	11891	6.55	(7.37) [a]	Pass
176	95.0 - 101.0% of mass 174	157568	86.8	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	10598	5.84	(6.73) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A8967-IC8967	2A206381.D	11/11/20	15:42	00:36	Initial cal 0.2
V2A8967-IC8967	2A206382.D	11/11/20	16:11	01:05	Initial cal 0.5
V2A8967-IC8967	2A206383.D	11/11/20	16:41	01:35	Initial cal 1
V2A8967-IC8967	2A206384.D	11/11/20	17:10	02:04	Initial cal 2
V2A8967-IC8967	2A206385.D	11/11/20	17:40	02:34	Initial cal 4
V2A8967-IC8967	2A206386.D	11/11/20	18:09	03:03	Initial cal 8
V2A8967-IC8967	2A206387.D	11/11/20	18:38	03:32	Initial cal 20
V2A8967-ICC8967	2A206388.D	11/11/20	19:08	04:02	Initial cal 50
V2A8967-IC8967	2A206389.D	11/11/20	19:37	04:31	Initial cal 100
V2A8967-IC8967	2A206390.D	11/11/20	20:06	05:00	Initial cal 200
V2A8967-ICV8967	2A206393.D	11/11/20	21:35	06:29	Initial cal verification 50
V2A8967-ICV8967	2A206394.D	11/11/20	22:04	06:58	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V2A9035-BFB
Lab File ID: 2A207860.D
Instrument ID: GCMS2A
Injection Date: 01/19/21
Injection Time: 08:58

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	23629	18.1		Pass
75	30.0 - 60.0% of mass 95	61688	47.1		Pass
95	Base peak, 100% relative abundance	130845	100.0		Pass
96	5.0 - 9.0% of mass 95	8141	6.22		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	122101	93.3		Pass
175	5.0 - 9.0% of mass 174	9950	7.60	(8.15) [a]	Pass
176	95.0 - 101.0% of mass 174	120667	92.2	(98.8) [a]	Pass
177	5.0 - 9.0% of mass 176	7983	6.10	(6.62) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2A9035-CC8967	2A207860.D	01/19/21	08:58	00:00	Continuing cal 20
V2A9035-BS	2A207861.D	01/19/21	09:34	00:36	Blank Spike
V2A9035-MB	2A207863.D	01/19/21	10:30	01:32	Method Blank
JD19001-14	2A207864.D	01/19/21	10:58	02:00	(used for QC only; not part of job JD19023)
JD19001-15	2A207865.D	01/19/21	11:26	02:28	(used for QC only; not part of job JD19023)
ZZZZZZ	2A207866.D	01/19/21	11:54	02:56	(unrelated sample)
ZZZZZZ	2A207867.D	01/19/21	12:22	03:24	(unrelated sample)
JD19023-1	2A207868.D	01/19/21	12:50	03:52	RETAINING WALL SUMP 011321
JD19023-2	2A207869.D	01/19/21	13:18	04:20	OPEN DITCH 001 011321
JD19023-3	2A207870.D	01/19/21	13:46	04:48	BD24 SEEP 011321
JD19001-15MS	2A207871.D	01/19/21	14:14	05:16	Matrix Spike
JD19001-14DUP	2A207873.D	01/19/21	15:11	06:13	Duplicate
ZZZZZZ	2A207874.D	01/19/21	15:39	06:41	(unrelated sample)
ZZZZZZ	2A207875.D	01/19/21	16:07	07:09	(unrelated sample)
ZZZZZZ	2A207876.D	01/19/21	16:35	07:37	(unrelated sample)
ZZZZZZ	2A207878.D	01/19/21	17:31	08:33	(unrelated sample)
ZZZZZZ	2A207879.D	01/19/21	17:59	09:01	(unrelated sample)
ZZZZZZ	2A207880.D	01/19/21	18:27	09:29	(unrelated sample)
ZZZZZZ	2A207881.D	01/19/21	18:55	09:57	(unrelated sample)
ZZZZZZ	2A207882.D	01/19/21	19:23	10:25	(unrelated sample)
ZZZZZZ	2A207883.D	01/19/21	19:51	10:53	(unrelated sample)
ZZZZZZ	2A207884.D	01/19/21	20:19	11:21	(unrelated sample)
ZZZZZZ	2A207885.D	01/19/21	20:47	11:49	(unrelated sample)

Surrogate Recovery Summary

Job Number: JD19023
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD19023-1	2A207868.D	102	108	105	100
JD19023-2	2A207869.D	101	109	105	101
JD19023-3	2A207870.D	101	107	105	102
JD19001-14DUP	2A207873.D	102	109	106	101
JD19001-15MS	2A207871.D	102	105	107	101
V2A9035-BS	2A207861.D	104	109	108	99
V2A9035-MB	2A207863.D	101	109	104	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/TASK

SGS Job Number: JD21880

Sampling Date: 03/16/21

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 17

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD21880

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD21880-1	03/16/21	09:30	NW	03/17/21	AQ	Water	BD24 SEEP 031621
JD21880-2	03/16/21	09:45	NW	03/17/21	AQ	Water	OPEN DITCH 001 031621
JD21880-3	03/16/21	10:10	NW	03/17/21	AQ	Water	RW SUMP 031621

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD21880
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	3/24/2021 12:10:07 P

On 03/17/2021, 3 Sample(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD21880 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V1A9021

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD21909-1MS, JD21909-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD21880
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 03/16/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD21880-1	**BD24 SEEP 031621**					
cis-1,2-Dichloroethene		1.3	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		7.5	1.0	0.53	ug/l	SW846 8260D
JD21880-2	**OPEN DITCH 001 031621**					
No hits reported in this sample.						
JD21880-3	**RW SUMP 031621**					
cis-1,2-Dichloroethene		10.6	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		9.2	1.0	0.79	ug/l	SW846 8260D

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD24 SEEP 031621		
Lab Sample ID:	JD21880-1	**Date Sampled:**	03/16/21
Matrix:	AQ - Water	**Date Received:**	03/17/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A208468.D	1	03/23/21 19:48	KC	n/a	n/a	V1A9021
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 031621		
Lab Sample ID:	JD21880-1	**Date Sampled:**	03/16/21
Matrix:	AQ - Water	**Date Received:**	03/17/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	7.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 031621		
Lab Sample ID:	JD21880-2	**Date Sampled:**	03/16/21
Matrix:	AQ - Water	**Date Received:**	03/17/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A208469.D	1	03/23/21 20:13	KC	n/a	n/a	V1A9021
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 031621		
Lab Sample ID:	JD21880-2	**Date Sampled:**	03/16/21
Matrix:	AQ - Water	**Date Received:**	03/17/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SUMP 031621		
Lab Sample ID:	JD21880-3	**Date Sampled:**	03/16/21
Matrix:	AQ - Water	**Date Received:**	03/17/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A208470.D	1	03/23/21 20:38	KC	n/a	n/a	V1A9021
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	1.2	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	10.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	1.9	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SUMP 031621		
Lab Sample ID:	JD21880-3	**Date Sampled:**	03/16/21
Matrix:	AQ - Water	**Date Received:**	03/17/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	9.2	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

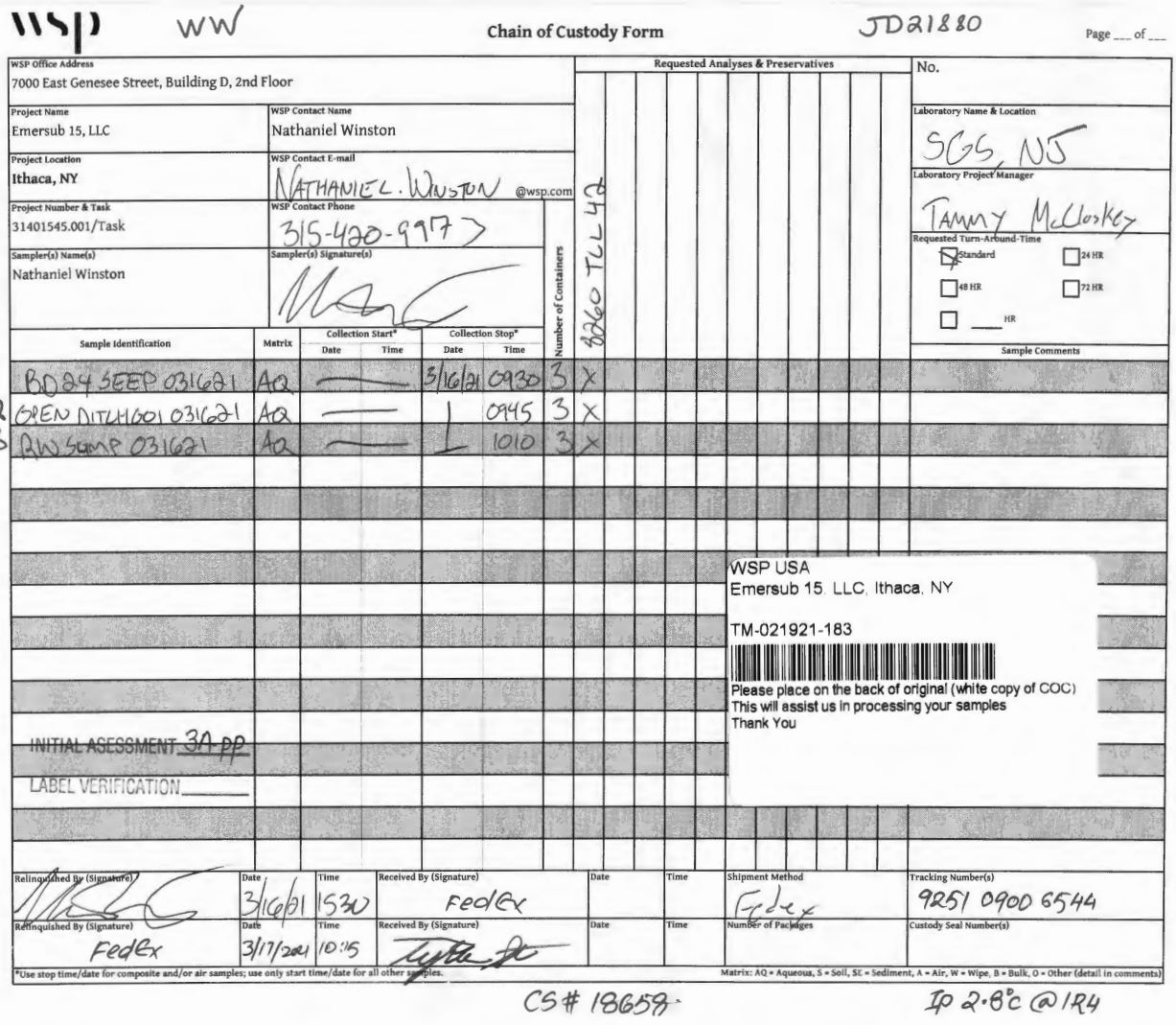
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



WSP WW

Chain of Custody Form JD21880

Page ___ of ___

WSP Office Address	7000 East Genesee Street, Building D, 2nd Floor
Project Name	Emersub 15, LLC
WSP Contact Name	Nathaniel Winston
Project Location	Ithaca, NY
WSP Contact E-mail	NATHANIEL.WINSTON@wsp.com
Project Number & Task	31401545.001/Task
WSP Contact Phone	315-420-9977
Sampler(s) Name(s)	Nathaniel Winston
Sampler(s) Signature(s)	
Laboratory Name & Location	SGS, NJ
Laboratory Project Manager	TAMMY McCloskey
Requested Turn-Around-Time	☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR

Requested Analyses & Preservatives: 8260 TCL 4Z

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers		Sample Comments
1	BD24 SEEP 031621	AQ	—	—	3/16/21	0930	3	X	V119
2	OPEN DITCH001 031621	AQ	—	—	1	0945	3	X	
3	RW SUMP 031621	AQ	—	—	1	1010	3	X	

INITIAL ASSESSMENT 3A PP

LABEL VERIFICATION ____

WSP USA
Emersub 15, LLC, Ithaca, NY

TM-021921-183

Please place on the back of original (white copy of COC)
This will assist us in processing your samples
Thank You

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	3/16/21	1530	FedEx			FedEx	9251 0900 6544
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
FedEx	3/17/2021	10:15					

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

CS# 18659

Ip 2.8°c @1R4

JD21880: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD21880 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 3/17/2021 10:15:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (1.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD21880: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD21880

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD21880-1	Collected: 16-MAR-21 09:30 By: NW			Received: 17-MAR-21	By: TS	
BD24 SEEP 031621						
JD21880-1	SW846 8260D	23-MAR-21 19:48	KC			V8260TCL42
JD21880-2	Collected: 16-MAR-21 09:45 By: NW			Received: 17-MAR-21	By: TS	
OPEN DITCH 001 031621						
JD21880-2	SW846 8260D	23-MAR-21 20:13	KC			V8260TCL42
JD21880-3	Collected: 16-MAR-21 10:10 By: NW			Received: 17-MAR-21	By: TS	
RW SUMP 031621						
JD21880-3	SW846 8260D	23-MAR-21 20:38	KC			V8260TCL42

SGS Internal Chain of Custody

Job Number: JD21880
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Received: 03/17/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD21880-1.1	Secured Storage	Krizhka Cuenta	03/23/21 11:50	Retrieve from Storage
JD21880-1.1	Krizhka Cuenta	GCMS1A	03/23/21 11:50	Load on Instrument
JD21880-1.1	GCMS1A	Krizhka Cuenta	03/24/21 08:21	Unload from Instrument
JD21880-1.1	Krizhka Cuenta	Secured Storage	03/24/21 08:21	Return to Storage
JD21880-2.1	Secured Storage	Krizhka Cuenta	03/23/21 14:43	Retrieve from Storage
JD21880-2.1	Krizhka Cuenta	GCMS1A	03/23/21 14:43	Load on Instrument
JD21880-2.1	GCMS1A	Krizhka Cuenta	03/24/21 08:21	Unload from Instrument
JD21880-2.1	Krizhka Cuenta	Secured Storage	03/24/21 08:21	Return to Storage
JD21880-3.1	Secured Storage	Krizhka Cuenta	03/23/21 14:43	Retrieve from Storage
JD21880-3.1	Krizhka Cuenta	GCMS1A	03/23/21 14:43	Load on Instrument
JD21880-3.1	GCMS1A	Krizhka Cuenta	03/24/21 08:21	Unload from Instrument
JD21880-3.1	Krizhka Cuenta	Secured Storage	03/24/21 08:21	Return to Storage

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001

SGS Job Number: JD24682

Sampling Date: 05/06/21

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: **16**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4

Table of Contents

SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD24682

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies:							
Organics ND = Not detected above the MDL							
JD24682-1	05/06/21	10:00	NW	05/07/21	AQ	Ground Water	BD24 SEEP 050621
JD24682-2	05/06/21	10:15	NW	05/07/21	AQ	Ground Water	OPEN DITCH 001 050621
JD24682-3	05/06/21	10:40	NW	05/07/21	AQ	Ground Water	RETAINING WALL SUMP 050621

Summary of Hits

Job Number: JD24682
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 05/06/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD24682-1	**BD24 SEEP 050621**					
cis-1,2-Dichloroethene		1.5	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		11.1	1.0	0.53	ug/l	SW846 8260D
JD24682-2	**OPEN DITCH 001 050621**					
Trichloroethene		0.53 J	1.0	0.53	ug/l	SW846 8260D
JD24682-3	**RETAINING WALL SUMP 050621**					
cis-1,2-Dichloroethene		7.3	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		6.3	1.0	0.79	ug/l	SW846 8260D

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD24 SEEP 050621		
Lab Sample ID:	JD24682-1	**Date Sampled:**	05/06/21
Matrix:	AQ - Ground Water	**Date Received:**	05/07/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A210418.D	1	05/14/21 06:55	KC	n/a	n/a	V1A9095
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 050621		
Lab Sample ID:	JD24682-1	**Date Sampled:**	05/06/21
Matrix:	AQ - Ground Water	**Date Received:**	05/07/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	11.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	95%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 050621		
Lab Sample ID:	JD24682-2	**Date Sampled:**	05/06/21
Matrix:	AQ - Ground Water	**Date Received:**	05/07/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A210419.D	1	05/14/21 07:19	KC	n/a	n/a	V1A9095
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 050621		
Lab Sample ID:	JD24682-2	**Date Sampled:**	05/06/21
Matrix:	AQ - Ground Water	**Date Received:**	05/07/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.53	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		85-118%
17060-07-0	1,2-Dichloroethane-D4	98%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RETAINING WALL SUMP 050621		
Lab Sample ID:	JD24682-3	**Date Sampled:**	05/06/21
Matrix:	AQ - Ground Water	**Date Received:**	05/07/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D164536.D	1	05/14/21 19:45	ED	n/a	n/a	V3D7003
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride [a]	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RETAINING WALL SUMP 050621		
Lab Sample ID:	JD24682-3	**Date Sampled:**	05/06/21
Matrix:	AQ - Ground Water	**Date Received:**	05/07/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	6.3	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		85-118%
17060-07-0	1,2-Dichloroethane-D4	93%		80-121%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

(a) Associated CCV outside of control limits low.

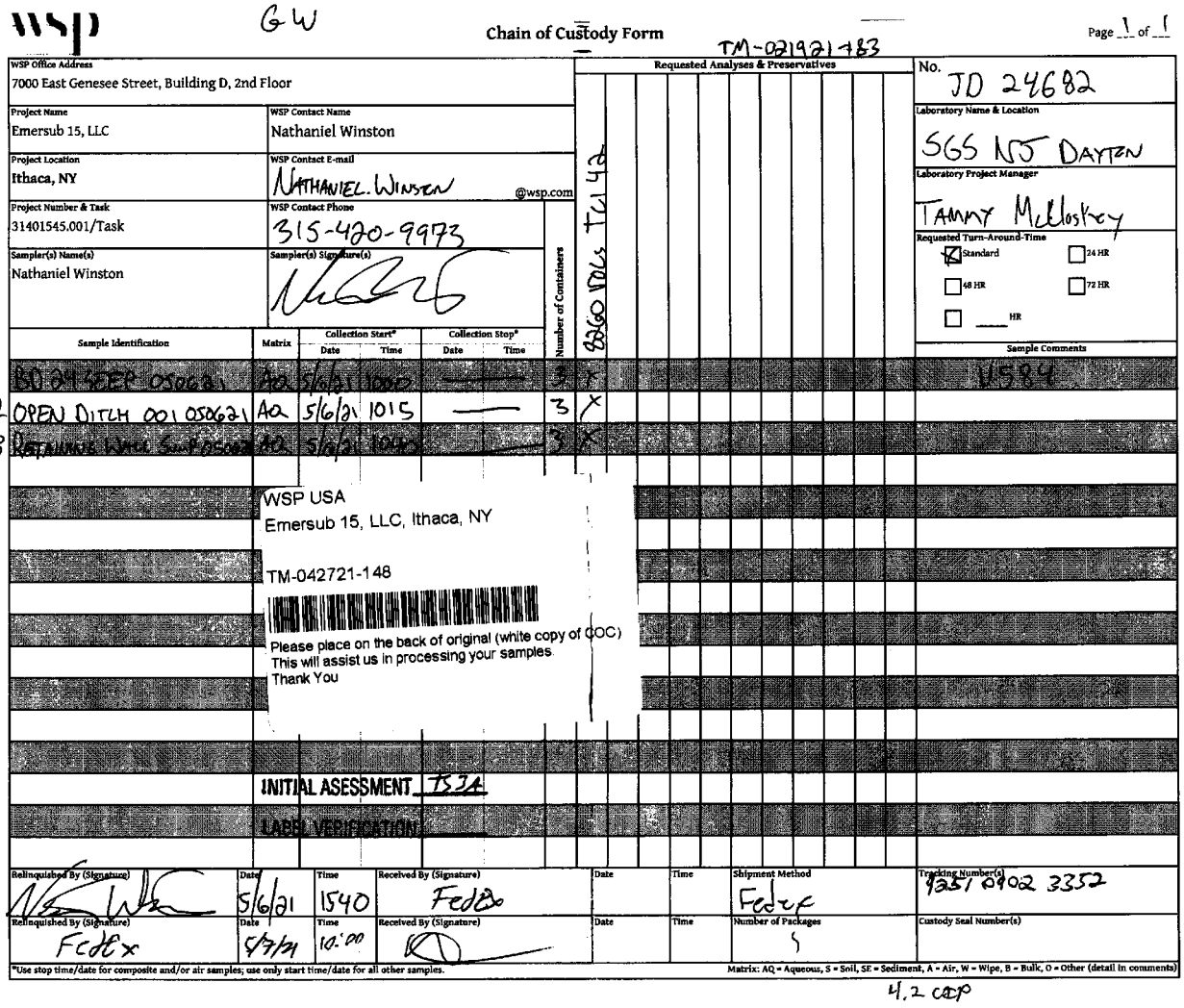
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



GW

Chain of Custody Form

TM-021921-183

Page 1 of 1

WSP Office Address: 7000 East Genesee Street, Building D, 2nd Floor

Project Name: Emersub 15, LLC

Project Location: Ithaca, NY

Project Number & Task: 31401545.001/Task

Sampler(s) Name(s): Nathaniel Winston

WSP Contact Name: Nathaniel Winston

WSP Contact E-mail: NATHANIEL.WINSTEN@wsp.com

WSP Contact Phone: 315-420-9973

Sampler(s) Signature(s):

Requested Analyses & Preservatives: 8260 TCL + TICs

No. JD 24682

Laboratory Name & Location: SGS NJ DAYTON

Laboratory Project Manager: TAMMY McCloskey

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers		Sample Comments
1	BROOK SEEP 050621	AQ	5/6/21	1000			3	X	W584
2	OPEN DITCH 001 050621	AQ	5/6/21	1015			3	X	
3	RETAINING WALL SEEP 050621	AQ	5/6/21	1042			3	X	

WSP USA
Emersub 15, LLC, Ithaca, NY

TM-042721-148

Please place on the back of original (white copy of COC)
This will assist us in processing your samples.
Thank You

INITIAL ASSESSMENT TSA

LABS VERIFICATION

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	5/6/21	1540	FedEx			FedEx	7957 0902 3352
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
FedEx	5/7/21	10:00				1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

4.2 COP

4.1

4

SGS Sample Receipt Summary

Job Number: JD24682 **Client:** WSP USA **Project:** EMERSUB 15, LLC, ITHACA, NY

Date / Time Received: 5/7/2021 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.2);

Cooler Temps (Corrected) °C: Cooler 1: (3.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD24682: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD24682

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD24682-1	Collected: 06-MAY-21 10:00 By: NW			Received: 07-MAY-21 By: MK		
BD24 SEEP 050621						
JD24682-1	SW846 8260D	14-MAY-21 06:55	KC			V8260TCL42
JD24682-2	Collected: 06-MAY-21 10:15 By: NW			Received: 07-MAY-21 By: MK		
OPEN DITCH 001 050621						
JD24682-2	SW846 8260D	14-MAY-21 07:19	KC			V8260TCL42
JD24682-3	Collected: 06-MAY-21 10:40 By: NW			Received: 07-MAY-21 By: MK		
RETAINING WALL SUMP 050621						
JD24682-3	SW846 8260D	14-MAY-21 19:45	ED			V8260TCL42

SGS Internal Chain of Custody

Job Number: JD24682
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Received: 05/07/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD24682-1.1	Secured Storage	Krizhka Cuenta	05/13/21 15:18	Retrieve from Storage
JD24682-1.1	Krizhka Cuenta	GCMS1A	05/13/21 15:18	Load on Instrument
JD24682-1.1	GCMS1A	Krizhka Cuenta	05/14/21 09:06	Unload from Instrument
JD24682-1.1	Krizhka Cuenta	Secured Storage	05/14/21 09:06	Return to Storage
JD24682-2.1	Secured Storage	Krizhka Cuenta	05/13/21 15:18	Retrieve from Storage
JD24682-2.1	Krizhka Cuenta	GCMS1A	05/13/21 15:18	Load on Instrument
JD24682-2.1	GCMS1A	Krizhka Cuenta	05/14/21 09:06	Unload from Instrument
JD24682-2.1	Krizhka Cuenta	Secured Storage	05/14/21 09:06	Return to Storage
JD24682-3.2	Secured Storage	Krizhka Cuenta	05/13/21 15:18	Retrieve from Storage
JD24682-3.2	Krizhka Cuenta	GCMS1A	05/13/21 15:18	Load on Instrument
JD24682-3.2	GCMS1A	Krizhka Cuenta	05/14/21 09:06	Unload from Instrument
JD24682-3.2	Krizhka Cuenta	Secured Storage	05/14/21 09:06	Return to Storage

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/TASK 05

SGS Job Number: JD27695

Sampling Date: 07/01/21

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 221

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5 6 7

Table of Contents

SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD27695

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JD27695-1	07/01/21	09:40	NW	07/02/21	AQ	Ground Water	BD24 SEEP 070121
JD27695-2	07/01/21	09:00	NW	07/02/21	AQ	Ground Water	BD 070121
JD27695-3	07/01/21	10:00	NW	07/02/21	AQ	Ground Water	OPEN DITCH 001 070121
JD27695-4	07/01/21	10:25	NW	07/02/21	AQ	Ground Water	BYPASS 070121
JD27695-5	07/01/21	10:40	NW	07/02/21	AQ	Ground Water	WB SEEPS 070121
JD27695-6	07/01/21	11:00	NW	07/02/21	AQ	Ground Water	OUTFALL 001 070121
JD27695-7	07/01/21	11:25	NW	07/02/21	AQ	Ground Water	WOODEN SLUICE 070121
JD27695-8	07/01/21	12:00	NW	07/02/21	AQ	Ground Water	BW SEEP 070121
JD27695-8D	07/01/21	12:00	NW	07/02/21	AQ	Water Dup/MSD	BW SEEP 070121-MSD
JD27695-8S	07/01/21	12:00	NW	07/02/21	AQ	Water Matrix Spike	BW SEEP 070121-MS
JD27695-9	07/01/21	13:00	NW	07/02/21	AQ	Equipment Blank	EB-070121
JD27695-10	07/01/21	13:00	NW	07/02/21	AQ	Trip Blank Water	TRIP BLANK

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD27695
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	7/13/2021 10:39:53 A

On 07/02/2021, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD27695 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V4B4567

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD27695-8MS, JD27695-8MSD were used as the QC samples indicated.
- JD27695-1 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-7 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-9 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-2 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-9 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-9 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-8 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-8 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-8 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-9 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-8 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-9 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-8 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-3 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-1 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-2 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-9 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-10 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-10 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-10 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-10 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-10 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-10 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-1 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-1 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-1 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-1 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V4B4567

- JD27695-2 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-8 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-2 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-2 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-2 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-3 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-3 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-3 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-5 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-3 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-3 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-4 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-4 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-4 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-4 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-5 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-7 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-5 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-5 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-5 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-4 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-7 for 1,2,4-Trichlorobenzene: Associated CCV outside of control limits high, sample was ND.
- JD27695-4 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-7 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD27695-5 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND.
- JD27695-7 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-7 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V4B4568

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD27524-1MS, JD27524-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JD27695-6 for 2-Butanone (MEK): Associated CCV outside of control limits high, sample was ND.
- JD27695-6 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD27695-6 for Bromoform: Associated CCV outside of control limits high, sample was ND.

Summary of Hits

Job Number: JD27695
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 07/01/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD27695-1	**BD24 SEEP 070121**					
cis-1,2-Dichloroethene		2.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		17.5	1.0	0.53	ug/l	SW846 8260D
JD27695-2	**BD 070121**					
cis-1,2-Dichloroethene		2.8	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		17.9	1.0	0.53	ug/l	SW846 8260D
JD27695-3	**OPEN DITCH 001 070121**					
Chloroform		0.88 J	1.0	0.50	ug/l	SW846 8260D
Trichloroethene		0.82 J	1.0	0.53	ug/l	SW846 8260D
JD27695-4	**BYPASS 070121**					
cis-1,2-Dichloroethene		0.82 J	1.0	0.51	ug/l	SW846 8260D
JD27695-5	**WB SEEPS 070121**					
Chloroform		0.59 J	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		135	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene		1.8	1.0	0.54	ug/l	SW846 8260D
Trichloroethene		20.5	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		12.2	1.0	0.79	ug/l	SW846 8260D
JD27695-6	**OUTFALL 001 070121**					
Bromodichloromethane		2.2	1.0	0.45	ug/l	SW846 8260D
Chloroform		7.9	1.0	0.50	ug/l	SW846 8260D
JD27695-7	**WOODEN SLUICE 070121**					
Bromodichloromethane		2.2	1.0	0.45	ug/l	SW846 8260D
Chloroform		7.7	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		4.8	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		2.4	1.0	0.53	ug/l	SW846 8260D
JD27695-8	**BW SEEP 070121**					
cis-1,2-Dichloroethene		1.0	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		0.94 J	1.0	0.79	ug/l	SW846 8260D

Summary of Hits

Job Number: JD27695
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 07/01/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD27695-9	**EB-070121**					
Chloroform		0.66 J	1.0	0.50	ug/l	SW846 8260D
JD27695-10	**TRIP BLANK**					
No hits reported in this sample.						

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	BD24 SEEP 070121		
Lab Sample ID:	JD27695-1	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105443.D	1	07/10/21 04:26	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 070121		
Lab Sample ID:	JD27695-1	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	17.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	113%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BD 070121		
Lab Sample ID:	JD27695-2	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105444.D	1	07/10/21 04:54	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD 070121		
Lab Sample ID:	JD27695-2	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	17.9	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		85-118%
17060-07-0	1,2-Dichloroethane-D4	112%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	OPEN DITCH 001 070121		
Lab Sample ID:	JD27695-3	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105445.D	1	07/10/21 05:23	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.88	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 070121		
Lab Sample ID:	JD27695-3	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.82	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	112%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BYPASS 070121		
Lab Sample ID:	JD27695-4	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105446.D	1	07/10/21 05:51	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.82	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 070121		
Lab Sample ID:	JD27695-4	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		85-118%
17060-07-0	1,2-Dichloroethane-D4	113%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WB SEEPS 070121		
Lab Sample ID:	JD27695-5	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105447.D	1	07/10/21 06:19	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.59	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	135	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.8	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 070121		
Lab Sample ID:	JD27695-5	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	20.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	12.2	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		85-118%
17060-07-0	1,2-Dichloroethane-D4	114%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	OUTFALL 001 070121		
Lab Sample ID:	JD27695-6	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105458.D	1	07/12/21 11:05	EH	n/a	n/a	V4B4568
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	2.2	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	7.9	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 070121		
Lab Sample ID:	JD27695-6	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		85-118%
17060-07-0	1,2-Dichloroethane-D4	111%		80-121%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WOODEN SLUICE 070121		
Lab Sample ID:	JD27695-7	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105449.D	1	07/10/21 07:16	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	2.2	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	7.7	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 070121		
Lab Sample ID:	JD27695-7	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	2.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		85-118%
17060-07-0	1,2-Dichloroethane-D4	116%		80-121%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BW SEEP 070121		
Lab Sample ID:	JD27695-8	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105432.D	1	07/09/21 23:15	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BW SEEP 070121		
Lab Sample ID:	JD27695-8	**Date Sampled:**	07/01/21
Matrix:	AQ - Ground Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	0.94	1.0	0.79	ug/l	J
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		85-118%
17060-07-0	1,2-Dichloroethane-D4	111%		80-121%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EB-070121		
Lab Sample ID:	JD27695-9	**Date Sampled:**	07/01/21
Matrix:	AQ - Equipment Blank	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105436.D	1	07/10/21 01:09	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.66	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-070121		
Lab Sample ID:	JD27695-9	**Date Sampled:**	07/01/21
Matrix:	AQ - Equipment Blank	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	108%		80-121%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD27695-10	**Date Sampled:**	07/01/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B105437.D	1	07/10/21 01:37	EH	n/a	n/a	V4B4567
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD27695-10	**Date Sampled:**	07/01/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/02/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene [a]	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		85-118%
17060-07-0	1,2-Dichloroethane-D4	109%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

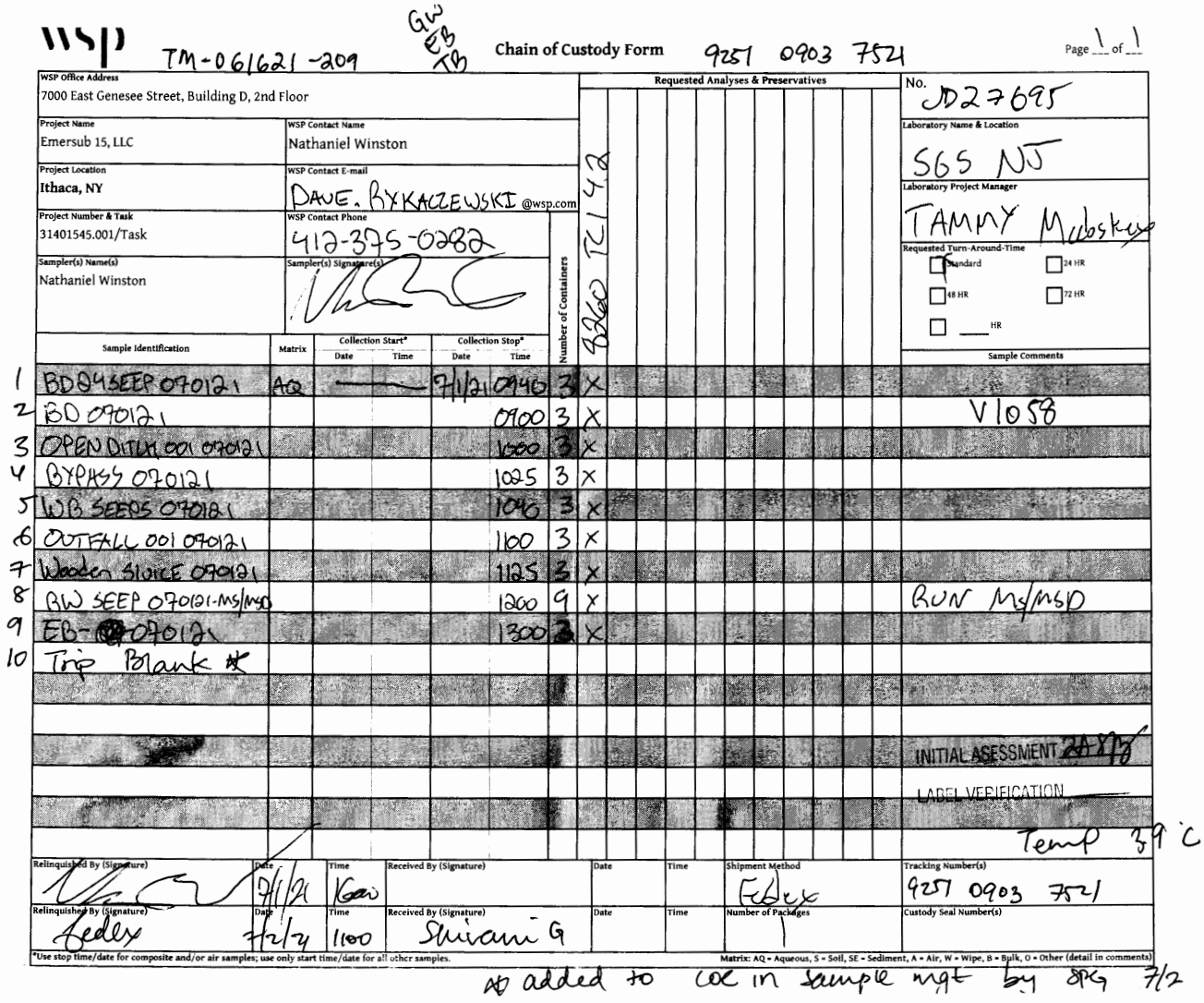
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



wsp TM-061621-209 GW EB TB **Chain of Custody Form** 9251 0903 7521 Page 1 of 1

WSP Office Address: 7000 East Genesee Street, Building D, 2nd Floor
Project Name: Emersub 15, LLC
WSP Contact Name: Nathaniel Winston
Project Location: Ithaca, NY
WSP Contact E-mail: DAVE.BYKACZEWSKI@wsp.com
Project Number & Task: 31401545.001/Task
WSP Contact Phone: 412-375-0282
Sampler(s) Name(s): Nathaniel Winston
Sampler(s) Signature(s):

Requested Analyses & Preservatives: 8260 TCL 42

No. JD27695
Laboratory Name & Location: SGS NJ
Laboratory Project Manager: TAMMY Mlodzinski
Requested Turn-Around-Time: Standard; 24 HR; 48 HR; 72 HR; ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers		Sample Comments
1	BD SEEP 070121	AQ			7/1/21	0940	3	X	
2	BD 070121					0900	3	X	VIOS8
3	OPEN DITCH 001 070121					1000	3	X	
4	BYPASS 070121					1025	3	X	
5	WB SEEPS 070121					1040	3	X	
6	OUTFALL 001 070121					1100	3	X	
7	Wooden Sluice 070121					1125	3	X	
8	BW SEEP 070121-MS/MSD					1200	9	X	RUN MS/MSD
9	EB-[redacted]070121					1300	3	X	
10	Trip Blank *								
									INITIAL ASESSMENT 7/8/21
									LABEL VERIFICATION
									Temp 3.9 °C

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	7/1/21	1600				FEDEX	9251 0903 7521
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
Fedex	7/2/21	1100	Shivani G				

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.
Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

* added to COC in sample mgt by SPG 7/2

JD27695: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD27695 **Client:** WSP **Project:** EPT, ITHACA, NY

Date / Time Received: 7/2/2021 11:00:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 9251 0903 7521

Cooler Temps (Raw Measured) °C: Cooler 1: (3.9);

Cooler Temps (Corrected) °C: Cooler 1: (3.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD27695

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD27695-1	Collected: 01-JUL-21 09:40 By: NW		Received: 02-JUL-21 By: SG			
BD24 SEEP 070121						
JD27695-1	SW846 8260D	10-JUL-21 04:26	EH			V8260TCL42
JD27695-2	Collected: 01-JUL-21 09:00 By: NW		Received: 02-JUL-21 By: SG			
BD 070121						
JD27695-2	SW846 8260D	10-JUL-21 04:54	EH			V8260TCL42
JD27695-3	Collected: 01-JUL-21 10:00 By: NW		Received: 02-JUL-21 By: SG			
OPEN DITCH 001 070121						
JD27695-3	SW846 8260D	10-JUL-21 05:23	EH			V8260TCL42
JD27695-4	Collected: 01-JUL-21 10:25 By: NW		Received: 02-JUL-21 By: SG			
BYPASS 070121						
JD27695-4	SW846 8260D	10-JUL-21 05:51	EH			V8260TCL42
JD27695-5	Collected: 01-JUL-21 10:40 By: NW		Received: 02-JUL-21 By: SG			
WB SEEPS 070121						
JD27695-5	SW846 8260D	10-JUL-21 06:19	EH			V8260TCL42
JD27695-6	Collected: 01-JUL-21 11:00 By: NW		Received: 02-JUL-21 By: SG			
OUTFALL 001 070121						
JD27695-6	SW846 8260D	12-JUL-21 11:05	EH			V8260TCL42
JD27695-7	Collected: 01-JUL-21 11:25 By: NW		Received: 02-JUL-21 By: SG			
WOODEN SLUICE 070121						
JD27695-7	SW846 8260D	10-JUL-21 07:16	EH			V8260TCL42
JD27695-8	Collected: 01-JUL-21 12:00 By: NW		Received: 02-JUL-21 By: SG			
BW SEEP 070121						
JD27695-8	SW846 8260D	09-JUL-21 23:15	EH			V8260TCL42

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD27695

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD27695-9	Collected: 01-JUL-21 13:00	By: NW	Received: 02-JUL-21	By: SG		
EB-070121						
JD27695-9	SW846 8260D	10-JUL-21 01:09	EH			V8260TCL42
JD27695-10	Collected: 01-JUL-21 13:00	By: NW	Received: 02-JUL-21	By: SG		
TRIP BLANK						
JD27695-10	SW846 8260D	10-JUL-21 01:37	EH			V8260TCL42

SGS Internal Chain of Custody

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Received: 07/02/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD27695-1.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-1.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-1.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-1.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-2.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-2.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-2.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-2.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-3.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-3.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-3.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-3.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-4.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-4.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-4.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-4.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-5.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-5.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-5.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-5.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-6.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-6.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-6.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-6.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-6.2	Secured Storage	Eddie Huang	07/12/21 10:52	Retrieve from Storage
JD27695-6.2	Eddie Huang	GCMS4B	07/12/21 10:52	Load on Instrument
JD27695-6.2	GCMS4B	Eddie Huang	07/13/21 08:49	Unload from Instrument
JD27695-6.2	Eddie Huang	Secured Storage	07/13/21 08:49	Return to Storage
JD27695-8.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-8.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-8.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-8.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-8.2	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-8.2	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-8.2	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-8.2	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage

SGS Internal Chain of Custody

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Received: 07/02/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD27695-8.5	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-8.5	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-8.5	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-8.5	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-9.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-9.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-9.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-9.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage
JD27695-10.1	Secured Storage	Eddie Huang	07/09/21 16:10	Retrieve from Storage
JD27695-10.1	Eddie Huang	GCMS4B	07/09/21 16:10	Load on Instrument
JD27695-10.1	GCMS4B	Eddie Huang	07/12/21 07:55	Unload from Instrument
JD27695-10.1	Eddie Huang	Secured Storage	07/12/21 07:55	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4567-MB	4B105431.D	1	07/09/21	EH	n/a	n/a	V4B4567

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-1, JD27695-2, JD27695-3, JD27695-4, JD27695-5, JD27695-7, JD27695-8, JD27695-9, JD27695-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4567-MB	4B105431.D	1	07/09/21	EH	n/a	n/a	V4B4567

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-1, JD27695-2, JD27695-3, JD27695-4, JD27695-5, JD27695-7, JD27695-8, JD27695-9, JD27695-10

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	109%	85-118%
17060-07-0	1,2-Dichloroethane-D4	110%	80-121%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4568-MB	4B105457.D	1	07/12/21	EH	n/a	n/a	V4B4568

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4568-MB	4B105457.D	1	07/12/21	EH	n/a	n/a	V4B4568

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-6

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	85-118%
17060-07-0	1,2-Dichloroethane-D4	109%	80-121%
2037-26-5	Toluene-D8	95%	80-120%
460-00-4	4-Bromofluorobenzene	94%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4567-BS	4B105429.D	1	07/09/21	EH	n/a	n/a	V4B4567

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-1, JD27695-2, JD27695-3, JD27695-4, JD27695-5, JD27695-7, JD27695-8, JD27695-9, JD27695-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	210	105	63-137
71-43-2	Benzene	50	51.0	102	78-117
75-27-4	Bromodichloromethane	50	58.5	117	83-123
75-25-2	Bromoform	50	65.7	131	80-140
74-83-9	Bromomethane	50	50.7	101	26-167
78-93-3	2-Butanone (MEK)	200	251	126	73-135
75-15-0	Carbon disulfide	50	44.7	89	60-131
56-23-5	Carbon tetrachloride	50	58.8	118	75-127
108-90-7	Chlorobenzene	50	54.7	109	83-115
75-00-3	Chloroethane	50	48.5	97	61-135
67-66-3	Chloroform	50	55.6	111	76-118
74-87-3	Chloromethane	50	44.6	89	46-144
110-82-7	Cyclohexane	50	50.3	101	67-128
96-12-8	1,2-Dibromo-3-chloropropane	50	62.3	125	75-135
124-48-1	Dibromochloromethane	50	61.3	123	84-128
106-93-4	1,2-Dibromoethane	50	55.3	111	82-129
95-50-1	1,2-Dichlorobenzene	50	55.6	111	85-117
541-73-1	1,3-Dichlorobenzene	50	55.2	110	83-116
106-46-7	1,4-Dichlorobenzene	50	54.1	108	82-115
75-71-8	Dichlorodifluoromethane	50	54.5	109	49-153
75-34-3	1,1-Dichloroethane	50	52.7	105	75-122
107-06-2	1,2-Dichloroethane	50	56.0	112	74-116
75-35-4	1,1-Dichloroethene	50	51.3	103	68-129
156-59-2	cis-1,2-Dichloroethene	50	52.5	105	78-120
156-60-5	trans-1,2-Dichloroethene	50	50.8	102	74-125
78-87-5	1,2-Dichloropropane	50	49.2	98	80-120
10061-01-5	cis-1,3-Dichloropropene	50	55.8	112	84-123
10061-02-6	trans-1,3-Dichloropropene	50	58.3	117	84-124
100-41-4	Ethylbenzene	50	53.0	106	80-115
76-13-1	Freon 113	50	50.3	101	66-136
591-78-6	2-Hexanone	200	221	111	74-132
98-82-8	Isopropylbenzene	50	54.0	108	79-120
79-20-9	Methyl Acetate	50	48.5	97	65-133
108-87-2	Methylcyclohexane	50	49.0	98	67-136
1634-04-4	Methyl Tert Butyl Ether	50	52.6	105	77-124
108-10-1	4-Methyl-2-pentanone(MIBK)	200	213	107	77-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4567-BS	4B105429.D	1	07/09/21	EH	n/a	n/a	V4B4567

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-1, JD27695-2, JD27695-3, JD27695-4, JD27695-5, JD27695-7, JD27695-8, JD27695-9, JD27695-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	51.5	103	74-125
100-42-5	Styrene	50	56.8	114	83-122
79-34-5	1,1,2,2-Tetrachloroethane	50	51.8	104	78-122
127-18-4	Tetrachloroethene	50	55.5	111	75-125
108-88-3	Toluene	50	51.5	103	80-115
120-82-1	1,2,4-Trichlorobenzene	50	60.7	121	77-137
71-55-6	1,1,1-Trichloroethane	50	57.3	115	77-124
79-00-5	1,1,2-Trichloroethane	50	55.1	110	83-118
79-01-6	Trichloroethene	50	53.8	108	80-123
75-69-4	Trichlorofluoromethane	50	60.4	121	71-134
75-01-4	Vinyl chloride	50	47.8	96	56-138
1330-20-7	Xylene (total)	150	162	108	81-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	111%	85-118%
17060-07-0	1,2-Dichloroethane-D4	108%	80-121%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4568-BS	4B105455.D	1	07/12/21	EH	n/a	n/a	V4B4568

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	234	117	63-137
71-43-2	Benzene	50	51.0	102	78-117
75-27-4	Bromodichloromethane	50	58.2	116	83-123
75-25-2	Bromoform	50	66.1	132	80-140
74-83-9	Bromomethane	50	49.6	99	26-167
78-93-3	2-Butanone (MEK)	200	256	128	73-135
75-15-0	Carbon disulfide	50	44.6	89	60-131
56-23-5	Carbon tetrachloride	50	58.9	118	75-127
108-90-7	Chlorobenzene	50	54.7	109	83-115
75-00-3	Chloroethane	50	47.0	94	61-135
67-66-3	Chloroform	50	54.8	110	76-118
74-87-3	Chloromethane	50	42.5	85	46-144
110-82-7	Cyclohexane	50	48.4	97	67-128
96-12-8	1,2-Dibromo-3-chloropropane	50	62.1	124	75-135
124-48-1	Dibromochloromethane	50	61.4	123	84-128
106-93-4	1,2-Dibromoethane	50	55.7	111	82-129
95-50-1	1,2-Dichlorobenzene	50	54.9	110	85-117
541-73-1	1,3-Dichlorobenzene	50	54.3	109	83-116
106-46-7	1,4-Dichlorobenzene	50	53.5	107	82-115
75-71-8	Dichlorodifluoromethane	50	52.9	106	49-153
75-34-3	1,1-Dichloroethane	50	52.3	105	75-122
107-06-2	1,2-Dichloroethane	50	56.8	114	74-116
75-35-4	1,1-Dichloroethene	50	51.3	103	68-129
156-59-2	cis-1,2-Dichloroethene	50	53.3	107	78-120
156-60-5	trans-1,2-Dichloroethene	50	50.6	101	74-125
78-87-5	1,2-Dichloropropane	50	49.1	98	80-120
10061-01-5	cis-1,3-Dichloropropene	50	57.4	115	84-123
10061-02-6	trans-1,3-Dichloropropene	50	59.1	118	84-124
100-41-4	Ethylbenzene	50	53.0	106	80-115
76-13-1	Freon 113	50	49.3	99	66-136
591-78-6	2-Hexanone	200	222	111	74-132
98-82-8	Isopropylbenzene	50	54.6	109	79-120
79-20-9	Methyl Acetate	50	46.6	93	65-133
108-87-2	Methylcyclohexane	50	49.1	98	67-136
1634-04-4	Methyl Tert Butyl Ether	50	52.0	104	77-124
108-10-1	4-Methyl-2-pentanone(MIBK)	200	212	106	77-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B4568-BS	4B105455.D	1	07/12/21	EH	n/a	n/a	V4B4568

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	49.8	100	74-125
100-42-5	Styrene	50	56.4	113	83-122
79-34-5	1,1,2,2-Tetrachloroethane	50	50.7	101	78-122
127-18-4	Tetrachloroethene	50	53.2	106	75-125
108-88-3	Toluene	50	51.0	102	80-115
120-82-1	1,2,4-Trichlorobenzene	50	59.4	119	77-137
71-55-6	1,1,1-Trichloroethane	50	57.5	115	77-124
79-00-5	1,1,2-Trichloroethane	50	53.7	107	83-118
79-01-6	Trichloroethene	50	54.0	108	80-123
75-69-4	Trichlorofluoromethane	50	59.9	120	71-134
75-01-4	Vinyl chloride	50	46.4	93	56-138
1330-20-7	Xylene (total)	150	162	108	81-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	85-118%
17060-07-0	1,2-Dichloroethane-D4	109%	80-121%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	94%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD27695-8MS	4B105433.D	1	07/09/21	EH	n/a	n/a	V4B4567
JD27695-8MSD	4B105434.D	1	07/10/21	EH	n/a	n/a	V4B4567
JD27695-8	4B105432.D	1	07/09/21	EH	n/a	n/a	V4B4567

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-1, JD27695-2, JD27695-3, JD27695-4, JD27695-5, JD27695-7, JD27695-8, JD27695-9, JD27695-10

CAS No.	Compound	JD27695-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	222	111	200	212	106	5	52-133/18
71-43-2	Benzene	ND		50	50.2	100	50	49.6	99	1	55-129/11
75-27-4	Bromodichloromethane	ND		50	55.6	111	50	55.0	110	1	74-123/11
75-25-2	Bromoform	ND		50	63.3	127	50	59.2	118	7	69-135/12
74-83-9	Bromomethane	ND		50	49.7	99	50	51.5	103	4	11-167/43
78-93-3	2-Butanone (MEK)	ND		200	261	131	200	260	130	0	64-131/15
75-15-0	Carbon disulfide	ND		50	39.8	80	50	38.9	78	2	54-137/15
56-23-5	Carbon tetrachloride	ND		50	61.0	122	50	59.6	119	2	68-132/11
108-90-7	Chlorobenzene	ND		50	54.2	108	50	53.1	106	2	71-119/10
75-00-3	Chloroethane	ND		50	48.4	97	50	49.6	99	2	50-146/18
67-66-3	Chloroform	ND		50	53.2	106	50	52.1	104	2	67-120/11
74-87-3	Chloromethane	ND		50	44.8	90	50	48.2	96	7	42-146/17
110-82-7	Cyclohexane	ND		50	54.5	109	50	54.9	110	1	56-147/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	64.5	129	50	60.7	121	6	65-130/15
124-48-1	Dibromochloromethane	ND		50	59.0	118	50	56.9	114	4	74-125/10
106-93-4	1,2-Dibromoethane	ND		50	55.0	110	50	52.9	106	4	74-125/9
95-50-1	1,2-Dichlorobenzene	ND		50	55.4	111	50	53.7	107	3	73-117/10
541-73-1	1,3-Dichlorobenzene	ND		50	54.8	110	50	52.9	106	4	73-117/10
106-46-7	1,4-Dichlorobenzene	ND		50	52.8	106	50	52.0	104	2	70-117/10
75-71-8	Dichlorodifluoromethane	ND		50	56.2	112	50	57.7	115	3	46-169/17
75-34-3	1,1-Dichloroethane	ND		50	51.6	103	50	50.9	102	1	66-124/13
107-06-2	1,2-Dichloroethane	ND		50	52.8	106	50	52.0	104	2	66-115/10
75-35-4	1,1-Dichloroethene	ND		50	51.0	102	50	49.6	99	3	60-136/15
156-59-2	cis-1,2-Dichloroethene	1.0		50	52.3	103	50	51.7	101	1	55-133/12
156-60-5	trans-1,2-Dichloroethene	ND		50	50.0	100	50	48.4	97	3	67-127/13
78-87-5	1,2-Dichloropropane	ND		50	48.0	96	50	48.1	96	0	72-120/11
10061-01-5	cis-1,3-Dichloropropene	ND		50	53.1	106	50	54.0	108	2	75-123/12
10061-02-6	trans-1,3-Dichloropropene	ND		50	55.2	110	50	54.1	108	2	73-122/11
100-41-4	Ethylbenzene	ND		50	54.2	108	50	52.9	106	2	44-136/10
76-13-1	Freon 113	ND		50	50.6	101	50	51.5	103	2	61-148/15
591-78-6	2-Hexanone	ND		200	251	126	200	231	116	8	64-129/13
98-82-8	Isopropylbenzene	ND		50	56.1	112	50	55.0	110	2	71-122/11
79-20-9	Methyl Acetate	ND		50	44.0	88	50	44.1	88	0	55-127/17
108-87-2	Methylcyclohexane	ND		50	52.6	105	50	53.7	107	2	58-148/13
1634-04-4	Methyl Tert Butyl Ether	ND		50	50.9	102	50	50.4	101	1	64-122/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	237	119	200	227	114	4	68-128/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD27695-8MS	4B105433.D	1	07/09/21	EH	n/a	n/a	V4B4567
JD27695-8MSD	4B105434.D	1	07/10/21	EH	n/a	n/a	V4B4567
JD27695-8	4B105432.D	1	07/09/21	EH	n/a	n/a	V4B4567

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-1, JD27695-2, JD27695-3, JD27695-4, JD27695-5, JD27695-7, JD27695-8, JD27695-9, JD27695-10

CAS No.	Compound	JD27695-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		50	49.1	98	50	48.2	96	2	65-126/13
100-42-5	Styrene	ND		50	55.3	111	50	56.0	112	1	73-124/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	52.6	105	50	50.0	100	5	68-120/15
127-18-4	Tetrachloroethene	ND		50	55.8	112	50	54.6	109	2	61-134/11
108-88-3	Toluene	ND		50	51.9	104	50	51.7	103	0	54-130/11
120-82-1	1,2,4-Trichlorobenzene	ND		50	59.0	118	50	58.8	118	0	67-134/14
71-55-6	1,1,1-Trichloroethane	ND		50	58.6	117	50	58.1	116	1	66-130/12
79-00-5	1,1,2-Trichloroethane	ND		50	54.1	108	50	52.2	104	4	73-117/11
79-01-6	Trichloroethene	ND		50	53.7	107	50	52.6	105	2	56-139/11
75-69-4	Trichlorofluoromethane	ND		50	66.0	132	50	65.2	130	1	63-150/16
75-01-4	Vinyl chloride	0.94	J	50	51.4	101	50	55.4	109	7	48-148/17
1330-20-7	Xylene (total)	ND		150	164	109	150	161	107	2	46-138/10

CAS No.	Surrogate Recoveries	MS	MSD	JD27695-8	Limits
1868-53-7	Dibromofluoromethane	108%	108%	108%	85-118%
17060-07-0	1,2-Dichloroethane-D4	108%	103%	111%	80-121%
2037-26-5	Toluene-D8	98%	99%	95%	80-120%
460-00-4	4-Bromofluorobenzene	98%	98%	97%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD27524-1MS	4B105466.D	1	07/12/21	EH	n/a	n/a	V4B4568
JD27524-1MSD	4B105467.D	1	07/12/21	EH	n/a	n/a	V4B4568
JD27524-1	4B105462.D	1	07/12/21	EH	n/a	n/a	V4B4568

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-6

CAS No.	Compound	JD27524-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10 U		200	190	95	200	187	94	2	52-133/18
71-43-2	Benzene	0.50 U		50	50.9	102	50	49.4	99	3	55-129/11
75-27-4	Bromodichloromethane	1.0 U		50	57.1	114	50	54.6	109	4	74-123/11
75-25-2	Bromoform	1.0 U		50	61.6	123	50	58.5	117	5	69-135/12
74-83-9	Bromomethane	2.0 U		50	52.3	105	50	54.3	109	4	11-167/43
78-93-3	2-Butanone (MEK)	10 U		200	235	118	200	236	118	0	64-131/15
75-15-0	Carbon disulfide	2.0 U		50	46.6	93	50	45.6	91	2	54-137/15
56-23-5	Carbon tetrachloride	1.0 U		50	62.7	125	50	60.2	120	4	68-132/11
108-90-7	Chlorobenzene	1.0 U		50	54.5	109	50	52.5	105	4	71-119/10
75-00-3	Chloroethane	1.0 U		50	51.0	102	50	53.0	106	4	50-146/18
67-66-3	Chloroform	1.0 U		50	55.6	111	50	54.1	108	3	67-120/11
74-87-3	Chloromethane	1.0 U		50	45.2	90	50	51.9	104	14	42-146/17
110-82-7	Cyclohexane	5.0 U		50	54.5	109	50	55.8	112	2	56-147/14
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		50	56.2	112	50	57.4	115	2	65-130/15
124-48-1	Dibromochloromethane	1.0 U		50	58.6	117	50	56.3	113	4	74-125/10
106-93-4	1,2-Dibromoethane	1.0 U		50	53.7	107	50	51.7	103	4	74-125/9
95-50-1	1,2-Dichlorobenzene	1.0 U		50	53.1	106	50	52.4	105	1	73-117/10
541-73-1	1,3-Dichlorobenzene	1.0 U		50	53.0	106	50	52.5	105	1	73-117/10
106-46-7	1,4-Dichlorobenzene	1.0 U		50	51.7	103	50	51.5	103	0	70-117/10
75-71-8	Dichlorodifluoromethane	2.0 U		50	60.1	120	50	62.7	125	4	46-169/17
75-34-3	1,1-Dichloroethane	1.0 U		50	54.2	108	50	52.0	104	4	66-124/13
107-06-2	1,2-Dichloroethane	1.0 U		50	55.0	110	50	52.4	105	5	66-115/10
75-35-4	1,1-Dichloroethene	1.0 U		50	55.7	111	50	53.9	108	3	60-136/15
156-59-2	cis-1,2-Dichloroethene	2.5		50	55.5	106	50	55.1	105	1	55-133/12
156-60-5	trans-1,2-Dichloroethene	1.0 U		50	53.0	106	50	51.1	102	4	67-127/13
78-87-5	1,2-Dichloropropane	1.0 U		50	48.6	97	50	47.5	95	2	72-120/11
10061-01-5	cis-1,3-Dichloropropene	1.0 U		50	55.8	112	50	55.1	110	1	75-123/12
10061-02-6	trans-1,3-Dichloropropene	1.0 U		50	58.4	117	50	56.2	112	4	73-122/11
100-41-4	Ethylbenzene	1.0 U		50	54.1	108	50	51.9	104	4	44-136/10
76-13-1	Freon 113	5.0 U		50	55.2	110	50	53.3	107	4	61-148/15
591-78-6	2-Hexanone	5.0 U		200	207	104	200	198	99	4	64-129/13
98-82-8	Isopropylbenzene	1.0 U		50	56.1	112	50	53.1	106	5	71-122/11
79-20-9	Methyl Acetate	5.0 U		50	46.0	92	50	44.9	90	2	55-127/17
108-87-2	Methylcyclohexane	5.0 U		50	54.3	109	50	51.5	103	5	58-148/13
1634-04-4	Methyl Tert Butyl Ether	1.0 U		50	50.9	102	50	50.5	101	1	64-122/11
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		200	203	102	200	197	99	3	68-128/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD27524-1MS	4B105466.D	1	07/12/21	EH	n/a	n/a	V4B4568
JD27524-1MSD	4B105467.D	1	07/12/21	EH	n/a	n/a	V4B4568
JD27524-1	4B105462.D	1	07/12/21	EH	n/a	n/a	V4B4568

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD27695-6

CAS No.	Compound	JD27524-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	2.0 U		50	51.4	103	50	49.1	98	5	65-126/13
100-42-5	Styrene	1.0 U		50	55.3	111	50	53.4	107	3	73-124/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		50	48.5	97	50	48.9	98	1	68-120/15
127-18-4	Tetrachloroethene	1.0 U		50	55.5	111	50	53.5	107	4	61-134/11
108-88-3	Toluene	1.0 U		50	52.3	105	50	50.0	100	4	54-130/11
120-82-1	1,2,4-Trichlorobenzene	1.0 U		50	55.7	111	50	55.7	111	0	67-134/14
71-55-6	1,1,1-Trichloroethane	1.0 U		50	60.0	120	50	57.9	116	4	66-130/12
79-00-5	1,1,2-Trichloroethane	1.0 U		50	53.1	106	50	50.5	101	5	73-117/11
79-01-6	Trichloroethene	3.1		50	59.2	112	50	56.6	107	4	56-139/11
75-69-4	Trichlorofluoromethane	2.0 U		50	67.0	134	50	68.0	136	1	63-150/16
75-01-4	Vinyl chloride	1.0 U		50	50.5	101	50	55.6	111	10	48-148/17
1330-20-7	Xylene (total)	1.0 U		150	164	109	150	156	104	5	46-138/10

CAS No.	Surrogate Recoveries	MS	MSD	JD27524-1	Limits
1868-53-7	Dibromofluoromethane	103%	104%	102%	85-118%
17060-07-0	1,2-Dichloroethane-D4	108%	105%	106%	80-121%
2037-26-5	Toluene-D8	97%	95%	92%	80-120%
460-00-4	4-Bromofluorobenzene	93%	95%	94%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-BFB
Lab File ID: 4B104805.D
Instrument ID: GCMS4B
Injection Date: 06/16/21
Injection Time: 17:22

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	22690	18.0		Pass
75	30.0 - 60.0% of mass 95	58994	46.7		Pass
95	Base peak, 100% relative abundance	126234	100.0		Pass
96	5.0 - 9.0% of mass 95	8207	6.50		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	132154	104.7		Pass
175	5.0 - 9.0% of mass 174	10592	8.39	(8.01) [a]	Pass
176	95.0 - 101.0% of mass 174	127026	100.6	(96.1) [a]	Pass
177	5.0 - 9.0% of mass 176	9088	7.20	(7.15) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B4538-IC4538	4B104806.D	06/16/21	17:57	00:35	Initial cal 0.2
V4B4538-IC4538	4B104807.D	06/16/21	18:25	01:03	Initial cal 0.5
V4B4538-IC4538	4B104808.D	06/16/21	18:53	01:31	Initial cal 1
V4B4538-IC4538	4B104809.D	06/16/21	19:21	01:59	Initial cal 2
V4B4538-IC4538	4B104810.D	06/16/21	19:49	02:27	Initial cal 4
V4B4538-IC4538	4B104811.D	06/16/21	20:17	02:55	Initial cal 8
V4B4538-IC4538	4B104812.D	06/16/21	20:46	03:24	Initial cal 20
V4B4538-ICC4538	4B104813.D	06/16/21	21:14	03:52	Initial cal 50
V4B4538-IC4538	4B104814.D	06/16/21	21:42	04:20	Initial cal 100
V4B4538-IC4538	4B104815.D	06/16/21	22:10	04:48	Initial cal 200
V4B4538-ICV4538	4B104818.D	06/16/21	23:33	06:11	Initial cal verification 50
V4B4538-ICV4538	4B104819.D	06/17/21	00:01	06:39	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4567-BFB
Lab File ID: 4B105427.D
Instrument ID: GCMS4B
Injection Date: 07/09/21
Injection Time: 20:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	24933	18.6		Pass
75	30.0 - 60.0% of mass 95	67736	50.4		Pass
95	Base peak, 100% relative abundance	134349	100.0		Pass
96	5.0 - 9.0% of mass 95	10130	7.54		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	137384	102.3		Pass
175	5.0 - 9.0% of mass 174	11378	8.47	(8.28) [a]	Pass
176	95.0 - 101.0% of mass 174	134307	100.0	(97.8) [a]	Pass
177	5.0 - 9.0% of mass 176	9325	6.94	(6.94) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B4567-CC4538	4B105427.D	07/09/21	20:53	00:00	Continuing cal 50
V4B4567-BS	4B105429.D	07/09/21	21:49	00:56	Blank Spike
V4B4567-MB	4B105431.D	07/09/21	22:47	01:54	Method Blank
JD27695-8	4B105432.D	07/09/21	23:15	02:22	BW SEEP 070121
JD27695-8MS	4B105433.D	07/09/21	23:44	02:51	Matrix Spike
JD27695-8MSD	4B105434.D	07/10/21	00:12	03:19	Matrix Spike Duplicate
JD27695-9	4B105436.D	07/10/21	01:09	04:16	EB-070121
JD27695-10	4B105437.D	07/10/21	01:37	04:44	TRIP BLANK
ZZZZZZ	4B105438.D	07/10/21	02:05	05:12	(unrelated sample)
ZZZZZZ	4B105439.D	07/10/21	02:33	05:40	(unrelated sample)
ZZZZZZ	4B105440.D	07/10/21	03:02	06:09	(unrelated sample)
ZZZZZZ	4B105441.D	07/10/21	03:30	06:37	(unrelated sample)
ZZZZZZ	4B105442.D	07/10/21	03:58	07:05	(unrelated sample)
JD27695-1	4B105443.D	07/10/21	04:26	07:33	BD24 SEEP 070121
JD27695-2	4B105444.D	07/10/21	04:54	08:01	BD 070121
JD27695-3	4B105445.D	07/10/21	05:23	08:30	OPEN DITCH 001 070121
JD27695-4	4B105446.D	07/10/21	05:51	08:58	BYPASS 070121
JD27695-5	4B105447.D	07/10/21	06:19	09:26	WB SEEPS 070121
JD27695-7	4B105449.D	07/10/21	07:16	10:23	WOODEN SLUICE 070121
ZZZZZZ	4B105450.D	07/10/21	07:44	10:51	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4568-BFB
Lab File ID: 4B105453.D
Instrument ID: GCMS4B
Injection Date: 07/12/21
Injection Time: 08:44

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	24365	18.6		Pass
75	30.0 - 60.0% of mass 95	64981	49.7		Pass
95	Base peak, 100% relative abundance	130757	100.0		Pass
96	5.0 - 9.0% of mass 95	8993	6.88		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	139688	106.8		Pass
175	5.0 - 9.0% of mass 174	12167	9.31	(8.71) [a]	Pass
176	95.0 - 101.0% of mass 174	137389	105.1	(98.4) [a]	Pass
177	5.0 - 9.0% of mass 176	9031	6.91	(6.57) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B4568-CC4538	4B105453.D	07/12/21	08:44	00:00	Continuing cal 20
V4B4568-BS	4B105455.D	07/12/21	09:41	00:57	Blank Spike
V4B4568-MB	4B105457.D	07/12/21	10:37	01:53	Method Blank
JD27695-6	4B105458.D	07/12/21	11:05	02:21	OUTFALL 001 070121
ZZZZZZ	4B105459.D	07/12/21	11:34	02:50	(unrelated sample)
ZZZZZZ	4B105460.D	07/12/21	12:02	03:18	(unrelated sample)
ZZZZZZ	4B105461.D	07/12/21	12:31	03:47	(unrelated sample)
JD27524-1	4B105462.D	07/12/21	12:59	04:15	(used for QC only; not part of job JD27695)
ZZZZZZ	4B105463.D	07/12/21	13:28	04:44	(unrelated sample)
ZZZZZZ	4B105464.D	07/12/21	13:56	05:12	(unrelated sample)
ZZZZZZ	4B105465.D	07/12/21	14:26	05:42	(unrelated sample)
JD27524-1MS	4B105466.D	07/12/21	14:54	06:10	Matrix Spike
JD27524-1MSD	4B105467.D	07/12/21	15:23	06:39	Matrix Spike Duplicate
ZZZZZZ	4B105469.D	07/12/21	16:20	07:36	(unrelated sample)
ZZZZZZ	4B105470.D	07/12/21	16:49	08:05	(unrelated sample)
ZZZZZZ	4B105471.D	07/12/21	17:18	08:34	(unrelated sample)
ZZZZZZ	4B105472.D	07/12/21	17:46	09:02	(unrelated sample)
ZZZZZZ	4B105473.D	07/12/21	18:14	09:30	(unrelated sample)
ZZZZZZ	4B105474.D	07/12/21	18:43	09:59	(unrelated sample)
ZZZZZZ	4B105475.D	07/12/21	19:12	10:28	(unrelated sample)
V4B4568-ECC4538	4B105476.D	07/12/21	19:40	10:56	Ending cal 50

Internal Standard Area Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Check Std:	V4B4567-CC4538	**Injection Date:**	07/09/21
Lab File ID:	4B105427.D	**Injection Time:**	20:53
Instrument ID:	GCMS4B	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	179662	6.45	360715	8.45	450867	9.31	462699	12.49	339908	15.06
Upper Limit [a]	359324	6.95	721430	8.95	901734	9.81	925398	12.99	679816	15.56
Lower Limit [b]	89831	5.95	180358	7.95	225434	8.81	231350	11.99	169954	14.56

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4B4567-BS	175808	6.44	363183	8.45	460404	9.31	469417	12.49	342735	15.06
V4B4567-MB	203839	6.45	373260	8.45	473793	9.31	498602	12.49	370427	15.07
JD27695-8	210284	6.44	368793	8.45	464777	9.31	492204	12.49	362754	15.07
JD27695-8MS	212412	6.47	361267	8.45	451773	9.31	458795	12.49	339985	15.06
JD27695-8MSD	204324	6.47	368921	8.45	462815	9.31	475719	12.49	343383	15.06
JD27695-9	173952	6.47	379061	8.45	469689	9.31	486942	12.49	360276	15.07
JD27695-10	171854	6.46	362572	8.45	452273	9.31	463624	12.49	347788	15.07
ZZZZZZ	166314	6.46	356892	8.45	448823	9.31	451879	12.49	347644	15.07
ZZZZZZ	164077	6.45	353786	8.45	436975	9.31	463002	12.49	350042	15.07
ZZZZZZ	165255	6.46	352413	8.45	439294	9.31	451948	12.49	338351	15.07
ZZZZZZ	180514	6.47	348656	8.45	433384	9.31	439161	12.49	332857	15.07
ZZZZZZ	174466	6.47	341106	8.45	426567	9.31	438482	12.49	328256	15.06
JD27695-1	165850	6.46	341269	8.45	421327	9.31	434498	12.49	329074	15.07
JD27695-2	169482	6.44	333913	8.45	418075	9.31	427788	12.49	327709	15.07
JD27695-3	167144	6.47	341125	8.45	424836	9.31	434638	12.49	329347	15.07
JD27695-4	161795	6.46	336779	8.45	422447	9.31	433294	12.49	325921	15.07
JD27695-5	159360	6.44	332086	8.45	424190	9.31	434475	12.49	325751	15.07
JD27695-7	171664	6.47	331366	8.45	416214	9.31	432161	12.49	323620	15.07
ZZZZZZ	167192	6.46	329815	8.45	420352	9.31	432804	12.49	322996	15.07

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Check Std:	V4B4568-CC4538	**Injection Date:**	07/12/21
Lab File ID:	4B105453.D	**Injection Time:**	08:44
Instrument ID:	GCMS4B	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	180684	6.46	355899	8.45	444286	9.31	459741	12.49	349626	15.06
Upper Limit [a]	361368	6.96	711798	8.95	888572	9.81	919482	12.99	699252	15.56
Lower Limit [b]	90342	5.96	177950	7.95	222143	8.81	229871	11.99	174813	14.56

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4B4568-BS	165053	6.46	363963	8.45	456139	9.31	467937	12.49	351340	15.06
V4B4568-MB	191844	6.45	390371	8.45	489610	9.31	502132	12.49	373234	15.07
JD27695-6	272046	6.47	513237	8.45	628705	9.31	634911	12.49	448037	15.06
ZZZZZZ	192556	6.46	372862	8.45	467812	9.31	479777	12.49	362273	15.06
ZZZZZZ	167744	6.45	373966	8.45	468634	9.31	484942	12.49	355074	15.06
ZZZZZZ	187761	6.46	400923	8.45	503762	9.31	503746	12.49	373121	15.06
JD27524-1	191020	6.44	417253	8.45	521227	9.31	542683	12.49	395212	15.07
ZZZZZZ	185587	6.45	403464	8.45	504412	9.31	527541	12.49	377154	15.06
ZZZZZZ	174225	6.44	390497	8.45	495226	9.31	511599	12.49	385967	15.07
ZZZZZZ	188485	6.45	390744	8.45	495338	9.31	521128	12.49	382143	15.06
JD27524-1MS	153792	6.46	377542	8.45	478281	9.31	486795	12.49	365583	15.06
JD27524-1MSD	164020	6.44	391500	8.45	505721	9.31	519087	12.49	366481	15.06
ZZZZZZ	177279	6.45	400370	8.45	509042	9.31	516925	12.49	382006	15.06
ZZZZZZ	168512	6.44	387532	8.45	488547	9.31	503960	12.49	372611	15.07
ZZZZZZ	172206	6.45	388380	8.45	490922	9.31	507341	12.49	371391	15.06
ZZZZZZ	172230	6.44	375174	8.45	474411	9.31	496258	12.49	365927	15.07
ZZZZZZ	160878	6.44	379707	8.45	480021	9.31	505453	12.49	369557	15.07
ZZZZZZ	169279	6.45	374276	8.45	471145	9.31	488510	12.49	366090	15.07
ZZZZZZ	168207	6.46	366807	8.45	460496	9.31	479346	12.49	354399	15.07
V4B4568-ECC4538	158836	6.47	359281	8.45	457348	9.31	473172	12.49	360983	15.06

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD27695-1	4B105443.D	106	113	99	97
JD27695-2	4B105444.D	108	112	98	96
JD27695-3	4B105445.D	106	112	98	96
JD27695-4	4B105446.D	109	113	98	96
JD27695-5	4B105447.D	108	114	99	96
JD27695-6	4B105458.D	101	111	96	99
JD27695-7	4B105449.D	109	116	97	97
JD27695-8	4B105432.D	108	111	95	97
JD27695-9	4B105436.D	106	108	97	97
JD27695-10	4B105437.D	107	109	99	95
JD27524-1MS	4B105466.D	103	108	97	93
JD27524-1MSD	4B105467.D	104	105	95	95
JD27695-8MS	4B105433.D	108	108	98	98
JD27695-8MSD	4B105434.D	108	103	99	98
V4B4567-BS	4B105429.D	111	108	98	97
V4B4567-MB	4B105431.D	109	110	96	97
V4B4568-BS	4B105455.D	104	109	96	94
V4B4568-MB	4B105457.D	103	109	95	94

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	85-118%
S2 = 1,2-Dichloroethane-D4	80-121%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-ICC4538
Lab FileID: 4B104813.D

Response Factor Report MS4B

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
Last Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration

Calibration Files
1 =4B104808.D 4 =4B104810.D 100 =4B104814.D 50 =4B104813.D
20 =4B104812.D 200 =4B104815.D 8 =4B104811.D 0.5 =4B104807.D
2 =4B104809.D 0.2 =4B104806.D = =

Compound	1	4	100	50	20	200	8	0.5	2	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	----------ISTD----------											
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol	0.922	1.020	1.105	1.030	1.063	0.895		1.117			1.022	8.38
4) 1,4-dioxane	0.078	0.096	0.103	0.098	0.092	0.086					0.092	9.73
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.744	0.686	0.734	0.901	0.873	0.782	0.666		0.850		0.780	11.22
7) dichlorodifluoromethane	0.868	0.985	1.243	1.134	0.943	0.839		1.008			1.003	14.35
8) chloromethane	0.969	0.864	0.877	1.053	0.997	0.840	0.809	0.969	1.054		0.937	9.79
9) vinyl chloride	0.849	0.787	0.832	1.009	0.954	0.798	0.730		0.976		0.867	11.64
10) 1,3-butadiene	0.591	0.568	0.716	0.682	0.560	0.569					0.614	10.91
11) bromomethane	0.681	0.589	0.578	0.683	0.660	0.548	0.550		0.695		0.623	10.11
12) chloroethane	0.438	0.353	0.346	0.415	0.409	0.323	0.333	0.394	0.440		0.383	11.88
13) trichlorofluoromethane	0.872	0.842	0.925	1.134	1.039	0.886	0.801	0.894	1.079		0.941	12.21
14) ethyl ether	0.166	0.144	0.153	0.180	0.176	0.156	0.146		0.165		0.161	8.22
15) acrolein	0.048	0.063	0.075	0.065	0.064	0.057					0.062	14.56
16) freon 113	0.469	0.496	0.600	0.554	0.491	0.454					0.511	10.87
17) 1,1-dichloroethene	0.585	0.604	0.598	0.725	0.688	0.592	0.602	0.551	0.739		0.632	10.66
18) acetone	0.029	0.025	0.032	0.030	0.026	0.026		0.032			0.029	10.64
19) acetonitrile	0.051	0.044	0.056	0.056	0.044	0.048					0.050	11.48
20) iodomethane	0.931	0.905	0.906	1.071	1.006	0.910	0.865	0.849	1.020		0.940	7.99
21) carbon disulfide	1.634	1.486	1.488	1.787	1.710	1.483	1.471	1.489	1.774	1.826	1.615	9.13
22) methylene chloride	0.434	0.425	0.413	0.494	0.468	0.415	0.411	0.421	0.478		0.440	7.15
23) methyl acetate												

```
                0.264 0.222 0.269 0.282 0.228 0.231       0.276        0.253    9.98
24)  methyl tert butyl ether
          1.222 1.133 1.041 1.263 1.235 1.015 1.041 1.080 1.332 1.195  1.156    9.44
25)  trans-1,2-dichloroethene
          0.546 0.546 0.550 0.648 0.624 0.551 0.540       0.663        0.583    8.95
26)  hexane
          0.294 0.266 0.294 0.356 0.330 0.299 0.266 0.322 0.346        0.308   10.54
27)  di-isopropyl ether
          1.542 1.448 1.500 1.757 1.679 1.509 1.423 1.416 1.710 1.472  1.546    8.05
28)  2-butanone
                0.024 0.027 0.034 0.033 0.029 0.023       0.020        0.027   19.70
29)  1,1-dichloroethane
          0.680 0.658 0.673 0.790 0.763 0.670 0.649 0.605 0.784        0.697    9.39
30)  chloroprene
                0.476 0.512 0.605 0.553 0.514 0.473       0.588        0.532    9.79
31)  acrylonitrile
                      0.107 0.127 0.125 0.110 0.087                    0.111   14.57
32)  vinyl acetate
                      0.052 0.059 0.051 0.056 0.043                    0.052   11.15
33)  ethyl tert-butyl ether
          1.359 1.333 1.323 1.584 1.523 1.279 1.274 1.272 1.545 1.362  1.385    8.63
34)  ethyl acetate
                0.046 0.046 0.057 0.054 0.047 0.043                    0.049   10.99
35)  2,2-dichloropropane
          0.781 0.736 0.765 0.916 0.863 0.768 0.721 0.761 0.907        0.802    9.18
36)  cis-1,2-dichloroethene
          0.422 0.396 0.394 0.454 0.428 0.399 0.380 0.415 0.464        0.417    6.80
37)  propionitrile
                0.041 0.039 0.050 0.049 0.041 0.040       0.046        0.044   10.47
38)  methyl acrylate
                0.019 0.042 0.049 0.046 0.044 0.035                    0.039   28.51
           ---- Linear regression ----  Coefficient =  0.9951
             Response Ratio = -0.00156 + 0.04519 *A

39)  methacrylonitrile
                0.103 0.111 0.128 0.124 0.116 0.102       0.107        0.113    9.09
40)  bromochloromethane
          0.218 0.218 0.215 0.252 0.235 0.220 0.202 0.171 0.233        0.218   10.40
41)  tetrahydrofuran
                      0.036 0.043 0.042 0.038 0.035                    0.039    9.25
42)  chloroform
          0.776 0.671 0.682 0.795 0.754 0.685 0.652 0.690 0.813        0.724    8.30
43)  tert-butyl formate
                0.355 0.384 0.449 0.419 0.389 0.342       0.384        0.389    9.33
44)  dibromofluoromethane (s)
          0.441 0.439 0.444 0.447 0.442 0.455 0.439 0.444 0.435 0.447  0.444    1.23
45)  1,1,1-trichloroethane
          0.791 0.776 0.860 1.025 0.926 0.883 0.786 0.766 0.957        0.863   10.64
46)  cyclohexane
          0.685 0.683 0.738 0.910 0.817 0.730 0.614 0.753 0.837        0.752   12.04
47)  isobutyl alcohol
                                                                       0.000   -1.00
48)  1,1-dichloropropene
          0.487 0.453 0.466 0.561 0.518 0.484 0.445 0.415 0.561 0.479  0.487    9.83
49)  carbon tetrachloride
          0.698 0.704 0.758 0.906 0.824 0.786 0.674       0.852        0.775   10.57
50)  tert-amyl alcohol
                0.026 0.016 0.021 0.021 0.017 0.019                    0.020   18.42
51)  isopropyl acetate
                0.054 0.066 0.078 0.075 0.069 0.052                    0.066   16.43
```

52) I 1,4-difluorobenzene ----------ISTD----------
53) 1,2-dichloroethane-d4 (s)
0.356 0.366 0.352 0.361 0.361 0.338 0.364 0.357 0.359 0.357 0.357 2.21
54) n-butyl alcohol
0.007 0.005 0.007 0.008 0.005 0.006 0.007 0.007 0.007 15.43
55) 2,2,4-trimethylpentane
1.057 0.992 1.248 1.409 1.229 1.314 0.964 0.937 1.196 1.150 14.60
56) benzene
1.118 1.068 1.099 1.295 1.204 1.102 1.035 1.063 1.224 1.071 1.128 7.48
57) tert-amyl methyl ether
1.020 0.983 1.022 1.220 1.170 0.974 0.968 0.985 1.157 1.157 1.065 9.22
58) heptane
0.210 0.200 0.214 0.252 0.234 0.213 0.195 0.185 0.244 0.216 10.43
59) 1,2-dichloroethane
0.429 0.383 0.369 0.436 0.415 0.368 0.352 0.418 0.440 0.467 0.408 9.20
60) ethyl acrylate
0.284 0.272 0.274 0.330 0.325 0.283 0.247 0.268 0.285 9.88
61) trichloroethene
0.267 0.271 0.291 0.342 0.312 0.291 0.263 0.343 0.297 10.71
62) 2-chloroethyl vinyl ether
0.145 0.145 0.155 0.185 0.174 0.154 0.143 0.169 0.159 9.80
63) methyl methacrylate
0.050 0.059 0.069 0.062 0.061 0.048 0.053 0.058 12.86
64) methylcyclohexane
0.617 0.600 0.673 0.811 0.732 0.685 0.605 0.742 0.683 11.02
65) 1,2-dichloropropane
0.339 0.288 0.297 0.350 0.332 0.297 0.284 0.290 0.354 0.314 9.09
66) dibromomethane
0.185 0.173 0.172 0.203 0.191 0.175 0.169 0.175 0.195 0.182 6.59
67) bromodichloromethane
0.395 0.371 0.405 0.468 0.433 0.410 0.370 0.387 0.444 0.409 8.20
68) 2-nitropropane
0.046 0.057 0.070 0.060 0.060 0.045 0.059 0.057 15.67
69) epichlorohydrin
0.024 0.027 0.023 0.029 0.028 0.023 0.022 0.027 0.025 10.03
70) cis-1,3-dichloropropene
0.426 0.414 0.449 0.524 0.482 0.448 0.399 0.483 0.453 9.10
71) 4-methyl-2-pentanone
0.101 0.100 0.100 0.123 0.121 0.103 0.097 0.116 0.108 9.73
72) isoamyl alcohol
0.008 0.007 0.010 0.010 0.007 0.007 0.007 0.008 14.83

73) I chlorobenzene-d5 ----------ISTD----------
74) toluene-d8 (s)
1.183 1.214 1.252 1.226 1.231 1.259 1.240 1.203 1.197 1.174 1.218 2.36
75) toluene
0.679 0.681 0.719 0.821 0.757 0.729 0.659 0.633 0.811 0.721 9.11
76) ethyl methacrylate
0.266 0.304 0.356 0.330 0.319 0.275 0.295 0.306 10.31
77) trans-1,3-dichloropropene
0.370 0.357 0.403 0.465 0.431 0.403 0.356 0.337 0.431 0.395 10.81
78) 1,1,2-trichloroethane
0.206 0.205 0.208 0.241 0.230 0.210 0.184 0.175 0.220 0.209 9.92
79) tetrachloroethene
0.271 0.268 0.306 0.353 0.328 0.309 0.278 0.310 0.303 9.82
80) 2-hexanone
0.079 0.086 0.082 0.101 0.100 0.083 0.086 0.086 0.088 9.38
81) 1,3-dichloropropane
0.413 0.374 0.381 0.445 0.428 0.374 0.362 0.340 0.427 0.394 9.05

82) butyl acetate
0.169 0.158 0.195 0.189 0.159 0.166 0.146 0.169 10.40
83) dibromochloromethane
0.327 0.301 0.346 0.396 0.363 0.355 0.310 0.312 0.338 0.339 8.88
84) 1,2-dibromoethane
0.265 0.251 0.267 0.313 0.297 0.271 0.245 0.304 0.277 9.07
85) n-butyl ether
1.363 1.345 1.372 1.608 1.535 1.350 1.298 1.497 1.421 7.77
86) chlorobenzene
0.837 0.808 0.839 0.967 0.922 0.837 0.778 0.747 0.919 0.850 8.50
87) 1,1,1,2-tetrachloroethane
0.389 0.373 0.441 0.489 0.442 0.450 0.372 0.420 0.422 9.83
88) ethylbenzene
1.525 1.428 1.490 1.743 1.643 1.484 1.400 1.328 1.613 1.517 8.58
89) m,p-xylene
0.556 0.534 0.574 0.672 0.635 0.581 0.543 0.528 0.642 0.585 8.94
90) o-xylene
1.353 1.271 1.356 1.561 1.460 1.373 1.236 1.203 1.421 1.359 8.33
91) styrene
0.784 0.815 0.886 1.029 0.944 0.898 0.803 0.690 0.882 0.878 0.861 10.86
92) butyl acrylate
0.532 0.549 0.550 0.666 0.652 0.549 0.529 0.595 0.578 9.38
93) isopropylbenzene
1.701 1.622 1.850 2.124 1.940 1.891 1.612 1.962 1.838 9.79
94) bromoform
0.265 0.246 0.269 0.312 0.294 0.276 0.233 0.236 0.262 0.266 9.80
95) cis-1,4-dichloro-2-butene
0.056 0.080 0.090 0.079 0.084 0.052 0.073 21.33
---- Linear regression ---- Coefficient = 0.9968
Response Ratio = -0.00292 + 0.08465 *A

96) I 1,4-dichlorobenzene-d ----------ISTD----------
97) 4-bromofluorobenzene (s)
0.726 0.730 0.759 0.745 0.730 0.753 0.743 0.719 0.736 0.703 0.734 2.25
98) 1,1,2,2-tetrachloroethane
0.557 0.531 0.591 0.679 0.631 0.612 0.500 0.620 0.590 9.84
99) trans-1,4-dichloro-2-butene
0.069 0.101 0.112 0.096 0.107 0.067 0.092 21.13
---- Linear regression ---- Coefficient = 0.9975
Response Ratio = -0.00406 + 0.10755 *A

100) 1,2,3-trichloropropane
0.142 0.155 0.176 0.171 0.157 0.135 0.168 0.158 9.57
101) bromobenzene
0.661 0.601 0.706 0.785 0.714 0.708 0.585 0.764 0.690 10.33
102) n-propylbenzene
2.716 2.619 3.049 3.444 3.130 3.073 2.607 3.152 2.974 10.00
103) 2-chlorotoluene
0.591 0.573 0.661 0.735 0.660 0.677 0.551 0.648 0.637 9.58
104) 4-chlorotoluene
1.662 1.560 1.703 1.941 1.820 1.700 1.514 1.506 1.876 1.539 1.682 9.28
105) 1,3,5-trimethylbenzene
1.895 2.415 2.635 2.344 2.521 1.884 2.257 2.279 12.81
106) tert-butylbenzene
1.407 2.032 2.164 1.848 2.196 1.418 1.774 1.834 17.78
107) 1,2,4-trimethylbenzene
2.050 2.424 2.715 2.487 2.502 2.013 2.338 2.361 10.71
108) sec-butylbenzene
2.398 3.189 3.478 3.077 3.371 2.433 2.898 2.978 14.37

Initial Calibration Summary

Job Number: JD27695 **Sample:** V4B4538-ICC4538
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 4B104813.D
Project: Emersub 15, LLC, Ithaca, NY

```
109)  p-isopropyltoluene
                 2.207 2.819 3.084 2.785 2.967 2.221       2.675        2.680   12.83
110)  1,3-dichlorobenzene
           1.344 1.267 1.338 1.518 1.417 1.335 1.220 1.145 1.473        1.340    8.88
111)  1,2,3-trimethylbenzene
                 2.123 2.580 2.861 2.554 2.715 2.099       2.471        2.486   11.48
112)  1,4-dichlorobenzene
           1.398 1.289 1.367 1.544 1.451 1.366 1.258 1.263 1.548 1.401  1.389    7.48
113)  1,2-dichlorobenzene
           1.375 1.277 1.427 1.617 1.532 1.442 1.281       1.484        1.429    8.24
114)  benzyl chloride
           1.192 1.137 1.248 1.460 1.392 1.259 1.107       1.290        1.261    9.56
115)  n-butylbenzene
                 1.128 1.311 1.495 1.381 1.345 1.118       1.346        1.303   10.46
116)  hexachloroethane
                 0.288 0.539 0.541 0.445       0.317       0.344        0.412   27.22
              ---- Quadratic regression ----  Coefficient =  0.9951
                Response Ratio = -0.01094 + 0.47587 *A + 0.03836 *A^2

117)  1,2-dibromo-3-chloropropane
                 0.148 0.186 0.217 0.200 0.192 0.152       0.168        0.181   13.98
118)  1,3,5-trichlorobenzene
           1.168 1.165 1.430 1.588 1.451 1.482 1.181       1.386        1.356   12.06
119)  1,2,4-trichlorobenzene
           1.035 1.106 1.410 1.559 1.419 1.435 1.151       1.294        1.301   14.28
120)  hexachlorobutadiene
                 0.516 0.639 0.705 0.668 0.675 0.502       0.644        0.621   12.84
121)  naphthalene
                 2.158 2.573 2.938 2.700 2.649 2.097       2.480        2.514   11.91
122)  1,2,3-trichlorobenzene
           1.001 0.966 1.247 1.394 1.266 1.289 0.977       1.096        1.155   14.28
123)  2-methylnaphthalene
                       1.539 1.708 1.515 1.632 1.084                    1.495   16.22
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M4B4538.M         Tue Jun 22 17:14:58 2021   MS4B
```

Initial Calibration Verification

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-ICV4538
Lab FileID: 4B104818.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\V4B4538\4B104818.D Vial: 15
Acq On : 16 Jun 2021 11:33 pm Operator: EddieH
Sample : icv4538-50 Inst : MS4B
Misc : MS51263,V4B4538,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
Last Update : Tue Jun 22 17:13:13 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	111	0.04	6.50
2	ethanol		----------NA----------				
3	tertiary butyl alcohol	1.022	1.028	-0.6	103	-0.03	6.61
4	1,4-dioxane	0.092	0.094	-2.2	101	-0.01	9.95
5 I	pentafluorobenzene	1.000	1.000	0.0	104	0.00	8.45
6	chlorodifluoromethane		----------NA----------				
7	dichlorodifluoromethane	1.003	1.241	-23.7	104	0.00	3.69
8	chloromethane	0.937	0.890	5.0	88	0.00	3.98
9	vinyl chloride	0.867	0.962	-11.0	100	0.00	4.18
10	1,3-butadiene	0.614	0.698	-13.7	102	-0.01	4.20
11	bromomethane	0.623	0.708	-13.6	108	0.00	4.70
12	chloroethane	0.383	0.398	-3.9	100	-0.02	4.83
13	trichlorofluoromethane	0.941	1.074	-14.1	99	-0.01	5.23
14	ethyl ether	0.161	0.174	-8.1	101	0.00	5.53
15	acrolein	0.062	0.078	-25.8	109	-0.02	5.71
16	freon 113	0.511	0.528	-3.3	92	-0.01	5.92
17	1,1-dichloroethene	0.632	0.687	-8.7	99	0.00	5.89
18	acetone	0.029	0.031	-6.9	103	-0.03	5.87
19	acetonitrile		----------NA----------				
20	iodomethane	0.940	1.054	-12.1	103	0.00	6.11
21	carbon disulfide	1.615	1.931	-19.6	113	0.00	6.25
22	methylene chloride	0.440	0.472	-7.3	100	0.00	6.48
23	methyl acetate	0.253	0.255	-0.8	99	-0.02	6.26
24	methyl tert butyl ether	1.156	1.233	-6.7	102	-0.02	6.81
25	trans-1,2-dichloroethene	0.583	0.607	-4.1	98	-0.01	6.83
26	hexane	0.308	0.330	-7.1	97	0.00	7.16
27	di-isopropyl ether	1.546	1.610	-4.1	96	0.00	7.33
28	2-butanone	0.027	0.034	-25.9	104	-0.04	7.89
29	1,1-dichloroethane	0.697	0.755	-8.3	100	0.01	7.33
30	chloroprene	0.532	0.629	-18.2	109	0.00	7.43
31	acrylonitrile		----------NA----------				
32	vinyl acetate	0.052	0.059	-13.5	106	-0.04	7.26
33	ethyl tert-butyl ether	1.385	1.461	-5.5	96	0.00	7.74
34	ethyl acetate	0.049	0.055	-12.2	101	-0.03	7.91
35	2,2-dichloropropane	0.802	0.886	-10.5	101	0.00	8.01
36	cis-1,2-dichloroethene	0.417	0.457	-9.6	105	0.00	7.96
37	propionitrile	0.044	0.049	-11.4	102	-0.02	7.93
	----------	True	Calc.	% Drift	----------		
38	methyl acrylate	50.000	56.361	-12.7	104	-0.03	7.99

Initial Calibration Verification

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-ICV4538
Lab FileID: 4B104818.D

			AvgRF	CCRF	% Dev			
39		methacrylonitrile	0.113	0.129	-14.2	105	-0.02	8.12
40		bromochloromethane	0.218	0.249	-14.2	103	0.00	8.23
41		tetrahydrofuran	0.039	0.044	-12.8	107	0.00	8.27
42		chloroform	0.724	0.771	-6.5	101	0.00	8.30
43		tert-butyl formate	0.389	0.342	12.1	80	0.00	8.35
44	S	dibromofluoromethane (s)	0.444	0.431	2.9	101	0.00	8.48
45		1,1,1-trichloroethane	0.863	0.978	-13.3	100	0.00	8.57
46		cyclohexane	0.752	0.910	-21.0	104	0.00	8.69
47		isobutyl alcohol		----------NA----------				
48		1,1-dichloropropene	0.487	0.536	-10.1	100	0.00	8.71
49		carbon tetrachloride	0.775	0.883	-13.9	102	0.00	8.76
50		tert-amyl alcohol	0.020	0.020	0.0	103	0.01	8.83
51		isopropyl acetate	0.066	0.077	-16.7	103	-0.01	8.84
52	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	9.31
53	S	1,2-dichloroethane-d4 (s)	0.357	0.344	3.6	99	0.00	8.86
54		n-butyl alcohol	0.007	0.007	0.0	97	-0.05	9.35
55		2,2,4-trimethylpentane	1.150	1.264	-9.9	93	0.00	9.04
56		benzene	1.128	1.281	-13.6	103	0.00	8.94
57		tert-amyl methyl ether	1.065	1.104	-3.7	94	0.00	9.02
58		heptane	0.216	0.240	-11.1	99	0.00	9.19
59		1,2-dichloroethane	0.408	0.421	-3.2	100	0.00	8.94
60		ethyl acrylate	0.285	0.325	-14.0	102	-0.03	9.59
61		trichloroethene	0.297	0.333	-12.1	101	0.00	9.62
62		2-chloroethyl vinyl ether	0.159	0.183	-15.1	103	-0.01	10.35
63		methyl methacrylate	0.058	0.070	-20.7	105	-0.02	9.84
64		methylcyclohexane	0.683	0.775	-13.5	99	0.00	9.92
65		1,2-dichloropropane	0.314	0.340	-8.3	101	0.00	9.88
66		dibromomethane	0.182	0.198	-8.8	101	0.00	9.98
67		bromodichloromethane	0.409	0.452	-10.5	100	0.00	10.13
68		2-nitropropane	0.057	0.065	-14.0	96	-0.02	10.30
69		epichlorohydrin	0.025	0.029	-16.0	103	-0.02	10.44
70		cis-1,3-dichloropropene	0.453	0.495	-9.3	98	-0.01	10.58
71		4-methyl-2-pentanone	0.108	0.124	-14.8	105	-0.02	10.68
72		isoamyl alcohol	0.008	0.009	-12.5	97	-0.04	10.68
73	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	12.49
74	S	toluene-d8 (s)	1.218	1.249	-2.5	103	0.00	10.91
75		toluene	0.721	0.840	-16.5	104	0.00	10.98
76		ethyl methacrylate	0.306	0.354	-15.7	101	-0.03	11.15
77		trans-1,3-dichloropropene	0.395	0.468	-18.5	102	-0.01	11.16
78		1,1,2-trichloroethane	0.209	0.242	-15.8	102	-0.01	11.38
79		tetrachloroethene		----------NA----------				
80		2-hexanone	0.088	0.105	-19.3	105	-0.02	11.56
81		1,3-dichloropropane	0.394	0.454	-15.2	103	0.00	11.57
82		butyl acetate	0.169	0.195	-15.4	102	-0.02	11.66
83		dibromochloromethane	0.339	0.407	-20.1	105	0.00	11.84
84		1,2-dibromoethane	0.277	0.317	-14.4	103	0.00	12.01
85		n-butyl ether	1.421	1.623	-14.2	102	-0.02	12.50
86		chlorobenzene	0.850	0.970	-14.1	102	0.00	12.53
87		1,1,1,2-tetrachloroethane	0.422	0.510	-20.9	106	0.00	12.60
88		ethylbenzene	1.517	1.737	-14.5	101	0.00	12.60
89		m,p-xylene	0.585	0.678	-15.9	102	-0.01	12.73
90		o-xylene	1.359	1.580	-16.3	103	-0.01	13.16
91		styrene	0.861	1.023	-18.8	101	-0.02	13.18
92		butyl acrylate	0.578	0.644	-11.4	98	-0.03	12.98
93		isopropylbenzene	1.838	2.139	-16.4	102	0.00	13.55
94		bromoform	0.266	0.318	-19.5	103	-0.01	13.42

Initial Calibration Verification

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-ICV4538
Lab FileID: 4B104818.D

			True	Calc.	% Drift			
95		cis-1,4-dichloro-2-butene	50.000	55.853	-11.7	103	-0.01	13.57

			AvgRF	CCRF	% Dev			
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	15.07
97	S	4-bromofluorobenzene (s)	0.734	0.726	1.1	99	0.00	13.77
98		1,1,2,2-tetrachloroethane	0.590	0.671	-13.7	101	-0.01	13.84

		True	Calc.	% Drift			
99	trans-1,4-dichloro-2-bute	50.000	56.349	-12.7	106	-0.02	13.87

		AvgRF	CCRF	% Dev			
100	1,2,3-trichloropropane	0.158	0.183	-15.8	106	0.00	13.93
101	bromobenzene	0.690	0.800	-15.9	104	0.00	13.97
102	n-propylbenzene	2.974	3.466	-16.5	102	-0.01	14.01
103	2-chlorotoluene	0.637	0.739	-16.0	102	0.00	14.15
104	4-chlorotoluene	1.682	1.929	-14.7	101	-0.01	14.28
105	1,3,5-trimethylbenzene	2.279	2.682	-17.7	104	-0.01	14.19
106	tert-butylbenzene	1.834	2.221	-21.1	104	0.00	14.56
107	1,2,4-trimethylbenzene	2.361	2.722	-15.3	102	-0.01	14.62
108	sec-butylbenzene	2.978	3.538	-18.8	103	0.00	14.81
109	p-isopropyltoluene	2.680	3.133	-16.9	103	0.00	14.95
110	1,3-dichlorobenzene	1.340	1.531	-14.3	103	0.00	14.99
111	1,2,3-trimethylbenzene		----------NA----------				
112	1,4-dichlorobenzene	1.389	1.540	-10.9	101	0.00	15.09
113	1,2-dichlorobenzene	1.429	1.645	-15.1	103	-0.01	15.50
114	benzyl chloride	1.261	1.422	-12.8	99	-0.02	15.19
115	n-butylbenzene	1.303	1.505	-15.5	102	-0.02	15.41

		True	Calc.	% Drift			
116	hexachloroethane	50.000	57.547	-15.1	110	0.00	15.84

		AvgRF	CCRF	% Dev			
117	1,2-dibromo-3-chloropropa	0.181	0.222	-22.7	104	-0.01	16.34
118	1,3,5-trichlorobenzene	1.356	1.660	-22.4	106	-0.02	16.56
119	1,2,4-trichlorobenzene	1.301	1.608	-23.6	105	-0.02	17.24
120	hexachlorobutadiene	0.621	0.708	-14.0	102	0.00	17.37
121	naphthalene	2.514	3.029	-20.5	105	-0.02	17.54
122	1,2,3-trichlorobenzene	1.155	1.442	-24.8	105	-0.01	17.77
123	2-methylnaphthalene	1.495	1.809	-21.0	108	-0.02	18.79

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

4B104813.D M4B4538.M Tue Jun 22 17:14:47 2021 MS4B

Initial Calibration Verification

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-ICV4538
Lab FileID: 4B104819.D

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\V4B4538\4B104819.D Vial: 16
Acq On : 17 Jun 2021 12:01 am Operator: EddieH
Sample : icv4538-50 Inst : MS4B
Misc : MS51263,V4B4538,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:41:19 2021
Last Update : Thu Jun 17 09:41:19 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	125	-0.01	6.49
2	ethanol		----------NA----------				
3	tertiary butyl alcohol		----------NA----------				
4	1,4-dioxane		----------NA----------				
5 I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	8.45
6	chlorodifluoromethane	0.780	0.834	-6.9	99	0.00	3.71
7	dichlorodifluoromethane		----------NA----------				
8	chloromethane		----------NA----------				
9	vinyl chloride		----------NA----------				
10	1,3-butadiene		----------NA----------				
11	bromomethane		----------NA----------				
12	chloroethane		----------NA----------				
13	trichlorofluoromethane		----------NA----------				
14	ethyl ether		----------NA----------				
15	acrolein		----------NA----------				
16	freon 113		----------NA----------				
17	1,1-dichloroethene		----------NA----------				
18	acetone		----------NA----------				
19	acetonitrile	0.050	0.059	-18.0	113	0.00	6.22
20	iodomethane		----------NA----------				
21	carbon disulfide		----------NA----------				
22	methylene chloride		----------NA----------				
23	methyl acetate		----------NA----------				
24	methyl tert butyl ether		----------NA----------				
25	trans-1,2-dichloroethene		----------NA----------				
26	hexane		----------NA----------				
27	di-isopropyl ether		----------NA----------				
28	2-butanone		----------NA----------				
29	1,1-dichloroethane		----------NA----------				
30	chloroprene		----------NA----------				
31	acrylonitrile	0.111	0.125	-12.6	105	0.02	6.72
32	vinyl acetate		----------NA----------				
33	ethyl tert-butyl ether		----------NA----------				
34	ethyl acetate		----------NA----------				
35	2,2-dichloropropane		----------NA----------				
36	cis-1,2-dichloroethene		----------NA----------				
37	propionitrile		----------NA----------				
	----------	True	Calc.	% Drift	----------		
38	methyl acrylate		----------NA----------				

Initial Calibration Verification

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-ICV4538
Lab FileID: 4B104819.D

				AvgRF	CCRF	% Dev			
39		methacrylonitrile			NA				
40		bromochloromethane			NA				
41		tetrahydrofuran			NA				
42		chloroform			NA				
43		tert-butyl formate			NA				
44	S	dibromofluoromethane (s)		0.444	0.430	3.2	103	0.00	8.48
45		1,1,1-trichloroethane			NA				
46		cyclohexane			NA				
47		isobutyl alcohol			NA				
48		1,1-dichloropropene			NA				
49		carbon tetrachloride			NA				
50		tert-amyl alcohol			NA				
51		isopropyl acetate			NA				
52	I	1,4-difluorobenzene		1.000	1.000	0.0	105	0.00	9.31
53	S	1,2-dichloroethane-d4 (s)		0.357	0.346	3.1	101	0.00	8.86
54		n-butyl alcohol			NA				
55		2,2,4-trimethylpentane			NA				
56		benzene			NA				
57		tert-amyl methyl ether			NA				
58		heptane			NA				
59		1,2-dichloroethane			NA				
60		ethyl acrylate			NA				
61		trichloroethene			NA				
62		2-chloroethyl vinyl ether			NA				
63		methyl methacrylate			NA				
64		methylcyclohexane			NA				
65		1,2-dichloropropane			NA				
66		dibromomethane			NA				
67		bromodichloromethane			NA				
68		2-nitropropane			NA				
69		epichlorohydrin			NA				
70		cis-1,3-dichloropropene			NA				
71		4-methyl-2-pentanone			NA				
72		isoamyl alcohol			NA				
73	I	chlorobenzene-d5		1.000	1.000	0.0	106	0.00	12.49
74	S	toluene-d8 (s)		1.218	1.208	0.8	105	0.00	10.91
75		toluene			NA				
76		ethyl methacrylate			NA				
77		trans-1,3-dichloropropene			NA				
78		1,1,2-trichloroethane			NA				
79		tetrachloroethene		0.303	0.329	-8.6	99	0.00	11.57
80		2-hexanone			NA				
81		1,3-dichloropropane			NA				
82		butyl acetate			NA				
83		dibromochloromethane			NA				
84		1,2-dibromoethane			NA				
85		n-butyl ether			NA				
86		chlorobenzene			NA				
87		1,1,1,2-tetrachloroethane			NA				
88		ethylbenzene			NA				
89		m,p-xylene			NA				
90		o-xylene			NA				
91		styrene			NA				
92		butyl acrylate			NA				
93		isopropylbenzene			NA				
94		bromoform			NA				

Initial Calibration Verification

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4538-ICV4538
Lab FileID: 4B104819.D

				True	Calc.	% Drift			
95		cis-1,4-dichloro-2-butene			NA				
				AvgRF	CCRF	% Dev			
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	117	0.00	15.07	
97	S	4-bromofluorobenzene (s)	0.734	0.714	2.7	113	0.00	13.77	
98		1,1,2,2-tetrachloroethane			NA				
				True	Calc.	% Drift			
99		trans-1,4-dichloro-2-bute			NA				
				AvgRF	CCRF	% Dev			
100		1,2,3-trichloropropane			NA				
101		bromobenzene			NA				
102		n-propylbenzene			NA				
103		2-chlorotoluene			NA				
104		4-chlorotoluene			NA				
105		1,3,5-trimethylbenzene			NA				
106		tert-butylbenzene			NA				
107		1,2,4-trimethylbenzene			NA				
108		sec-butylbenzene			NA				
109		p-isopropyltoluene			NA				
110		1,3-dichlorobenzene			NA				
111		1,2,3-trimethylbenzene	2.486	2.535	-2.0	104	0.00	15.09	
112		1,4-dichlorobenzene			NA				
113		1,2-dichlorobenzene			NA				
114		benzyl chloride			NA				
115		n-butylbenzene			NA				
				True	Calc.	% Drift			
116		hexachloroethane			NA				
				AvgRF	CCRF	% Dev			
117		1,2-dibromo-3-chloropropa			NA				
118		1,3,5-trichlorobenzene			NA				
119		1,2,4-trichlorobenzene			NA				
120		hexachlorobutadiene			NA				
121		naphthalene			NA				
122		1,2,3-trichlorobenzene			NA				
123		2-methylnaphthalene			NA				

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

4B104813.D M4B4538.M Thu Jun 17 15:19:24 2021 MS4B

Continuing Calibration Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4567-CC4538
Lab FileID: 4B105427.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kr...21\v4b4567\4b105427.d Vial: 28
Acq On : 9 Jul 2021 8:53 pm Operator: EddieH
Sample : cc4538-50 Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
Last Update : Tue Jun 22 17:13:13 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	120	-0.02	6.45
2	ethanol		----------NA----------				
3	tertiary butyl alcohol	1.022	1.178	-15.3	128	-0.09	6.55
4	1,4-dioxane	0.092	0.090	2.2	106	-0.02	9.94
5 I	pentafluorobenzene	1.000	1.000	0.0	115	0.00	8.45
6	chlorodifluoromethane	0.780	0.646	17.2	82	0.00	3.71
7	dichlorodifluoromethane	1.003	1.072	-6.9	99	0.00	3.69
8	chloromethane	0.937	0.795	15.2	87	0.01	3.99
9	vinyl chloride	0.867	0.802	7.5	91	0.02	4.19
10	1,3-butadiene	0.614	0.593	3.4	95	0.01	4.22
11	bromomethane	0.623	0.617	1.0	104	0.01	4.71
12	chloroethane	0.383	0.354	7.6	98	0.00	4.84
13	trichlorofluoromethane	0.941	1.145	-21.7#	116	0.00	5.24
14	ethyl ether	0.161	0.158	1.9	101	0.00	5.53
15	acrolein	0.062	0.069	-11.3	106	-0.03	5.70
16	freon 113	0.511	0.516	-1.0	99	-0.01	5.92
17	1,1-dichloroethene	0.632	0.637	-0.8	101	0.00	5.89
18	acetone	0.029	0.030	-3.4	108	-0.03	5.87
19	acetonitrile	0.050	0.050	0.0	102	-0.04	6.21
20	iodomethane	0.940	0.926	1.5	99	0.00	6.11
21	carbon disulfide	1.615	1.437	11.0	92	0.00	6.25
22	methylene chloride	0.440	0.448	-1.8	104	0.00	6.48
23	methyl acetate	0.253	0.251	0.8	107	-0.02	6.26
24	methyl tert butyl ether	1.156	1.215	-5.1	111	-0.02	6.81
25	trans-1,2-dichloroethene	0.583	0.584	-0.2	104	-0.01	6.83
26	hexane	0.308	0.277	10.1	89	-0.01	7.15
27	di-isopropyl ether	1.546	1.423	8.0	93	0.00	7.33
28	2-butanone	0.027	0.035	-29.6#	118	-0.04	7.89
29	1,1-dichloroethane	0.697	0.727	-4.3	106	0.01	7.33
30	chloroprene	0.532	0.571	-7.3	108	0.00	7.43
31	acrylonitrile	0.111	0.132	-18.9	119	-0.03	6.71
32	vinyl acetate	0.052	0.053	-1.9	104	-0.04	7.26
33	ethyl tert-butyl ether	1.385	1.452	-4.8	105	0.00	7.74
34	ethyl acetate	0.049	0.045	8.2	90	-0.03	7.91
35	2,2-dichloropropane	0.802	0.852	-6.2	107	0.00	8.00
36	cis-1,2-dichloroethene	0.417	0.432	-3.6	109	0.00	7.96
37	propionitrile	0.044	0.047	-6.8	107	-0.02	7.93
	----------	True	Calc.	% Drift	----------		
38	methyl acrylate	50.000	58.006	-16.0	118	-0.03	7.99

Continuing Calibration Summary

Job Number: JD27695 **Sample:** V4B4567-CC4538
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 4B105427.D
Project: Emersub 15, LLC, Ithaca, NY

			AvgRF	CCRF	% Dev			
39		methacrylonitrile	0.113	0.124	-9.7	112	-0.01	8.13
40		bromochloromethane	0.218	0.251	-15.1	114	0.00	8.23
41		tetrahydrofuran	0.039	0.044	-12.8	116	-0.01	8.26
42		chloroform	0.724	0.790	-9.1	114	0.00	8.30
43		tert-butyl formate	0.389	0.468	-20.3#	120	0.00	8.34
44	S	dibromofluoromethane (s)	0.444	0.481	-8.3	124	0.00	8.48
45		1,1,1-trichloroethane	0.863	0.982	-13.8	110	0.00	8.57
46		cyclohexane	0.752	0.758	-0.8	96	0.00	8.69
47		isobutyl alcohol		----------NA----------				
48		1,1-dichloropropene	0.487	0.508	-4.3	104	0.00	8.71
49		carbon tetrachloride	0.775	0.900	-16.1	114	0.00	8.75
50		tert-amyl alcohol	0.020	0.023	-15.0	125	0.00	8.81
51		isopropyl acetate	0.066	0.076	-15.2	112	-0.01	8.84
52	I	1,4-difluorobenzene	1.000	1.000	0.0	116	0.00	9.31
53	S	1,2-dichloroethane-d4 (s)	0.357	0.391	-9.5	125	0.00	8.86
54		n-butyl alcohol	0.007	0.007	0.0	102	-0.06	9.34
55		2,2,4-trimethylpentane	1.150	1.357	-18.0	111	0.00	9.04
56		benzene	1.128	1.148	-1.8	102	0.00	8.94
57		tert-amyl methyl ether	1.065	1.144	-7.4	108	0.00	9.02
58		heptane	0.216	0.213	1.4	98	0.00	9.18
59		1,2-dichloroethane	0.408	0.465	-14.0	123	0.00	8.94
60		ethyl acrylate	0.285	0.315	-10.5	111	-0.03	9.59
61		trichloroethene	0.297	0.322	-8.4	109	0.00	9.62
62		2-chloroethyl vinyl ether	0.159	0.178	-11.9	111	0.00	10.36
63		methyl methacrylate	0.058	0.070	-20.7#	116	-0.02	9.85
64		methylcyclohexane	0.683	0.684	-0.1	98	0.00	9.92
65		1,2-dichloropropane	0.314	0.305	2.9	101	0.00	9.88
66		dibromomethane	0.182	0.210	-15.4	120	0.00	9.98
67		bromodichloromethane	0.409	0.482	-17.8	119	0.00	10.13
68		2-nitropropane	0.057	0.079	-38.6#	130	-0.02	10.30
69		epichlorohydrin	0.025	0.028	-12.0	111	-0.02	10.44
70		cis-1,3-dichloropropene	0.453	0.509	-12.4	112	-0.01	10.58
71		4-methyl-2-pentanone	0.108	0.118	-9.3	112	-0.02	10.68
72		isoamyl alcohol	0.008	0.010	-25.0#	117	-0.04	10.68
73	I	chlorobenzene-d5	1.000	1.000	0.0	119	0.00	12.49
74	S	toluene-d8 (s)	1.218	1.205	1.1	117	0.00	10.91
75		toluene	0.721	0.739	-2.5	107	0.00	10.98
76		ethyl methacrylate	0.306	0.331	-8.2	111	-0.03	11.16
77		trans-1,3-dichloropropene	0.395	0.468	-18.5	120	-0.02	11.15
78		1,1,2-trichloroethane	0.209	0.232	-11.0	115	-0.01	11.38
79		tetrachloroethene	0.303	0.329	-8.6	111	0.00	11.57
80		2-hexanone	0.088	0.099	-12.5	117	-0.02	11.56
81		1,3-dichloropropane	0.394	0.433	-9.9	116	0.00	11.57
82		butyl acetate	0.169	0.179	-5.9	110	-0.02	11.66
83		dibromochloromethane	0.339	0.417	-23.0#	126	0.00	11.84
84		1,2-dibromoethane	0.277	0.315	-13.7	120	0.00	12.01
85		n-butyl ether	1.421	1.441	-1.4	107	-0.02	12.50
86		chlorobenzene	0.850	0.939	-10.5	116	0.00	12.53
87		1,1,1,2-tetrachloroethane	0.422	0.487	-15.4	119	0.00	12.59
88		ethylbenzene	1.517	1.623	-7.0	111	0.00	12.60
89		m,p-xylene	0.585	0.636	-8.7	113	-0.01	12.73
90		o-xylene	1.359	1.480	-8.9	113	-0.01	13.16
91		styrene	0.861	1.007	-17.0	117	-0.02	13.18
92		butyl acrylate	0.578	0.635	-9.9	114	-0.03	12.98
93		isopropylbenzene	1.838	2.021	-10.0	113	0.00	13.55
94		bromoform	0.266	0.357	-34.2#	136	-0.01	13.42

Continuing Calibration Summary

Job Number: JD27695 **Sample:** V4B4567-CC4538
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 4B105427.D
Project: Emersub 15, LLC, Ithaca, NY

		True	Calc.	% Drift			
95	cis-1,4-dichloro-2-butene	50.000	35.193	29.6#	75	-0.01	13.57

		AvgRF	CCRF	% Dev			
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	132	0.00	15.06
97 S	4-bromofluorobenzene (s)	0.734	0.716	2.5	126	0.00	13.76
98	1,1,2,2-tetrachloroethane	0.590	0.628	-6.4	122	-0.01	13.84

		True	Calc.	% Drift			
99	trans-1,4-dichloro-2-bute	50.000	32.938	34.1#	78	-0.02	13.87

		AvgRF	CCRF	% Dev			
100	1,2,3-trichloropropane	0.158	0.176	-11.4	132	0.00	13.93
101	bromobenzene	0.690	0.748	-8.4	125	0.00	13.96
102	n-propylbenzene	2.974	3.050	-2.6	117	-0.01	14.01
103	2-chlorotoluene	0.637	0.679	-6.6	121	0.00	14.15
104	4-chlorotoluene	1.682	1.828	-8.7	124	-0.02	14.27
105	1,3,5-trimethylbenzene	2.279	2.399	-5.3	120	-0.01	14.19
106	tert-butylbenzene	1.834	2.009	-9.5	122	0.00	14.56
107	1,2,4-trimethylbenzene	2.361	2.481	-5.1	120	-0.01	14.62
108	sec-butylbenzene	2.978	3.207	-7.7	121	0.00	14.81
109	p-isopropyltoluene	2.680	2.917	-8.8	124	0.00	14.95
110	1,3-dichlorobenzene	1.340	1.471	-9.8	127	0.00	14.99
111	1,2,3-trimethylbenzene	2.486	2.753	-10.7	127	0.00	15.09
112	1,4-dichlorobenzene	1.389	1.512	-8.9	129	0.00	15.09
113	1,2-dichlorobenzene	1.429	1.603	-12.2	130	-0.01	15.50
114	benzyl chloride	1.261	1.499	-18.9	135	-0.02	15.19
115	n-butylbenzene	1.303	1.454	-11.6	128	-0.02	15.41

		True	Calc.	% Drift			
116	hexachloroethane	50.000	52.016	-4.0	128	0.00	15.84

		AvgRF	CCRF	% Dev			
117	1,2-dibromo-3-chloropropa	0.181	0.230	-27.1#	140	-0.01	16.34
118	1,3,5-trichlorobenzene	1.356	1.717	-26.6#	142	-0.02	16.56
119	1,2,4-trichlorobenzene	1.301	1.598	-22.8#	135	-0.02	17.24
120	hexachlorobutadiene	0.621	0.766	-23.3#	143	0.00	17.37
121	naphthalene	2.514	2.912	-15.8	130	-0.02	17.54
122	1,2,3-trichlorobenzene	1.155	1.439	-24.6#	136	-0.02	17.77
123	2-methylnaphthalene	1.495	1.613	-7.9	124	-0.02	18.79

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B104813.D M4B4538.M Mon Jul 12 12:04:27 2021

Continuing Calibration Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4568-CC4538
Lab FileID: 4B105453.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...b4568-rush\4b105453.d Vial: 3
Acq On : 12 Jul 2021 8:44 am Operator: EddieH
Sample : CC4538-20 Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
Last Update : Tue Jun 22 17:13:13 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	106	-0.01	6.46
2	ethanol		----------NA----------				
3	tertiary butyl alcohol	1.022	1.152	-12.7	119	-0.09	6.55
4	1,4-dioxane	0.092	0.099	-7.6	108	-0.02	9.94
5 I	pentafluorobenzene	1.000	1.000	0.0	111	0.00	8.45
6	chlorodifluoromethane	0.780	0.673	13.7	85	0.00	3.71
7	dichlorodifluoromethane	1.003	1.072	-6.9	105	0.01	3.70
8	chloromethane	0.937	0.814	13.1	91	0.01	3.99
9	vinyl chloride	0.867	0.809	6.7	94	0.02	4.19
10	1,3-butadiene	0.614	0.577	6.0	94	0.00	4.21
11	bromomethane	0.623	0.624	-0.2	105	0.01	4.71
12	chloroethane	0.383	0.358	6.5	97	-0.02	4.83
13	trichlorofluoromethane	0.941	1.146	-21.8#	122	0.00	5.24
14	ethyl ether	0.161	0.153	5.0	97	0.00	5.53
15	acrolein	0.062	0.064	-3.2	109	-0.02	5.72
16	freon 113	0.511	0.521	-2.0	104	-0.02	5.92
17	1,1-dichloroethene	0.632	0.643	-1.7	104	0.00	5.90
18	acetone	0.029	0.031	-6.9	113	-0.02	5.88
19	acetonitrile	0.050	0.052	-4.0	102	-0.03	6.22
20	iodomethane	0.940	0.910	3.2	100	0.00	6.11
21	carbon disulfide	1.615	1.431	11.4	93	0.00	6.25
22	methylene chloride	0.440	0.443	-0.7	105	0.00	6.48
23	methyl acetate	0.253	0.245	3.2	96	-0.01	6.27
24	methyl tert butyl ether	1.156	1.229	-6.3	110	-0.02	6.81
25	trans-1,2-dichloroethene	0.583	0.595	-2.1	106	-0.01	6.83
26	hexane	0.308	0.266	13.6	90	-0.01	7.15
27	di-isopropyl ether	1.546	1.422	8.0	94	0.00	7.33
28	2-butanone	0.027	0.034	-25.9#	114	-0.04	7.89
29	1,1-dichloroethane	0.697	0.733	-5.2	107	0.01	7.33
30	chloroprene	0.532	0.549	-3.2	110	0.00	7.43
31	acrylonitrile	0.111	0.116	-4.5	103	-0.02	6.72
32	vinyl acetate	0.052	0.056	-7.7	123	-0.03	7.27
33	ethyl tert-butyl ether	1.385	1.452	-4.8	106	0.00	7.74
34	ethyl acetate	0.049	0.046	6.1	95	-0.02	7.92
35	2,2-dichloropropane	0.802	0.929	-15.8	119	0.00	8.00
36	cis-1,2-dichloroethene	0.417	0.441	-5.8	115	0.00	7.96
37	propionitrile	0.044	0.047	-6.8	108	0.00	7.94
	----------	True	Calc.	% Drift	----------		
38	methyl acrylate	20.000	24.367	-21.8#	124	-0.01	8.01

Continuing Calibration Summary

Job Number: JD27695 **Sample:** V4B4568-CC4538
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 4B105453.D
Project: Emersub 15, LLC, Ithaca, NY

			AvgRF	CCRF	% Dev			
39		methacrylonitrile	0.113	0.113	0.0	101	0.00	8.13
40		bromochloromethane	0.218	0.239	-9.6	113	0.00	8.23
41		tetrahydrofuran	0.039	0.042	-7.7	110	0.00	8.27
42		chloroform	0.724	0.788	-8.8	116	0.00	8.30
43		tert-butyl formate	0.389	0.455	-17.0	121	0.00	8.35
44	S	dibromofluoromethane (s)	0.444	0.459	-3.4	115	0.00	8.48
45		1,1,1-trichloroethane	0.863	0.991	-14.8	119	0.00	8.57
46		cyclohexane	0.752	0.737	2.0	100	0.00	8.69
47		isobutyl alcohol		----------NA----------				
48		1,1-dichloropropene	0.487	0.508	-4.3	109	0.00	8.71
49		carbon tetrachloride	0.775	0.910	-17.4	123	0.00	8.75
50		tert-amyl alcohol	0.020	0.022	-10.0	118	-0.01	8.81
51		isopropyl acetate	0.066	0.070	-6.1	103	-0.01	8.84
52	I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	9.31
53	S	1,2-dichloroethane-d4 (s)	0.357	0.390	-9.2	121	0.00	8.86
54		n-butyl alcohol	0.007	0.007	0.0	99	-0.05	9.35
55		2,2,4-trimethylpentane	1.150	1.226	-6.6	111	0.00	9.04
56		benzene	1.128	1.126	0.2	104	0.00	8.94
57		tert-amyl methyl ether	1.065	1.146	-7.6	109	0.00	9.02
58		heptane	0.216	0.212	1.9	101	0.00	9.18
59		1,2-dichloroethane	0.408	0.474	-16.2	128	0.00	8.95
60		ethyl acrylate	0.285	0.284	0.4	98	-0.02	9.60
61		trichloroethene	0.297	0.319	-7.4	114	0.00	9.62
62		2-chloroethyl vinyl ether	0.159	0.169	-6.3	109	0.00	10.36
63		methyl methacrylate	0.058	0.059	-1.7	105	-0.02	9.85
64		methylcyclohexane	0.683	0.668	2.2	102	0.00	9.92
65		1,2-dichloropropane	0.314	0.307	2.2	103	0.00	9.88
66		dibromomethane	0.182	0.200	-9.9	117	0.00	9.98
67		bromodichloromethane	0.409	0.470	-14.9	121	0.00	10.13
68		2-nitropropane	0.057	0.078	-36.8#	145	-0.02	10.30
69		epichlorohydrin	0.025	0.029	-16.0	115	-0.02	10.44
70		cis-1,3-dichloropropene	0.453	0.520	-14.8	121	0.00	10.59
71		4-methyl-2-pentanone	0.108	0.117	-8.3	108	-0.02	10.68
72		isoamyl alcohol	0.008	0.010	-25.0#	109	-0.04	10.68
73	I	chlorobenzene-d5	1.000	1.000	0.0	117	0.00	12.49
74	S	toluene-d8 (s)	1.218	1.161	4.7	110	0.00	10.91
75		toluene	0.721	0.717	0.6	111	0.00	10.98
76		ethyl methacrylate	0.306	0.278	9.2	98	-0.02	11.17
77		trans-1,3-dichloropropene	0.395	0.462	-17.0	126	-0.01	11.16
78		1,1,2-trichloroethane	0.209	0.226	-8.1	115	0.00	11.39
79		tetrachloroethene	0.303	0.319	-5.3	114	0.00	11.57
80		2-hexanone	0.088	0.095	-8.0	111	-0.02	11.56
81		1,3-dichloropropane	0.394	0.435	-10.4	119	0.00	11.58
82		butyl acetate	0.169	0.172	-1.8	106	-0.02	11.66
83		dibromochloromethane	0.339	0.406	-19.8	131	0.00	11.84
84		1,2-dibromoethane	0.277	0.297	-7.2	117	0.00	12.01
85		n-butyl ether	1.421	1.427	-0.4	109	-0.02	12.50
86		chlorobenzene	0.850	0.932	-9.6	118	0.00	12.53
87		1,1,1,2-tetrachloroethane	0.422	0.458	-8.5	121	0.00	12.60
88		ethylbenzene	1.517	1.610	-6.1	115	0.00	12.60
89		m,p-xylene	0.585	0.626	-7.0	115	0.00	12.73
90		o-xylene	1.359	1.421	-4.6	114	0.00	13.17
91		styrene	0.861	0.902	-4.8	112	-0.02	13.18
92		butyl acrylate	0.578	0.565	2.2	101	-0.02	12.99
93		isopropylbenzene	1.838	1.913	-4.1	116	0.00	13.55
94		bromoform	0.266	0.342	-28.6#	136	-0.01	13.42

Continuing Calibration Summary

Job Number: JD27695 **Sample:** V4B4568-CC4538
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 4B105453.D
Project: Emersub 15, LLC, Ithaca, NY

		True	Calc.	% Drift			
95	cis-1,4-dichloro-2-butene	20.000	19.238	3.8	110	-0.01	13.57

		AvgRF	CCRF	% Dev			
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	128	0.00	15.06
97 S	4-bromofluorobenzene (s)	0.734	0.677	7.8	118	0.00	13.77
98	1,1,2,2-tetrachloroethane	0.590	0.580	1.7	117	-0.01	13.84

		True	Calc.	% Drift			
99	trans-1,4-dichloro-2-bute	20.000	15.203	24.0#	95	-0.01	13.88

		AvgRF	CCRF	% Dev			
100	1,2,3-trichloropropane	0.158	0.168	-6.3	125	0.00	13.93
101	bromobenzene	0.690	0.709	-2.8	127	0.00	13.97
102	n-propylbenzene	2.974	2.906	2.3	118	-0.01	14.01
103	2-chlorotoluene	0.637	0.636	0.2	123	0.00	14.15
104	4-chlorotoluene	1.682	1.750	-4.0	123	-0.01	14.28
105	1,3,5-trimethylbenzene	2.279	2.230	2.2	121	-0.01	14.19
106	tert-butylbenzene	1.834	1.756	4.3	121	0.00	14.56
107	1,2,4-trimethylbenzene	2.361	2.370	-0.4	122	-0.01	14.62
108	sec-butylbenzene	2.978	2.951	0.9	122	0.00	14.81
109	p-isopropyltoluene	2.680	2.675	0.2	122	0.00	14.95
110	1,3-dichlorobenzene	1.340	1.420	-6.0	128	0.00	14.99
111	1,2,3-trimethylbenzene	2.486	2.577	-3.7	129	0.00	15.09
112	1,4-dichlorobenzene	1.389	1.440	-3.7	127	0.00	15.09
113	1,2-dichlorobenzene	1.429	1.520	-6.4	126	0.00	15.51
114	benzyl chloride	1.261	1.536	-21.8#	141	-0.02	15.19
115	n-butylbenzene	1.303	1.361	-4.5	126	-0.02	15.41

		True	Calc.	% Drift			
116	hexachloroethane	20.000	20.035	-0.2	133	0.00	15.84

		AvgRF	CCRF	% Dev			
117	1,2-dibromo-3-chloropropa	0.181	0.206	-13.8	131	-0.01	16.34
118	1,3,5-trichlorobenzene	1.356	1.534	-13.1	135	-0.02	16.56
119	1,2,4-trichlorobenzene	1.301	1.413	-8.6	127	-0.02	17.24
120	hexachlorobutadiene	0.621	0.707	-13.8	135	0.00	17.37
121	naphthalene	2.514	2.505	0.4	118	-0.02	17.54
122	1,2,3-trichlorobenzene	1.155	1.230	-6.5	124	-0.01	17.77
123	2-methylnaphthalene	1.495	1.196	20.0#	101	-0.02	18.79

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B104812.D M4B4538.M Mon Jul 12 22:29:39 2021

Continuing Calibration Summary

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V4B4568-ECC4538
Lab FileID: 4B105476.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...v4b4568 hw\4b105476.d Vial: 26
Acq On : 12 Jul 2021 7:40 pm Operator: EddieH
Sample : ecc4538-50 Inst : MS4B
Misc : MS52035,V4B4568,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
Last Update : Tue Jun 22 17:13:13 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	106	0.00	6.47
2	ethanol		----------NA----------				
3	tertiary butyl alcohol	1.022	1.200	-17.4	115	-0.11	6.53
4	1,4-dioxane	0.092	0.092	0.0	95	-0.03	9.93
5 I	pentafluorobenzene	1.000	1.000	0.0	115	0.00	8.45
6	chlorodifluoromethane	0.780	0.713	8.6	91	0.00	3.71
7	dichlorodifluoromethane	1.003	1.118	-11.5	103	0.02	3.70
8	chloromethane	0.937	0.854	8.9	93	0.01	3.99
9	vinyl chloride	0.867	0.829	4.4	94	0.02	4.19
10	1,3-butadiene	0.614	0.591	3.7	94	0.00	4.20
11	bromomethane	0.623	0.625	-0.3	105	0.01	4.71
12	chloroethane	0.383	0.372	2.9	103	0.00	4.84
13	trichlorofluoromethane	0.941	1.177	-25.1	119	0.00	5.24
14	ethyl ether	0.161	0.163	-1.2	104	0.00	5.53
15	acrolein	0.062	0.060	3.2	92	-0.03	5.70
16	freon 113	0.511	0.527	-3.1	101	0.00	5.93
17	1,1-dichloroethene	0.632	0.657	-4.0	104	0.00	5.89
18	acetone	0.029	0.030	-3.4	109	-0.02	5.87
19	acetonitrile	0.050	0.049	2.0	99	-0.04	6.21
20	iodomethane	0.940	0.929	1.2	99	0.00	6.11
21	carbon disulfide	1.615	1.492	7.6	96	0.00	6.25
22	methylene chloride	0.440	0.464	-5.5	108	0.00	6.48
23	methyl acetate	0.253	0.257	-1.6	109	-0.02	6.26
24	methyl tert butyl ether	1.156	1.254	-8.5	114	-0.02	6.81
25	trans-1,2-dichloroethene	0.583	0.605	-3.8	107	-0.01	6.83
26	hexane	0.308	0.268	13.0	86	-0.01	7.15
27	di-isopropyl ether	1.546	1.507	2.5	98	0.00	7.33
28	2-butanone	0.027	0.035	-29.6	117	-0.05	7.89
29	1,1-dichloroethane	0.697	0.758	-8.8	110	0.00	7.33
30	chloroprene	0.532	0.584	-9.8	111	0.00	7.43
31	acrylonitrile	0.111	0.126	-13.5	113	-0.03	6.71
32	vinyl acetate	0.052	0.060	-15.4	118	-0.04	7.26
33	ethyl tert-butyl ether	1.385	1.518	-9.6	110	0.00	7.74
34	ethyl acetate	0.049	0.049	0.0	98	-0.03	7.91
35	2,2-dichloropropane	0.802	0.780	2.7	97	0.00	8.01
36	cis-1,2-dichloroethene	0.417	0.447	-7.2	113	0.00	7.96
37	propionitrile	0.044	0.046	-4.5	105	-0.02	7.93
	----------	True	Calc.	% Drift	----------		
38	methyl acrylate	50.000	57.969	-15.9	118	-0.03	7.99

Continuing Calibration Summary

Job Number: JD27695 **Sample:** V4B4568-ECC4538
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 4B105476.D
Project: Emersub 15, LLC, Ithaca, NY

			AvgRF	CCRF	% Dev			
39		methacrylonitrile	0.113	0.122	-8.0	108	-0.01	8.13
40		bromochloromethane	0.218	0.260	-19.3	118	-0.01	8.23
41		tetrahydrofuran	0.039	0.045	-15.4	120	-0.02	8.26
42		chloroform	0.724	0.821	-13.4	118	0.00	8.30
43		tert-butyl formate	0.389	0.460	-18.3	117	0.00	8.34
44	S	dibromofluoromethane (s)	0.444	0.463	-4.3	119	0.00	8.47
45		1,1,1-trichloroethane	0.863	1.014	-17.5	113	0.00	8.57
46		cyclohexane	0.752	0.765	-1.7	96	0.00	8.69
47		isobutyl alcohol		----------NA----------				
48		1,1-dichloropropene	0.487	0.528	-8.4	108	0.00	8.71
49		carbon tetrachloride	0.775	0.954	-23.1	121	0.00	8.75
50		tert-amyl alcohol	0.020	0.020	0.0	109	-0.01	8.81
51		isopropyl acetate	0.066	0.075	-13.6	110	-0.01	8.84
52	I	1,4-difluorobenzene	1.000	1.000	0.0	117	0.00	9.31
53	S	1,2-dichloroethane-d4 (s)	0.357	0.389	-9.0	126	0.00	8.86
54		n-butyl alcohol	0.007	0.006	14.3	93	-0.06	9.34
55		2,2,4-trimethylpentane	1.150	1.294	-12.5	108	0.00	9.04
56		benzene	1.128	1.166	-3.4	106	0.00	8.94
57		tert-amyl methyl ether	1.065	1.185	-11.3	114	0.00	9.02
58		heptane	0.216	0.201	6.9	93	0.00	9.18
59		1,2-dichloroethane	0.408	0.468	-14.7	126	0.00	8.94
60		ethyl acrylate	0.285	0.314	-10.2	112	-0.03	9.59
61		trichloroethene	0.297	0.325	-9.4	112	0.00	9.61
62		2-chloroethyl vinyl ether	0.159	0.175	-10.1	111	0.00	10.36
63		methyl methacrylate	0.058	0.067	-15.5	114	-0.02	9.84
64		methylcyclohexane	0.683	0.684	-0.1	99	0.00	9.92
65		1,2-dichloropropane	0.314	0.313	0.3	105	0.00	9.88
66		dibromomethane	0.182	0.213	-17.0	123	0.00	9.98
67		bromodichloromethane	0.409	0.486	-18.8	122	0.00	10.13
68		2-nitropropane	0.057	0.078	-36.8	129	-0.02	10.30
69		epichlorohydrin	0.025	0.027	-8.0	108	-0.02	10.44
70		cis-1,3-dichloropropene	0.453	0.508	-12.1	114	-0.01	10.58
71		4-methyl-2-pentanone	0.108	0.117	-8.3	111	-0.02	10.68
72		isoamyl alcohol	0.008	0.009	-12.5	106	-0.04	10.68
73	I	chlorobenzene-d5	1.000	1.000	0.0	122	0.00	12.49
74	S	toluene-d8 (s)	1.218	1.164	4.4	116	0.00	10.91
75		toluene	0.721	0.744	-3.2	111	0.00	10.98
76		ethyl methacrylate	0.306	0.326	-6.5	112	-0.03	11.16
77		trans-1,3-dichloropropene	0.395	0.466	-18.0	122	-0.02	11.15
78		1,1,2-trichloroethane	0.209	0.233	-11.5	118	-0.01	11.38
79		tetrachloroethene	0.303	0.320	-5.6	110	0.00	11.57
80		2-hexanone	0.088	0.098	-11.4	119	-0.02	11.56
81		1,3-dichloropropane	0.394	0.433	-9.9	119	0.00	11.57
82		butyl acetate	0.169	0.183	-8.3	114	-0.02	11.66
83		dibromochloromethane	0.339	0.417	-23.0	129	0.00	11.84
84		1,2-dibromoethane	0.277	0.310	-11.9	121	0.00	12.01
85		n-butyl ether	1.421	1.469	-3.4	111	-0.02	12.50
86		chlorobenzene	0.850	0.933	-9.8	118	0.00	12.53
87		1,1,1,2-tetrachloroethane	0.422	0.488	-15.6	122	0.00	12.59
88		ethylbenzene	1.517	1.630	-7.4	114	0.00	12.60
89		m,p-xylene	0.585	0.637	-8.9	116	0.00	12.73
90		o-xylene	1.359	1.510	-11.1	118	-0.01	13.16
91		styrene	0.861	1.003	-16.5	119	-0.02	13.18
92		butyl acrylate	0.578	0.640	-10.7	117	-0.03	12.98
93		isopropylbenzene	1.838	2.031	-10.5	117	0.00	13.55
94		bromoform	0.266	0.354	-33.1	138	-0.01	13.42

Continuing Calibration Summary

Job Number: JD27695 **Sample:** V4B4568-ECC4538
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 4B105476.D
Project: Emersub 15, LLC, Ithaca, NY

		True	Calc.	% Drift			
95	cis-1,4-dichloro-2-butene	50.000	46.101	7.8	101	-0.01	13.57

		AvgRF	CCRF	% Dev			
96 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	140	0.00	15.06
97 S	4-bromofluorobenzene (s)	0.734	0.678	7.6	127	0.00	13.76
98	1,1,2,2-tetrachloroethane	0.590	0.599	-1.5	123	-0.01	13.84

		True	Calc.	% Drift			
99	trans-1,4-dichloro-2-bute	50.000	37.639	24.7	96	-0.02	13.87

		AvgRF	CCRF	% Dev			
100	1,2,3-trichloropropane	0.158	0.172	-8.9	137	0.00	13.93
101	bromobenzene	0.690	0.725	-5.1	129	0.00	13.96
102	n-propylbenzene	2.974	2.997	-0.8	122	-0.01	14.01
103	2-chlorotoluene	0.637	0.656	-3.0	125	0.00	14.15
104	4-chlorotoluene	1.682	1.795	-6.7	129	-0.01	14.28
105	1,3,5-trimethylbenzene	2.279	2.313	-1.5	123	-0.01	14.19
106	tert-butylbenzene	1.834	1.907	-4.0	123	0.00	14.56
107	1,2,4-trimethylbenzene	2.361	2.435	-3.1	125	-0.01	14.62
108	sec-butylbenzene	2.978	3.094	-3.9	124	0.00	14.81
109	p-isopropyltoluene	2.680	2.796	-4.3	127	0.00	14.95
110	1,3-dichlorobenzene	1.340	1.455	-8.6	134	0.00	14.99
111	1,2,3-trimethylbenzene	2.486	2.702	-8.7	132	-0.01	15.09
112	1,4-dichlorobenzene	1.389	1.470	-5.8	133	0.00	15.09
113	1,2-dichlorobenzene	1.429	1.554	-8.7	134	-0.01	15.50
114	benzyl chloride	1.261	1.166	7.5	112	-0.02	15.19
115	n-butylbenzene	1.303	1.406	-7.9	131	-0.02	15.41

		True	Calc.	% Drift			
116	hexachloroethane	50.000	51.647	-3.3	135	0.00	15.84

		AvgRF	CCRF	% Dev			
117	1,2-dibromo-3-chloropropa	0.181	0.218	-20.4	141	-0.01	16.34
118	1,3,5-trichlorobenzene	1.356	1.605	-18.4	141	-0.02	16.56
119	1,2,4-trichlorobenzene	1.301	1.509	-16.0	135	-0.02	17.24
120	hexachlorobutadiene	0.621	0.697	-12.2	138	0.00	17.37
121	naphthalene	2.514	2.792	-11.1	133	-0.02	17.54
122	1,2,3-trichlorobenzene	1.155	1.364	-18.1	137	-0.02	17.77
123	2-methylnaphthalene	1.495	1.450	3.0	119	-0.02	18.79

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B104813.D M4B4538.M Mon Jul 12 23:05:53 2021

Run Sequence Report

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Run ID: V4B4538	**Method:** SW846 8260D	**Instrument ID:** GCMS4B

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V4B4538-BFB	4B104805.D	06/16/21 17:22	n/a	BFB Tune
V4B4538-IC4538	4B104806.D	06/16/21 17:57	n/a	Initial cal 0.2
V4B4538-IC4538	4B104807.D	06/16/21 18:25	n/a	Initial cal 0.5
V4B4538-IC4538	4B104808.D	06/16/21 18:53	n/a	Initial cal 1
V4B4538-IC4538	4B104809.D	06/16/21 19:21	n/a	Initial cal 2
V4B4538-IC4538	4B104810.D	06/16/21 19:49	n/a	Initial cal 4
V4B4538-IC4538	4B104811.D	06/16/21 20:17	n/a	Initial cal 8
V4B4538-IC4538	4B104812.D	06/16/21 20:46	n/a	Initial cal 20
V4B4538-ICC4538	4B104813.D	06/16/21 21:14	n/a	Initial cal 50
V4B4538-IC4538	4B104814.D	06/16/21 21:42	n/a	Initial cal 100
V4B4538-IC4538	4B104815.D	06/16/21 22:10	n/a	Initial cal 200
V4B4538-ICV4538	4B104818.D	06/16/21 23:33	n/a	Initial cal verification 50
V4B4538-ICV4538	4B104819.D	06/17/21 00:01	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Run ID: V4B4567	**Method:** SW846 8260D	**Instrument ID:** GCMS4B

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V4B4567-BFB	4B105427.D	07/09/21 20:53	n/a	BFB Tune
V4B4567-CC4538	4B105427.D	07/09/21 20:53	n/a	Continuing cal 50
V4B4567-BS	4B105429.D	07/09/21 21:49	n/a	Blank Spike
V4B4567-MB	4B105431.D	07/09/21 22:47	n/a	Method Blank
JD27695-8	4B105432.D	07/09/21 23:15	n/a	BW SEEP 070121
JD27695-8MS	4B105433.D	07/09/21 23:44	n/a	Matrix Spike
JD27695-8MSD	4B105434.D	07/10/21 00:12	n/a	Matrix Spike Duplicate
JD27695-9	4B105436.D	07/10/21 01:09	n/a	EB-070121
JD27695-10	4B105437.D	07/10/21 01:37	n/a	TRIP BLANK
ZZZZZZ	4B105438.D	07/10/21 02:05	n/a	(unrelated sample)
ZZZZZZ	4B105439.D	07/10/21 02:33	n/a	(unrelated sample)
ZZZZZZ	4B105440.D	07/10/21 03:02	n/a	(unrelated sample)
ZZZZZZ	4B105441.D	07/10/21 03:30	n/a	(unrelated sample)
ZZZZZZ	4B105442.D	07/10/21 03:58	n/a	(unrelated sample)
JD27695-1	4B105443.D	07/10/21 04:26	n/a	BD24 SEEP 070121
JD27695-2	4B105444.D	07/10/21 04:54	n/a	BD 070121
JD27695-3	4B105445.D	07/10/21 05:23	n/a	OPEN DITCH 001 070121
JD27695-4	4B105446.D	07/10/21 05:51	n/a	BYPASS 070121
JD27695-5	4B105447.D	07/10/21 06:19	n/a	WB SEEPS 070121
JD27695-7	4B105449.D	07/10/21 07:16	n/a	WOODEN SLUICE 070121
ZZZZZZ	4B105450.D	07/10/21 07:44	n/a	(unrelated sample)

Run Sequence Report

Job Number: JD27695
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Run ID: V4B4568	**Method:** SW846 8260D	**Instrument ID:** GCMS4B

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V4B4568-BFB	4B105453.D	07/12/21 08:44	n/a	BFB Tune
V4B4568-CC4538	4B105453.D	07/12/21 08:44	n/a	Continuing cal 20
V4B4568-BS	4B105455.D	07/12/21 09:41	n/a	Blank Spike
V4B4568-MB	4B105457.D	07/12/21 10:37	n/a	Method Blank
JD27695-6	4B105458.D	07/12/21 11:05	n/a	OUTFALL 001 070121
ZZZZZZ	4B105459.D	07/12/21 11:34	n/a	(unrelated sample)
ZZZZZZ	4B105460.D	07/12/21 12:02	n/a	(unrelated sample)
ZZZZZZ	4B105461.D	07/12/21 12:31	n/a	(unrelated sample)
JD27524-1	4B105462.D	07/12/21 12:59	n/a	(used for QC only; not part of job JD27695)
ZZZZZZ	4B105463.D	07/12/21 13:28	n/a	(unrelated sample)
ZZZZZZ	4B105464.D	07/12/21 13:56	n/a	(unrelated sample)
ZZZZZZ	4B105465.D	07/12/21 14:26	n/a	(unrelated sample)
JD27524-1MS	4B105466.D	07/12/21 14:54	n/a	Matrix Spike
JD27524-1MSD	4B105467.D	07/12/21 15:23	n/a	Matrix Spike Duplicate
ZZZZZZ	4B105469.D	07/12/21 16:20	n/a	(unrelated sample)
ZZZZZZ	4B105470.D	07/12/21 16:49	n/a	(unrelated sample)
ZZZZZZ	4B105471.D	07/12/21 17:18	n/a	(unrelated sample)
ZZZZZZ	4B105472.D	07/12/21 17:46	n/a	(unrelated sample)
ZZZZZZ	4B105473.D	07/12/21 18:14	n/a	(unrelated sample)
ZZZZZZ	4B105474.D	07/12/21 18:43	n/a	(unrelated sample)
ZZZZZZ	4B105475.D	07/12/21 19:12	n/a	(unrelated sample)
V4B4568-ECC4538	4B105476.D	07/12/21 19:40	n/a	Ending cal 50

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105443.d
Acq On : 10 Jul 2021 4:26 am
Operator : EddieH
Sample : JD27695-1 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:55:07 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

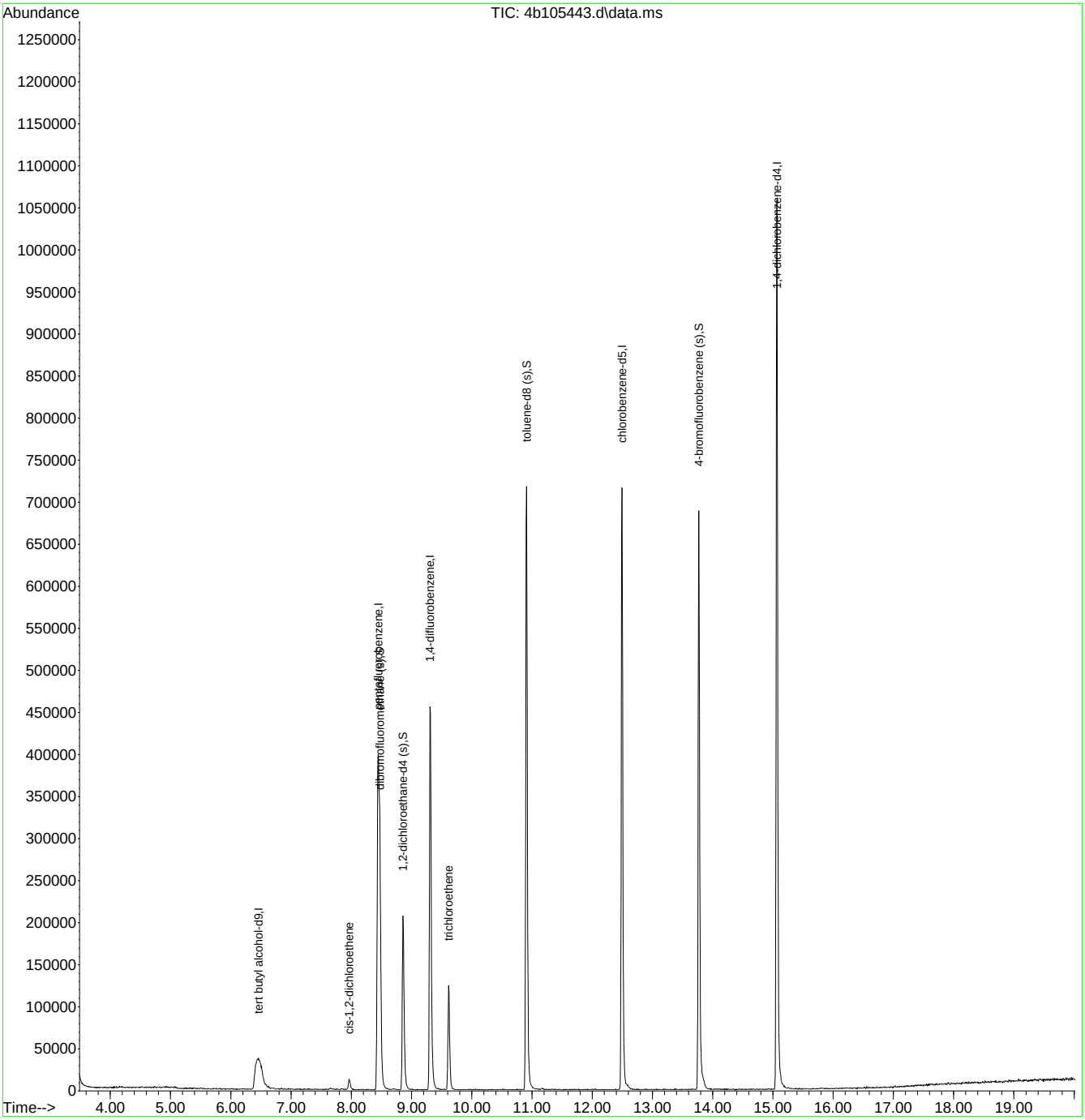
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.458	65	165850	500.00	ug/L	0.02
5) pentafluorobenzene	8.445	168	341269	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.308	114	421327	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	434498	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	329074	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	159854	52.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.60%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	169570	56.38	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 112.76%			
74) toluene-d8 (s)	10.909	98	524643	49.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%			
97) 4-bromofluorobenzene (s)	13.770	95	234599	48.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.08%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	7.964	96	6716	2.36	ug/L	84
61) trichloroethene	9.617	95	43780	17.48	ug/L	94

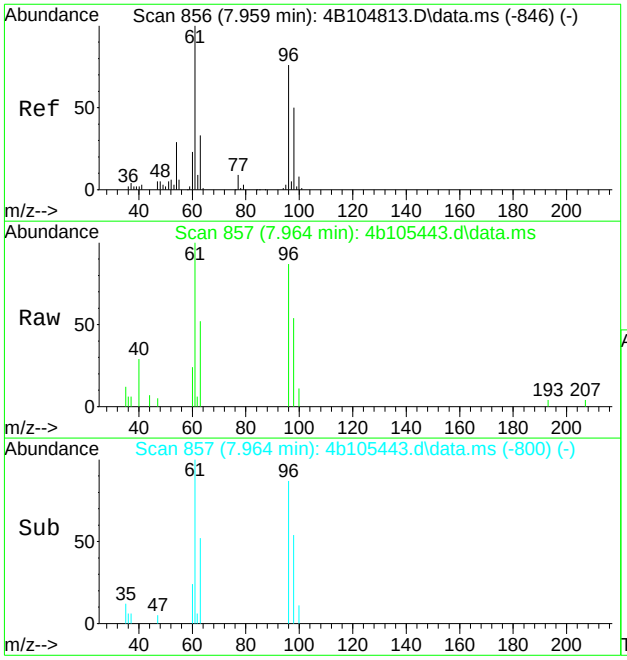
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105443.d
Acq On : 10 Jul 2021 4:26 am
Operator : EddieH
Sample : JD27695-1 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:55:07 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

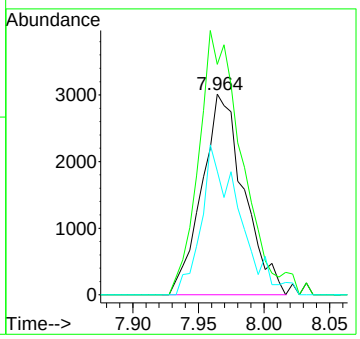


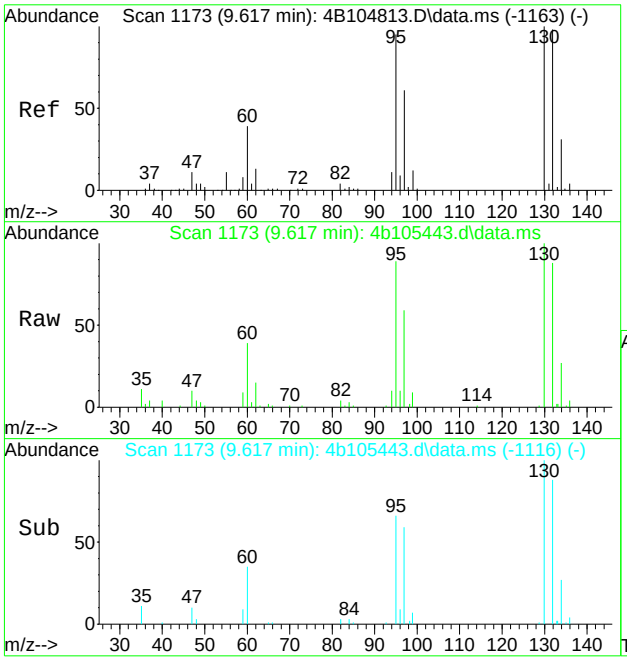


#36
cis-1,2-dichloroethene
Concen: 2.36 ug/L
RT: 7.964 min Scan# 857
Delta R.T. -0.000 min
Lab File: 4b105443.d
Acq: 10 Jul 2021 4:26 am

Tgt Ion: 96 Resp: 6716

Ion	Ratio	Lower	Upper
96	100		
61	114.8	110.2	170.2
98	61.6	35.5	95.5

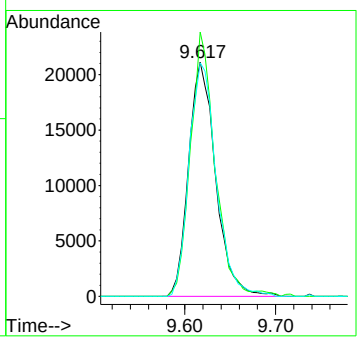




#61
trichloroethene
Concen: 17.48 ug/L
RT: 9.617 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 4b105443.d
Acq: 10 Jul 2021 4:26 am

Tgt Ion: 95 Resp: 43780

Ion	Ratio	Lower	Upper
95	100		
130	112.8	75.2	135.2
132	99.7	73.5	133.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105444.d
Acq On : 10 Jul 2021 4:54 am
Operator : EddieH
Sample : JD27695-2 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:55:38 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

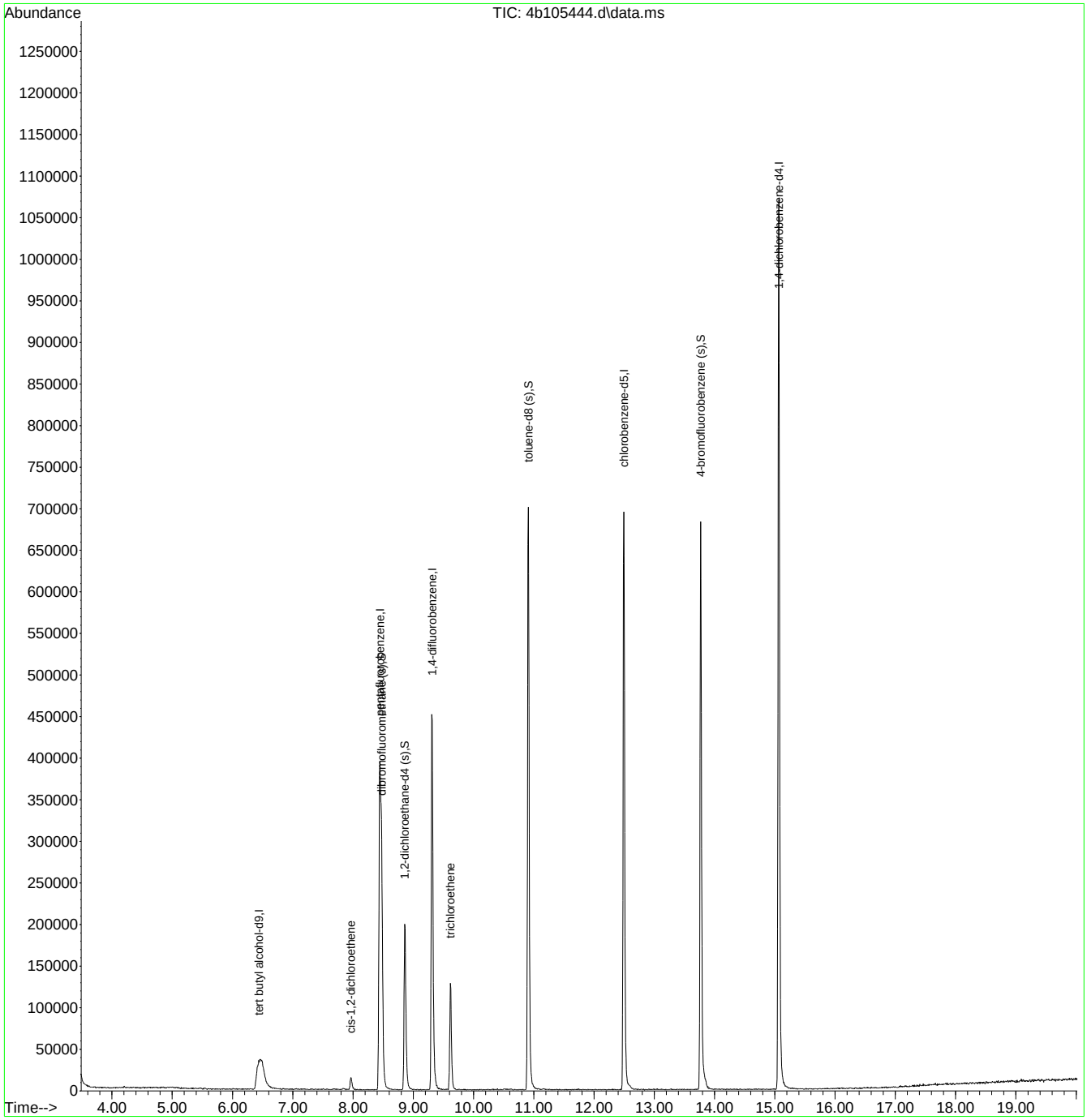
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.437	65	169482	500.00	ug/L	0.00
5) pentafluorobenzene	8.445	168	333913	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	418075	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	427788	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	327709	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	159630	53.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.78%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	167079	55.99	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 111.98%			
74) toluene-d8 (s)	10.909	98	511437	49.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.16%			
97) 4-bromofluorobenzene (s)	13.770	95	232066	48.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.44%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	7.964	96	7910	2.84	ug/L	98
61) trichloroethene	9.617	95	44570	17.93	ug/L	97

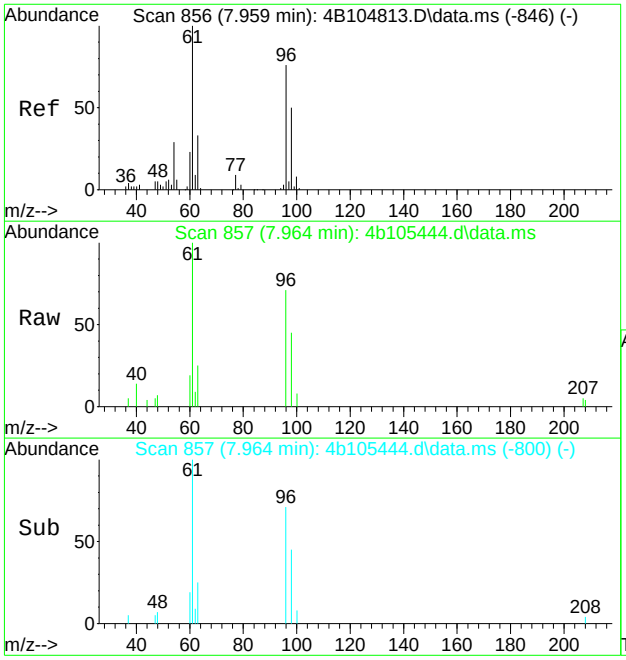
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105444.d
Acq On : 10 Jul 2021 4:54 am
Operator : EddieH
Sample : JD27695-2 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:55:38 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

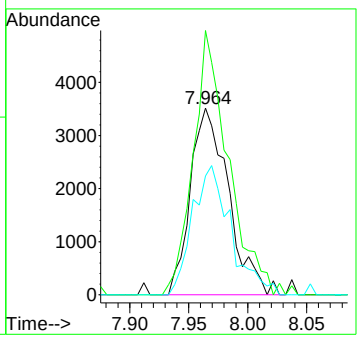


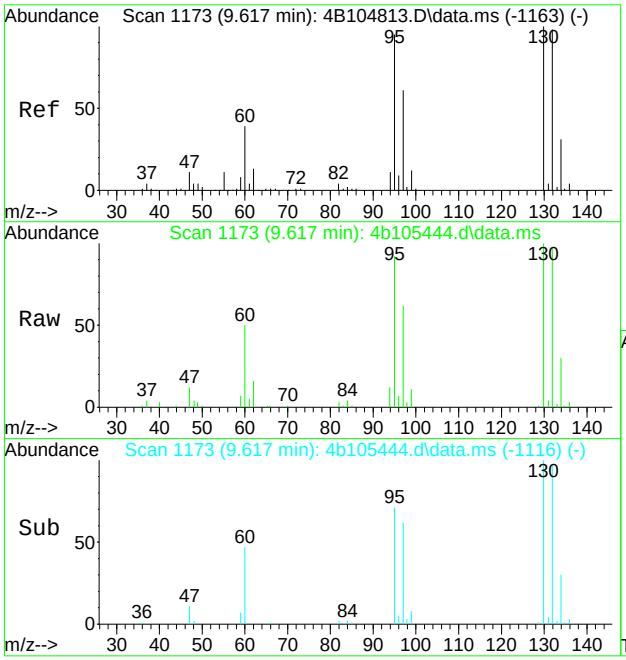


#36
cis-1,2-dichloroethene
Concen: 2.84 ug/L
RT: 7.964 min Scan# 857
Delta R.T. -0.000 min
Lab File: 4b105444.d
Acq: 10 Jul 2021 4:54 am

Tgt Ion: 96 Resp: 7910

Ion	Ratio	Lower	Upper
96	100		
61	141.7	110.2	170.2
98	63.7	35.5	95.5

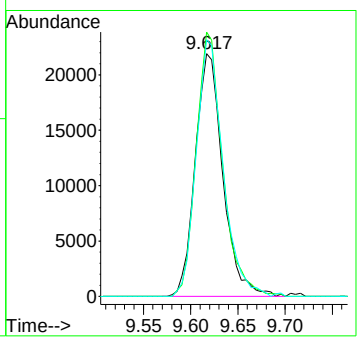




#61
trichloroethene
Concen: 17.93 ug/L
RT: 9.617 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 4b105444.d
Acq: 10 Jul 2021 4:54 am

Tgt Ion: 95 Resp: 44570

Ion	Ratio	Lower	Upper
95	100		
130	108.9	75.2	135.2
132	105.8	73.5	133.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105445.d
Acq On : 10 Jul 2021 5:23 am
Operator : EddieH
Sample : JD27695-3 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 46 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:56:25 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

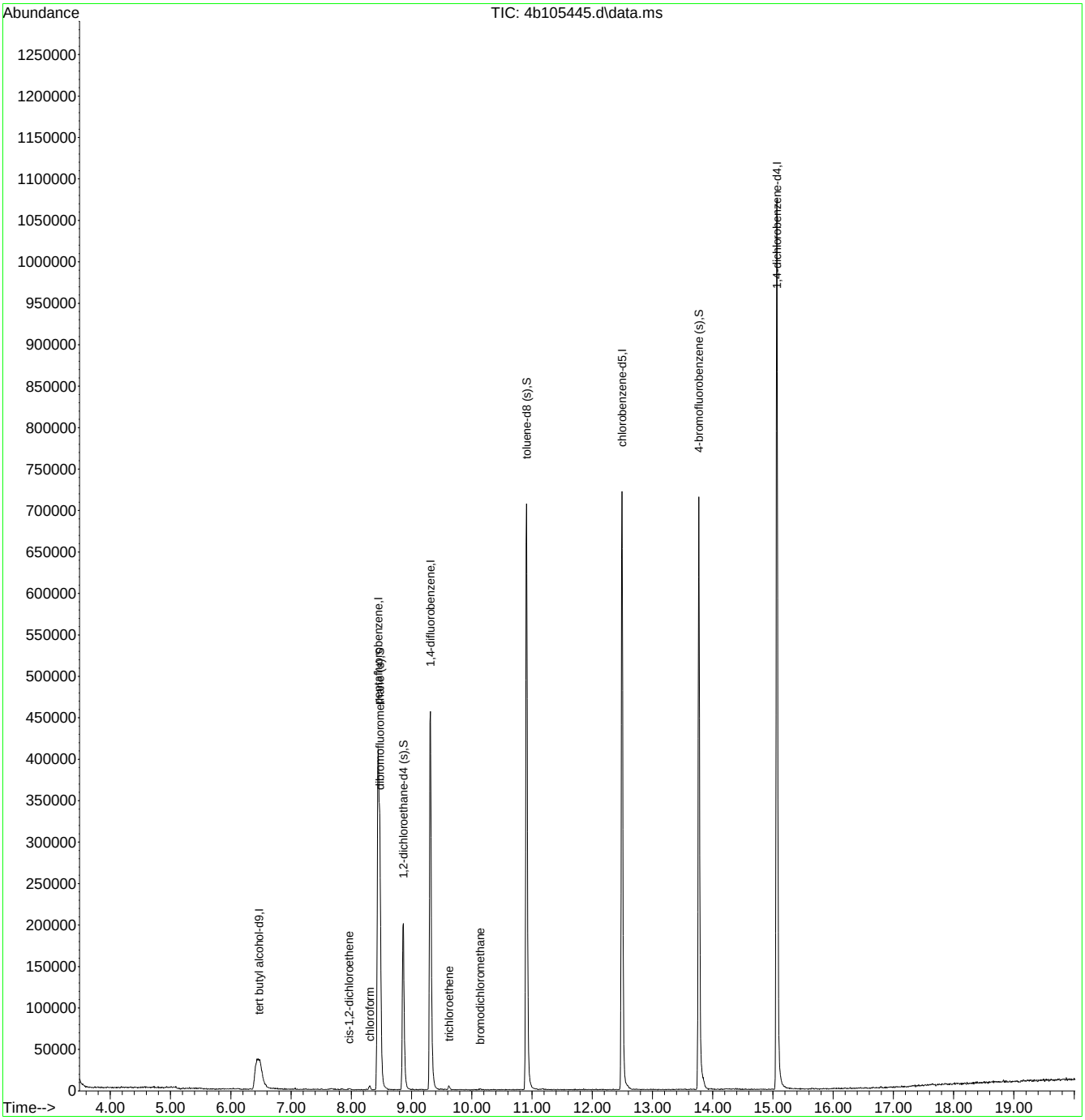
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.468	65	167144	500.00	ug/L	0.03
5) pentafluorobenzene	8.446	168	341125	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	424836	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	434638	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	329347	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	161011	53.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.42%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	169124	55.77	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 111.54%			
74) toluene-d8 (s)	10.909	98	518548	48.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.96%			
97) 4-bromofluorobenzene (s)	13.770	95	232652	48.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.20%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	7.964	96	922	0.32	ug/L #	70
42) chloroform	8.310	83	4324	0.88	ug/L	86
61) trichloroethene	9.622	95	2073	0.82	ug/L	87
67) bromodichloromethane	10.140	83	907	0.26	ug/L	81

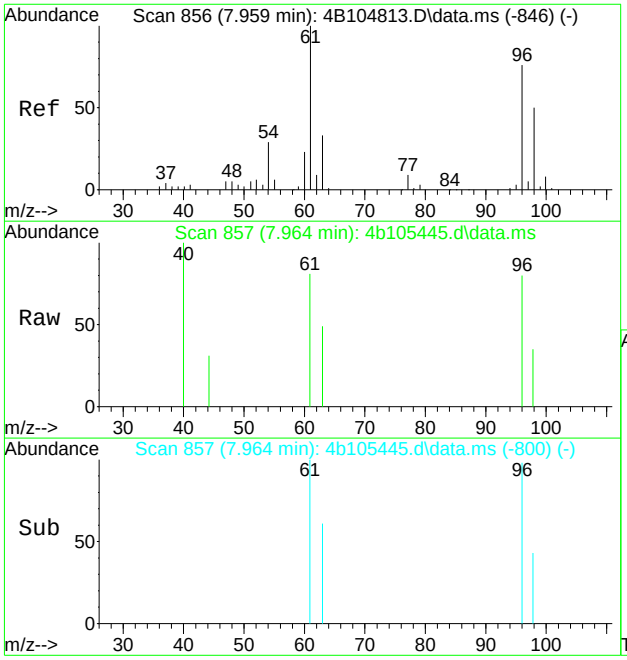
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105445.d
Acq On : 10 Jul 2021 5:23 am
Operator : EddieH
Sample : JD27695-3 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 46 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:56:25 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

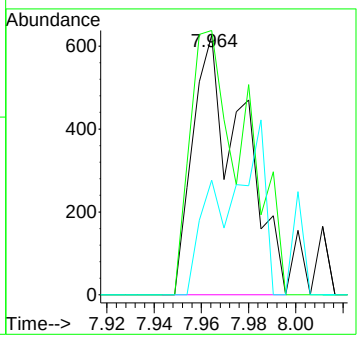


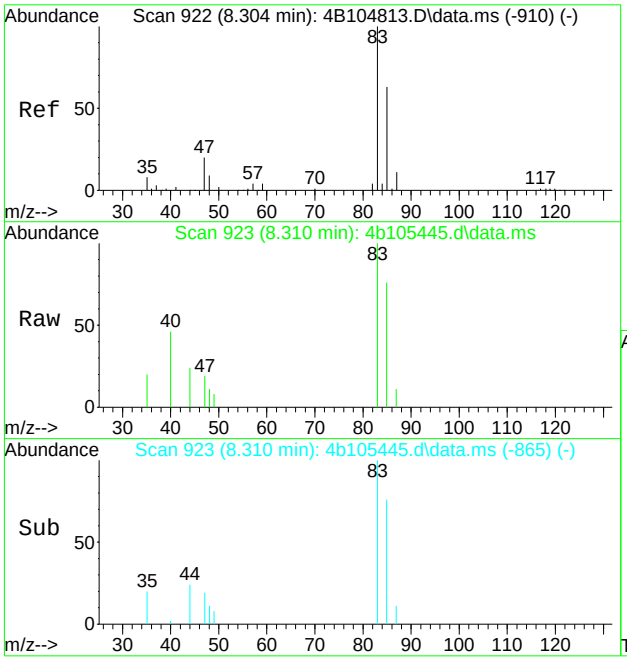


#36
cis-1,2-dichloroethene
Concen: 0.32 ug/L
RT: 7.964 min Scan# 857
Delta R.T. -0.000 min
Lab File: 4b105445.d
Acq: 10 Jul 2021 5:23 am

Tgt Ion: 96 Resp: 922

Ion	Ratio	Lower	Upper
96	100		
61	101.9	110.2	170.2#
98	44.2	35.5	95.5

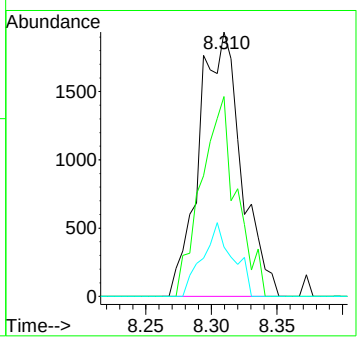


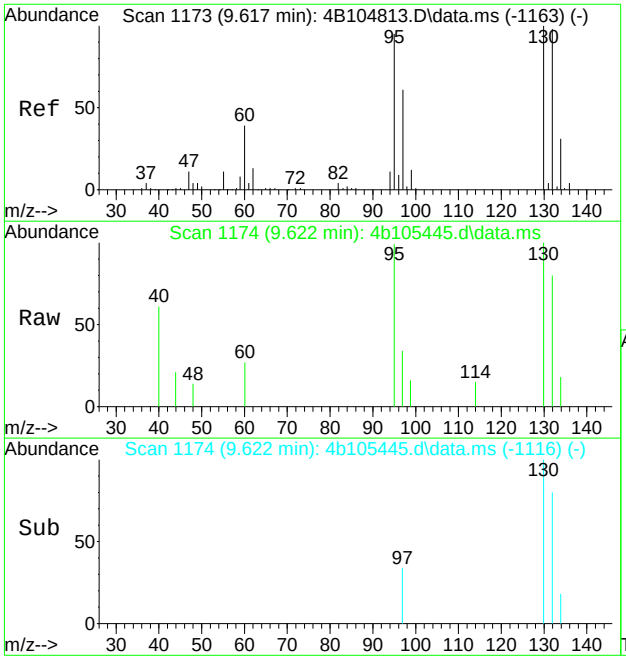


#42
chloroform
Concen: 0.88 ug/L
RT: 8.310 min Scan# 923
Delta R.T. 0.005 min
Lab File: 4b105445.d
Acq: 10 Jul 2021 5:23 am

Tgt Ion: 83 Resp: 4324

Ion	Ratio	Lower	Upper
83	100		
85	75.5	33.2	93.2
47	18.7	0.0	52.9

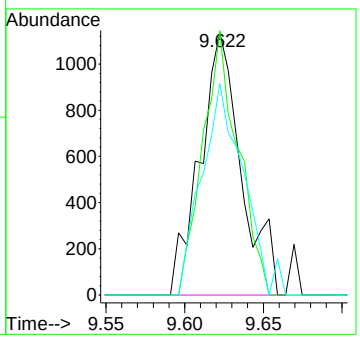


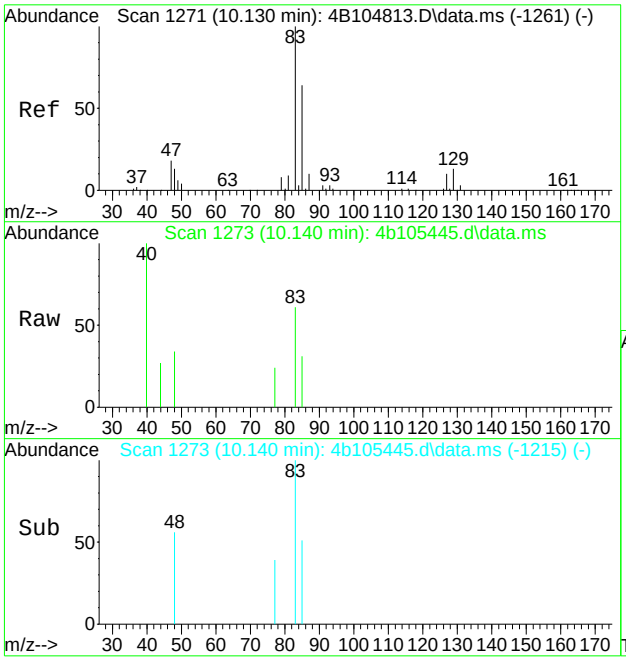


#61
trichloroethene
Concen: 0.82 ug/L
RT: 9.622 min Scan# 1174
Delta R.T. 0.005 min
Lab File: 4b105445.d
Acq: 10 Jul 2021 5:23 am

Tgt Ion: 95 Resp: 2073

Ion	Ratio	Lower	Upper
95	100		
130	100.8	75.2	135.2
132	80.6	73.5	133.5

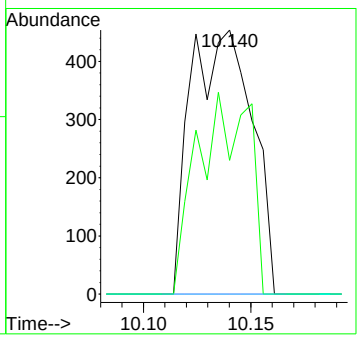




#67
bromodichloromethane
Concen: 0.26 ug/L
RT: 10.140 min Scan# 1273
Delta R.T. 0.005 min
Lab File: 4b105445.d
Acq: 10 Jul 2021 5:23 am

Tgt Ion: 83 Resp: 907

Ion	Ratio	Lower	Upper
83	100		
85	50.7	34.2	94.2
127	0.0	0.0	39.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105446.d
Acq On : 10 Jul 2021 5:51 am
Operator : EddieH
Sample : JD27695-4 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:58:02 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

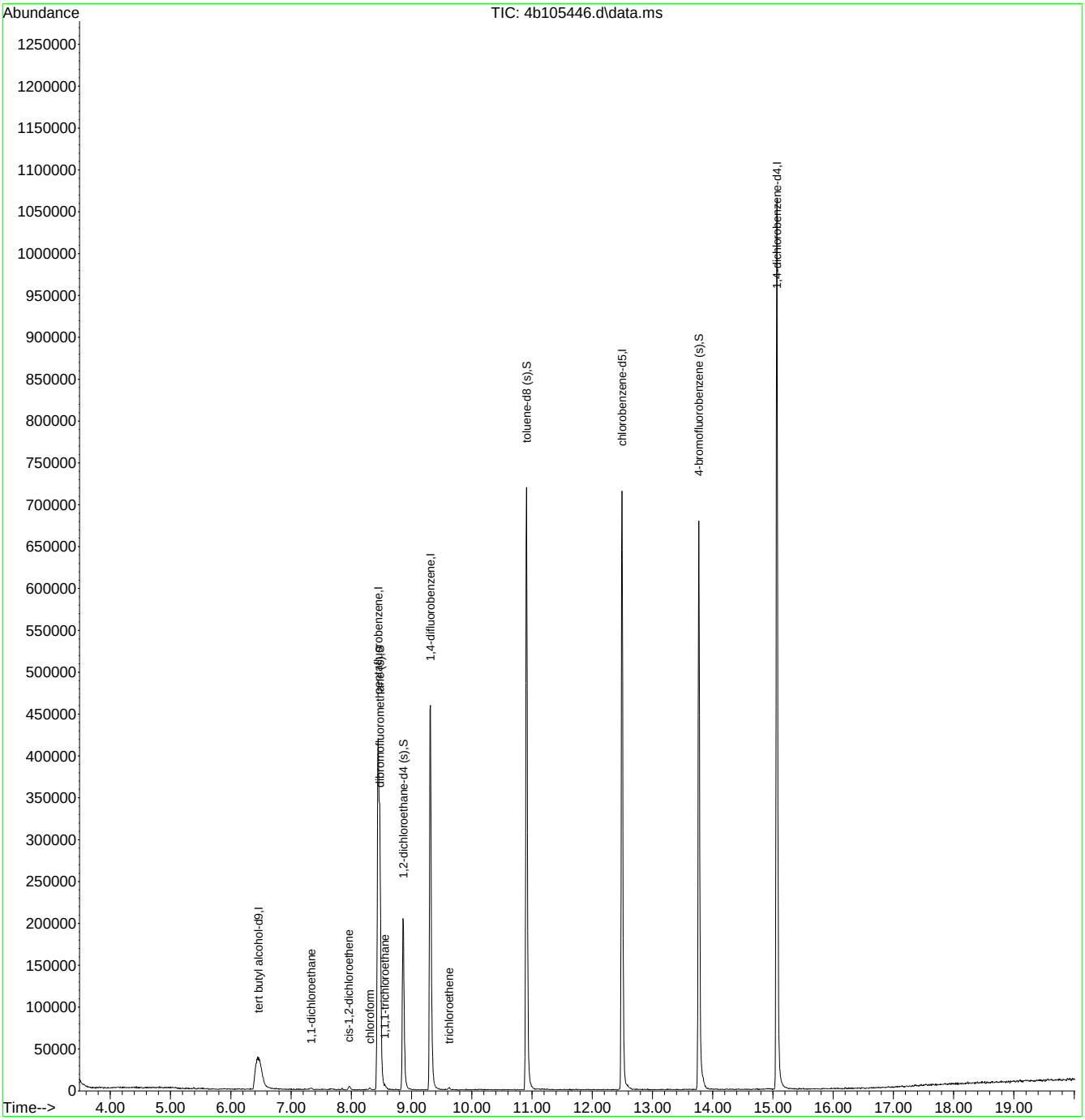
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.463	65	161795	500.00	ug/L	0.03
5) pentafluorobenzene	8.446	168	336779	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	422447	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	433294	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	325921	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	162247	54.31	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.62%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	171023	56.72	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 113.44%			
74) toluene-d8 (s)	10.909	98	517600	49.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.08%			
97) 4-bromofluorobenzene (s)	13.770	95	229957	48.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.08%			
Target Compounds						Qvalue
29) 1,1-dichloroethane	7.337	63	2553	0.54	ug/L	76
36) cis-1,2-dichloroethene	7.959	96	2304	0.82	ug/L #	67
42) chloroform	8.310	83	2157	0.44	ug/L	83
45) 1,1,1-trichloroethane	8.555	97	2447	0.42	ug/L	83
61) trichloroethene	9.622	95	948	0.38	ug/L #	76

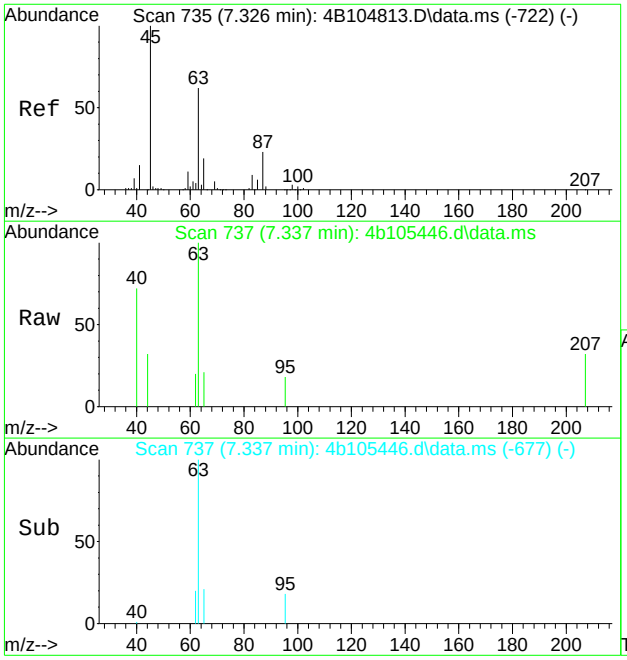
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105446.d
Acq On : 10 Jul 2021 5:51 am
Operator : EddieH
Sample : JD27695-4 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:58:02 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

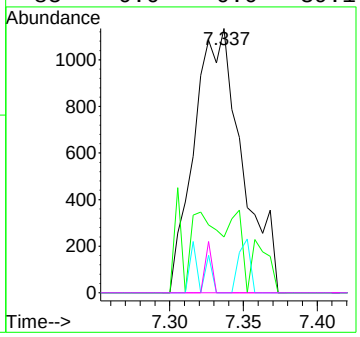


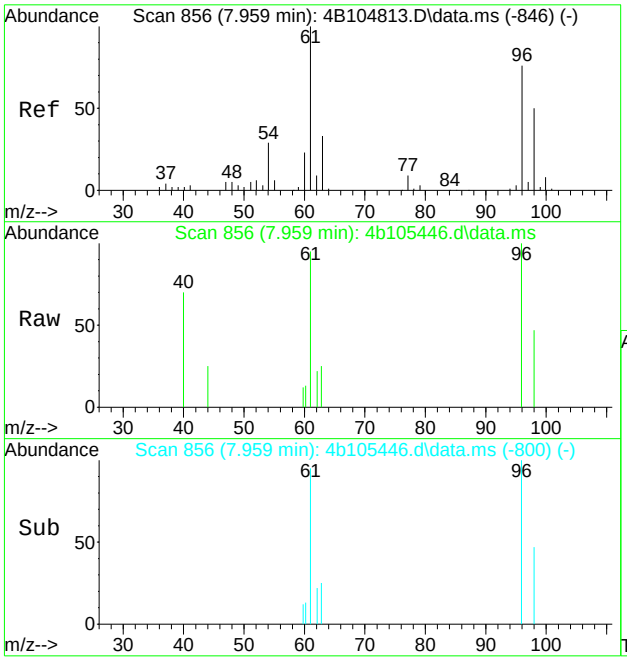


#29
1,1-dichloroethane
Concen: 0.54 ug/L
RT: 7.337 min Scan# 737
Delta R.T. 0.016 min
Lab File: 4b105446.d
Acq: 10 Jul 2021 5:51 am

Tgt Ion: 63 Resp: 2553

Ion	Ratio	Lower	Upper
63	100		
65	21.1	1.5	61.5
83	0.0	0.0	44.0
85	0.0	0.0	39.1

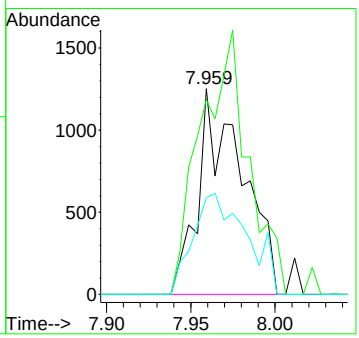


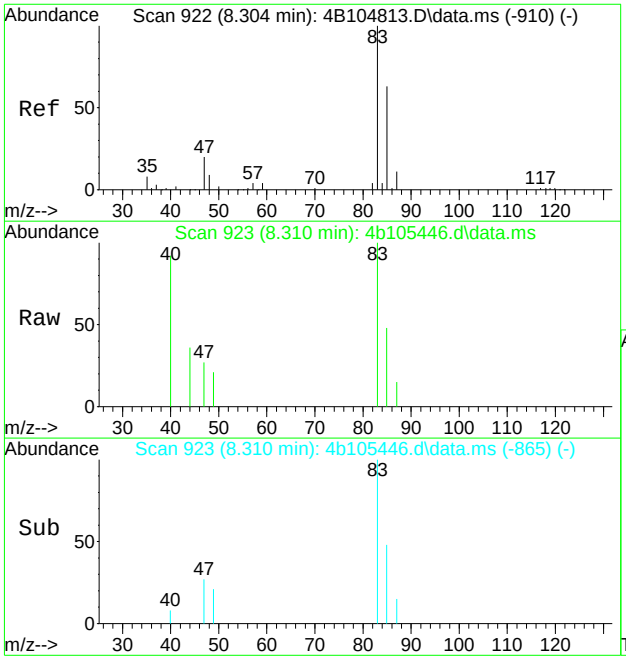


#36
cis-1,2-dichloroethene
Concen: 0.82 ug/L
RT: 7.959 min Scan# 856
Delta R.T. -0.005 min
Lab File: 4b105446.d
Acq: 10 Jul 2021 5:51 am

Tgt Ion: 96 Resp: 2304

Ion	Ratio	Lower	Upper
96	100		
61	94.8	110.2	170.2#
98	47.0	35.5	95.5

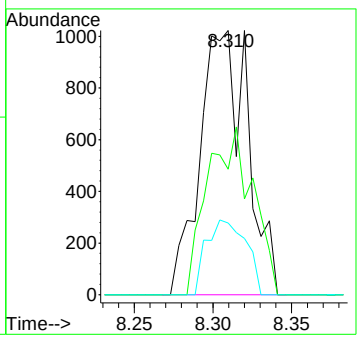


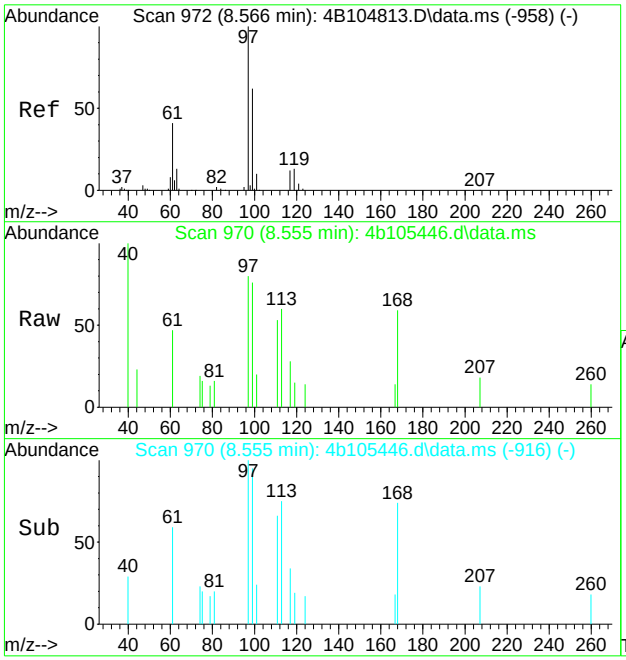


#42
chloroform
Concen: 0.44 ug/L
RT: 8.310 min Scan# 923
Delta R.T. 0.005 min
Lab File: 4b105446.d
Acq: 10 Jul 2021 5:51 am

Tgt Ion: 83 Resp: 2157

Ion	Ratio	Lower	Upper
83	100		
85	47.5	33.2	93.2
47	27.1	0.0	52.9

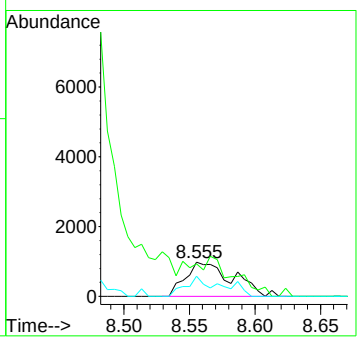


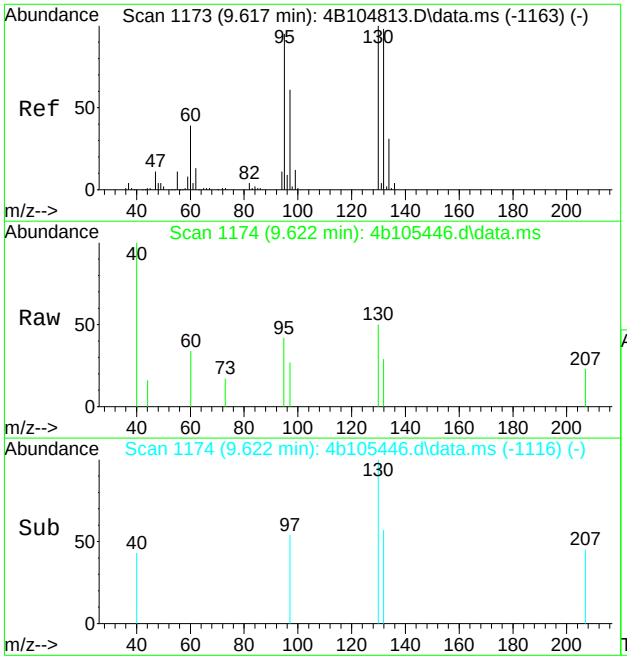


#45
1,1,1-trichloroethane
Concen: 0.42 ug/L
RT: 8.555 min Scan# 970
Delta R.T. -0.016 min
Lab File: 4b105446.d
Acq: 10 Jul 2021 5:51 am

Tgt Ion: 97 Resp: 2447

Ion	Ratio	Lower	Upper
97	100		
99	71.5	34.5	94.5
61	59.3	11.1	71.1

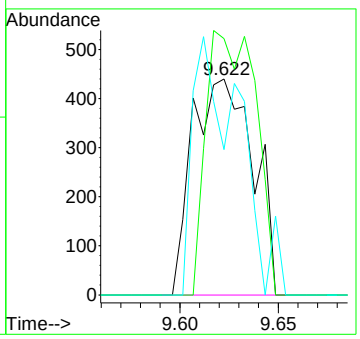




#61
trichloroethene
Concen: 0.38 ug/L
RT: 9.622 min Scan# 1174
Delta R.T. 0.005 min
Lab File: 4b105446.d
Acq: 10 Jul 2021 5:51 am

Tgt Ion: 95 Resp: 948

Ion	Ratio	Lower	Upper
95	100		
130	118.6	75.2	135.2
132	67.3	73.5	133.5#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105447.d
Acq On : 10 Jul 2021 6:19 am
Operator : EddieH
Sample : JD27695-5 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:59:31 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

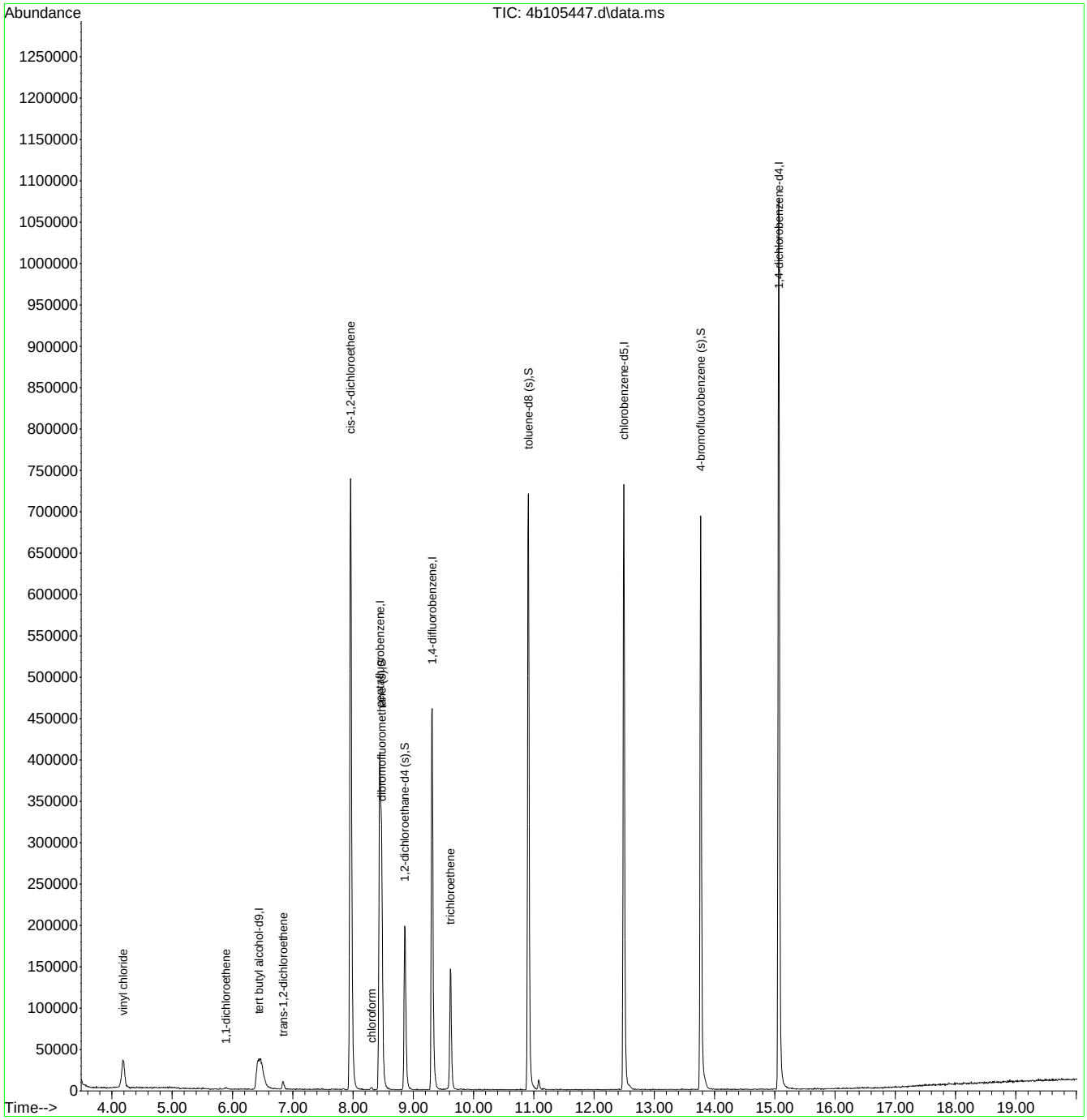
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.437	65	159360	500.00	ug/L	0.00
5) pentafluorobenzene	8.446	168	332086	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	424190	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	434475	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	325751	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	159629	54.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.38%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	171859	56.76	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 113.52%			
74) toluene-d8 (s)	10.909	98	526405	49.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.48%			
97) 4-bromofluorobenzene (s)	13.770	95	230465	48.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.34%			
Target Compounds						Qvalue
9) vinyl chloride	4.183	62	70494	12.24	ug/L	96
17) 1,1-dichloroethene	5.888	61	1476	0.35	ug/L #	61
25) trans-1,2-dichloroethene	6.840	61	6832	1.76	ug/L	90
36) cis-1,2-dichloroethene	7.959	96	373562	134.93	ug/L	95
42) chloroform	8.310	83	2841	0.59	ug/L	96
61) trichloroethene	9.617	95	51735	20.51	ug/L	98

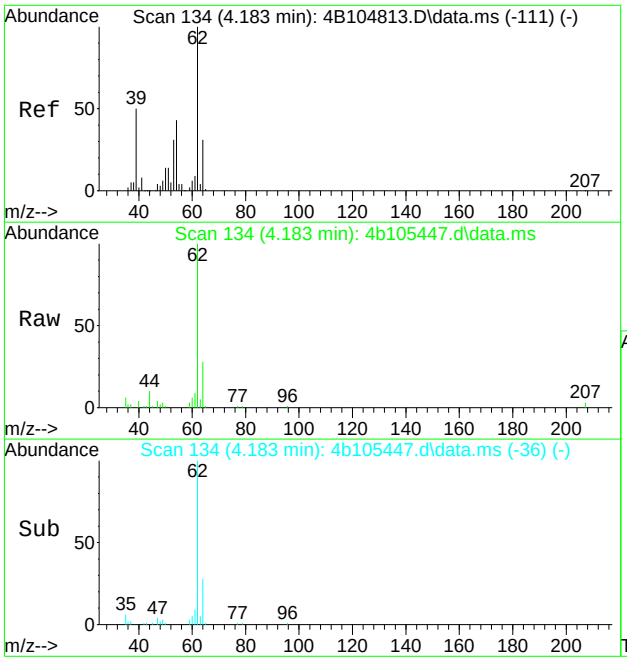
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105447.d
Acq On : 10 Jul 2021 6:19 am
Operator : EddieH
Sample : JD27695-5 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:59:31 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

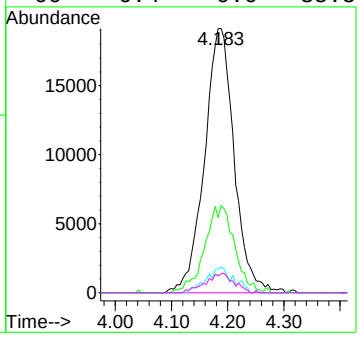


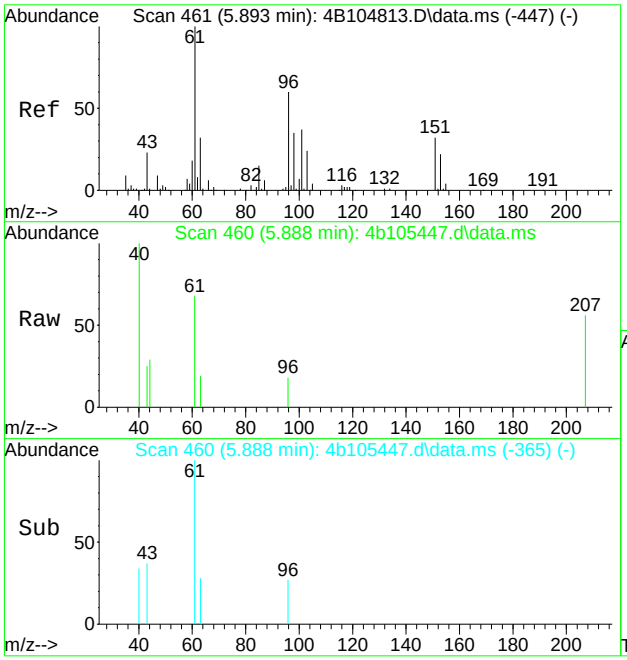


#9
vinyl chloride
Concen: 12.24 ug/L
RT: 4.183 min Scan# 134
Delta R.T. 0.010 min
Lab File: 4b105447.d
Acq: 10 Jul 2021 6:19 am

Tgt Ion: 62 Resp: 70494

Ion	Ratio	Lower	Upper
62	100		
64	28.5	0.8	60.8
61	9.1	0.0	38.6
60	6.4	0.0	35.5

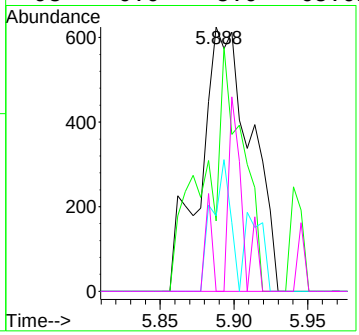


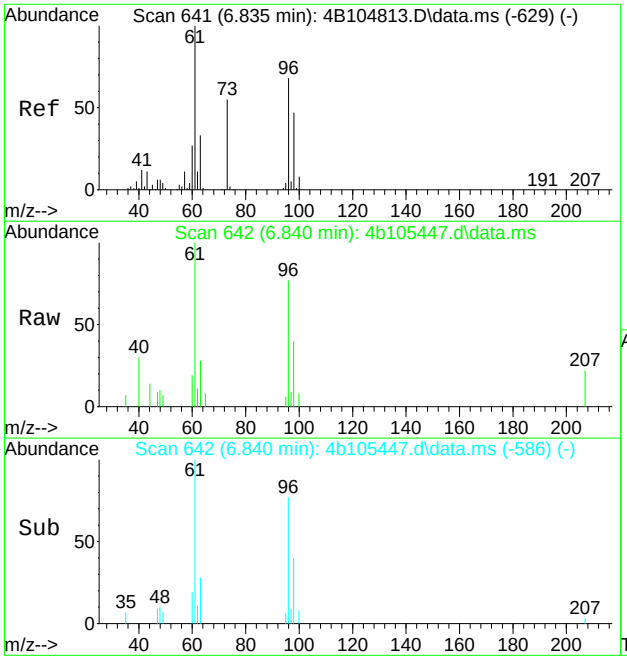


#17
1,1-dichloroethene
Concen: 0.35 ug/L
RT: 5.888 min Scan# 460
Delta R.T. -0.005 min
Lab File: 4b105447.d
Acq: 10 Jul 2021 6:19 am

Tgt Ion: 61 Resp: 1476

Ion	Ratio	Lower	Upper
61	100		
96	26.6	30.2	90.2#
63	28.5	1.9	61.9
98	0.0	5.0	65.0#

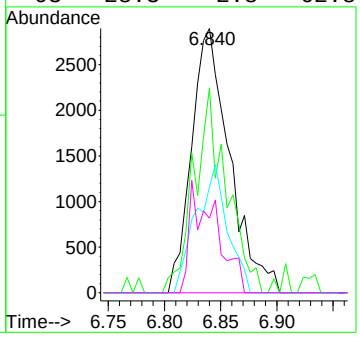


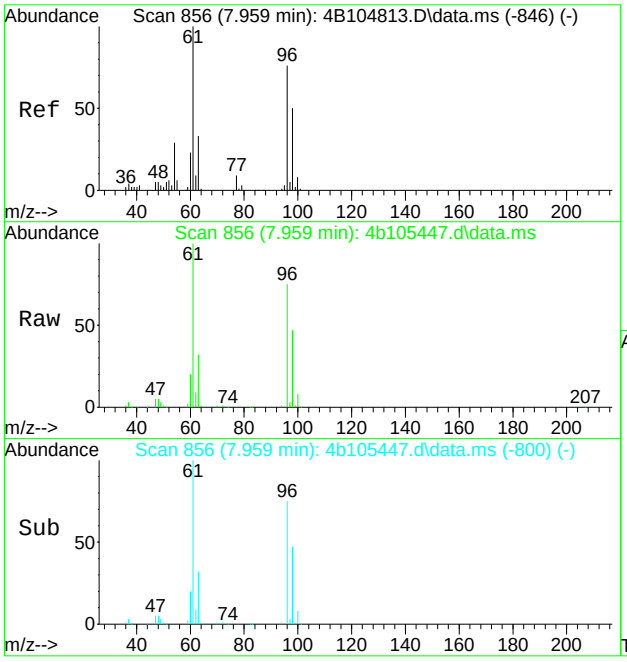


#25
trans-1,2-dichloroethene
Concen: 1.76 ug/L
RT: 6.840 min Scan# 642
Delta R.T. -0.005 min
Lab File: 4b105447.d
Acq: 10 Jul 2021 6:19 am

Tgt Ion: 61 Resp: 6832

Ion	Ratio	Lower	Upper
61	100		
96	77.4	38.2	98.2
98	40.0	17.1	77.1
63	28.3	2.8	62.8

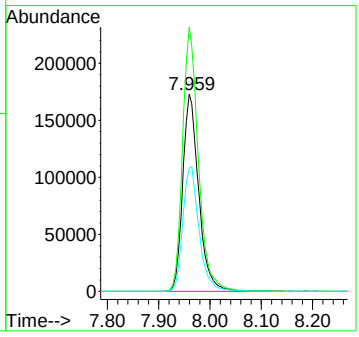


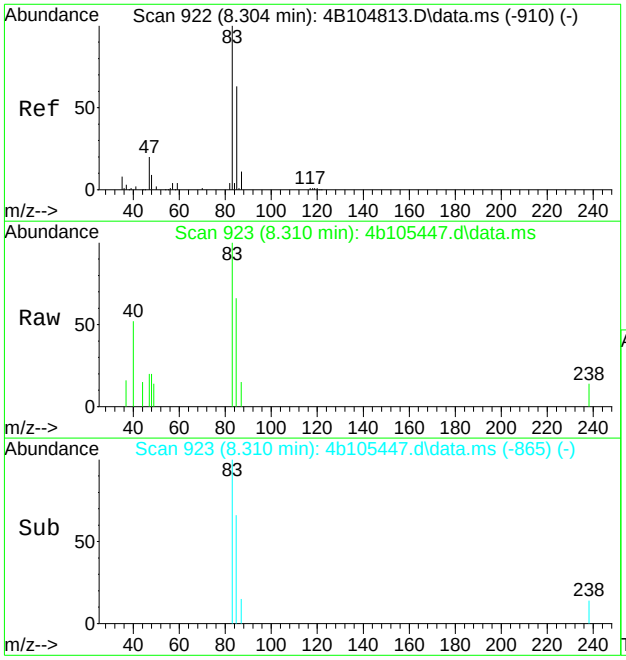


#36
cis-1,2-dichloroethene
Concen: 134.93 ug/L
RT: 7.959 min Scan# 856
Delta R.T. -0.005 min
Lab File: 4b105447.d
Acq: 10 Jul 2021 6:19 am

Tgt Ion: 96 Resp: 373562

Ion	Ratio	Lower	Upper
96	100		
61	134.0	110.2	170.2
98	62.4	35.5	95.5

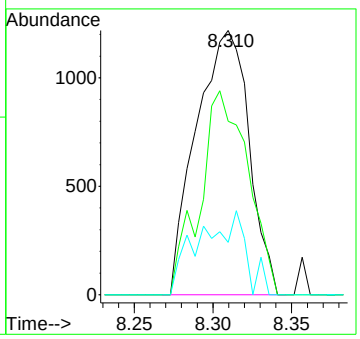


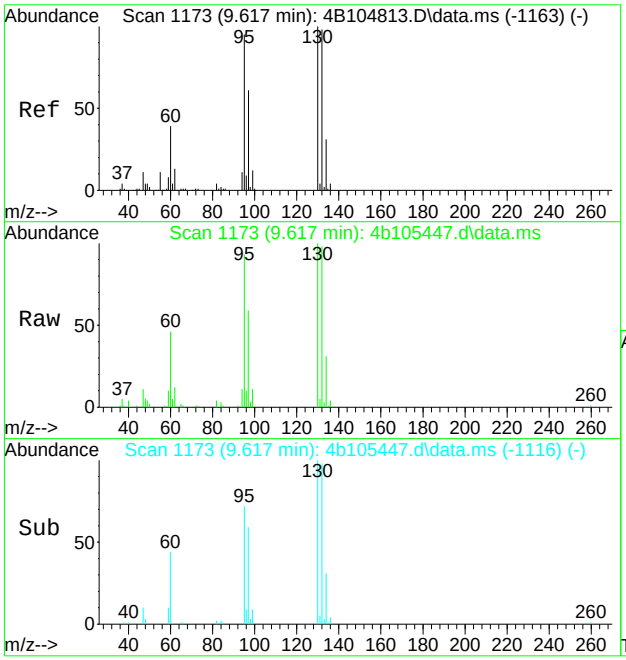


#42
chloroform
Concen: 0.59 ug/L
RT: 8.310 min Scan# 923
Delta R.T. 0.005 min
Lab File: 4b105447.d
Acq: 10 Jul 2021 6:19 am

Tgt Ion: 83 Resp: 2841

Ion	Ratio	Lower	Upper
83	100		
85	65.6	33.2	93.2
47	19.8	0.0	52.9

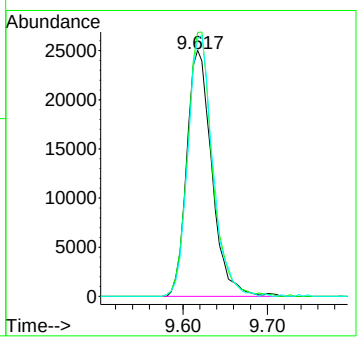




#61
trichloroethene
Concen: 20.51 ug/L
RT: 9.617 min Scan# 1173
Delta R.T. 0.000 min
Lab File: 4b105447.d
Acq: 10 Jul 2021 6:19 am

Tgt Ion: 95 Resp: 51735

Ion	Ratio	Lower	Upper
95	100		
130	107.3	75.2	135.2
132	104.8	73.5	133.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105458.d
Acq On : 12 Jul 2021 11:05 am
Operator : EddieH
Sample : JD27695-6 Inst : MS4B
Misc : MS52079,V4B4568,W,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:19:26 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

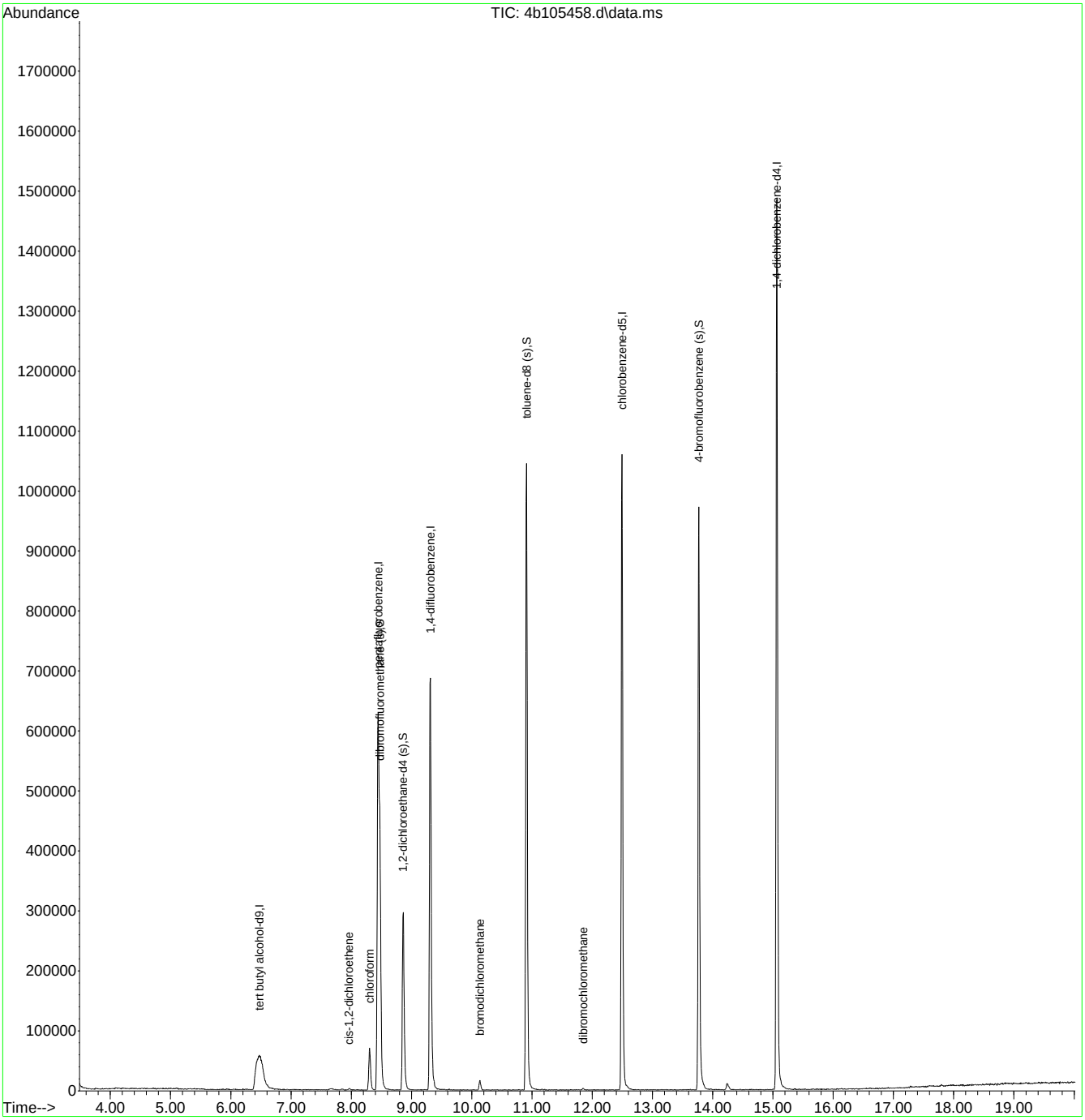
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.474	65	272046	500.00	ug/L	0.04
5) pentafluorobenzene	8.446	168	513237	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	628705	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	634911	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	448037	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.472	113	229532	50.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	249663	55.63	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 111.26%			
74) toluene-d8 (s)	10.909	98	742294	47.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.98%			
97) 4-bromofluorobenzene (s)	13.770	95	324431	49.30	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.60%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	7.959	96	1437	0.34	ug/L	# 47
42) chloroform	8.304	83	59058	7.94	ug/L	94
67) bromodichloromethane	10.135	83	11118	2.16	ug/L	91
83) dibromochloromethane	11.850	129	1880	0.44	ug/L	94

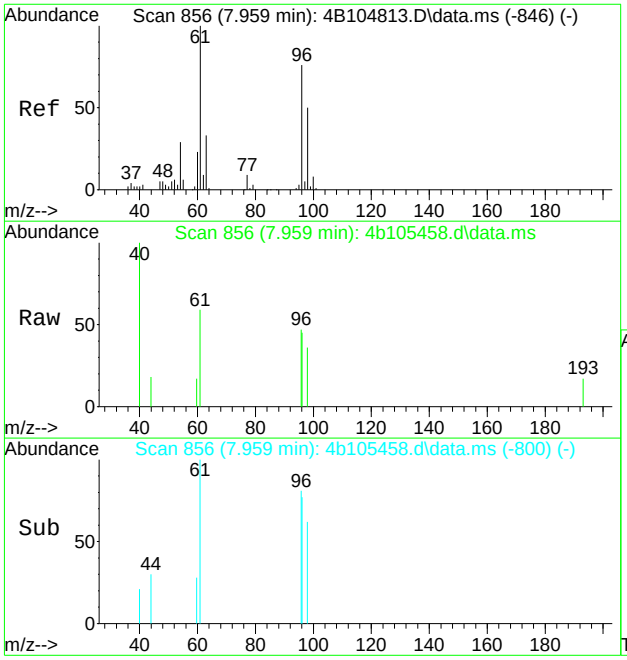
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105458.d
Acq On : 12 Jul 2021 11:05 am
Operator : EddieH
Sample : JD27695-6 Inst : MS4B
Misc : MS52079,V4B4568,W,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:19:26 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

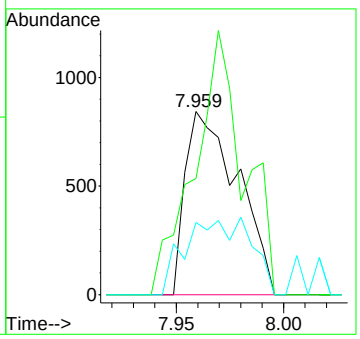


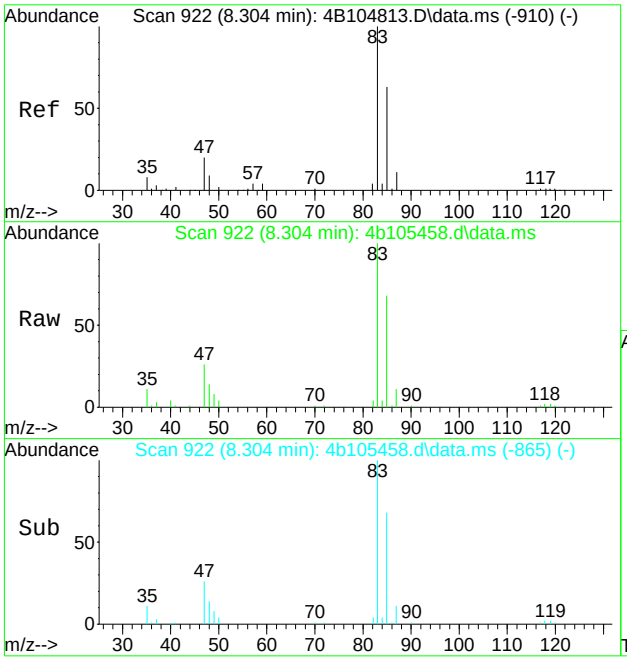


#36
cis-1,2-dichloroethene
Concen: 0.34 ug/L
RT: 7.959 min Scan# 856
Delta R.T. -0.005 min
Lab File: 4b105458.d
Acq: 12 Jul 2021 11:05 am

Tgt Ion: 96 Resp: 1437

Ion	Ratio	Lower	Upper
96	100		
61	63.5	110.2	170.2#
98	39.5	35.5	95.5

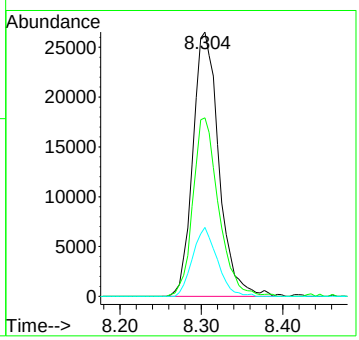


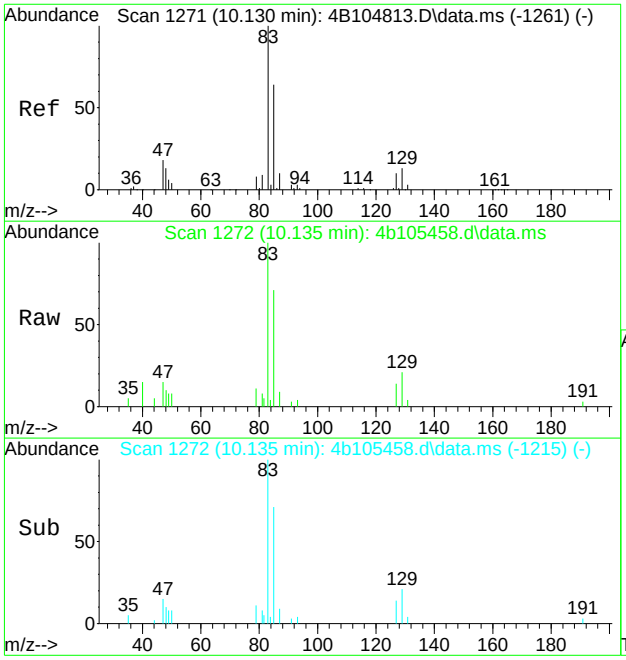


#42
chloroform
Concen: 7.94 ug/L
RT: 8.304 min Scan# 922
Delta R.T. -0.000 min
Lab File: 4b105458.d
Acq: 12 Jul 2021 11:05 am

Tgt Ion: 83 Resp: 59058

Ion	Ratio	Lower	Upper
83	100		
85	67.6	33.2	93.2
47	26.1	0.0	52.9

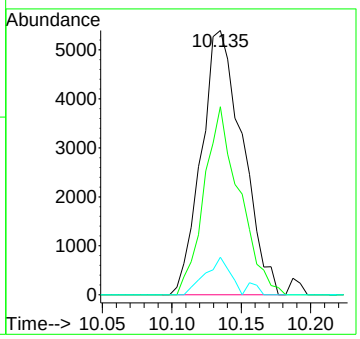


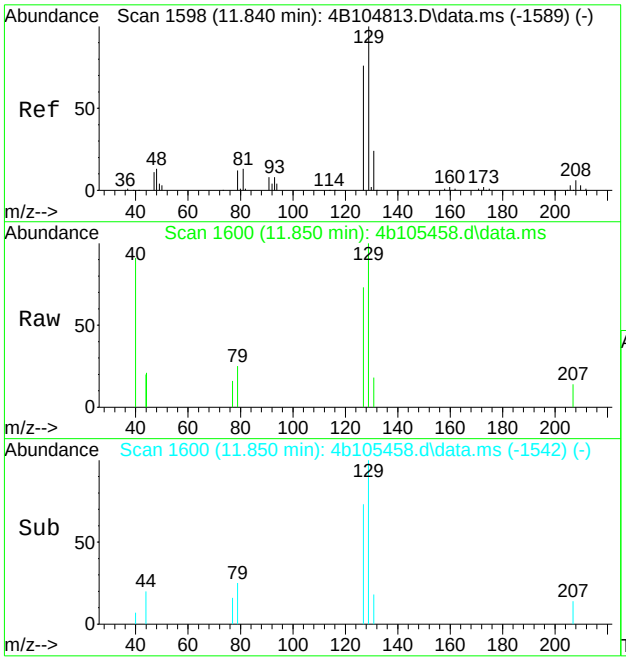


#67
bromodichloromethane
Concen: 2.16 ug/L
RT: 10.135 min Scan# 1272
Delta R.T. -0.000 min
Lab File: 4b105458.d
Acq: 12 Jul 2021 11:05 am

Tgt Ion: 83 Resp: 11118

Ion	Ratio	Lower	Upper
83	100		
85	71.1	34.2	94.2
127	14.2	0.0	39.9

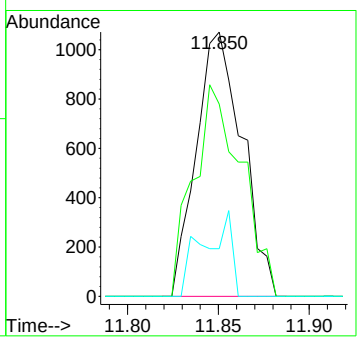




#83
dibromochloromethane
Concen: 0.44 ug/L
RT: 11.850 min Scan# 1600
Delta R.T. 0.005 min
Lab File: 4b105458.d
Acq: 12 Jul 2021 11:05 am

Tgt Ion:129 Resp: 1880

Ion	Ratio	Lower	Upper
129	100		
127	72.7	45.9	105.9
131	18.1	0.0	54.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105449.d
Acq On : 10 Jul 2021 7:16 am
Operator : EddieH
Sample : JD27695-7 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 12:01:08 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

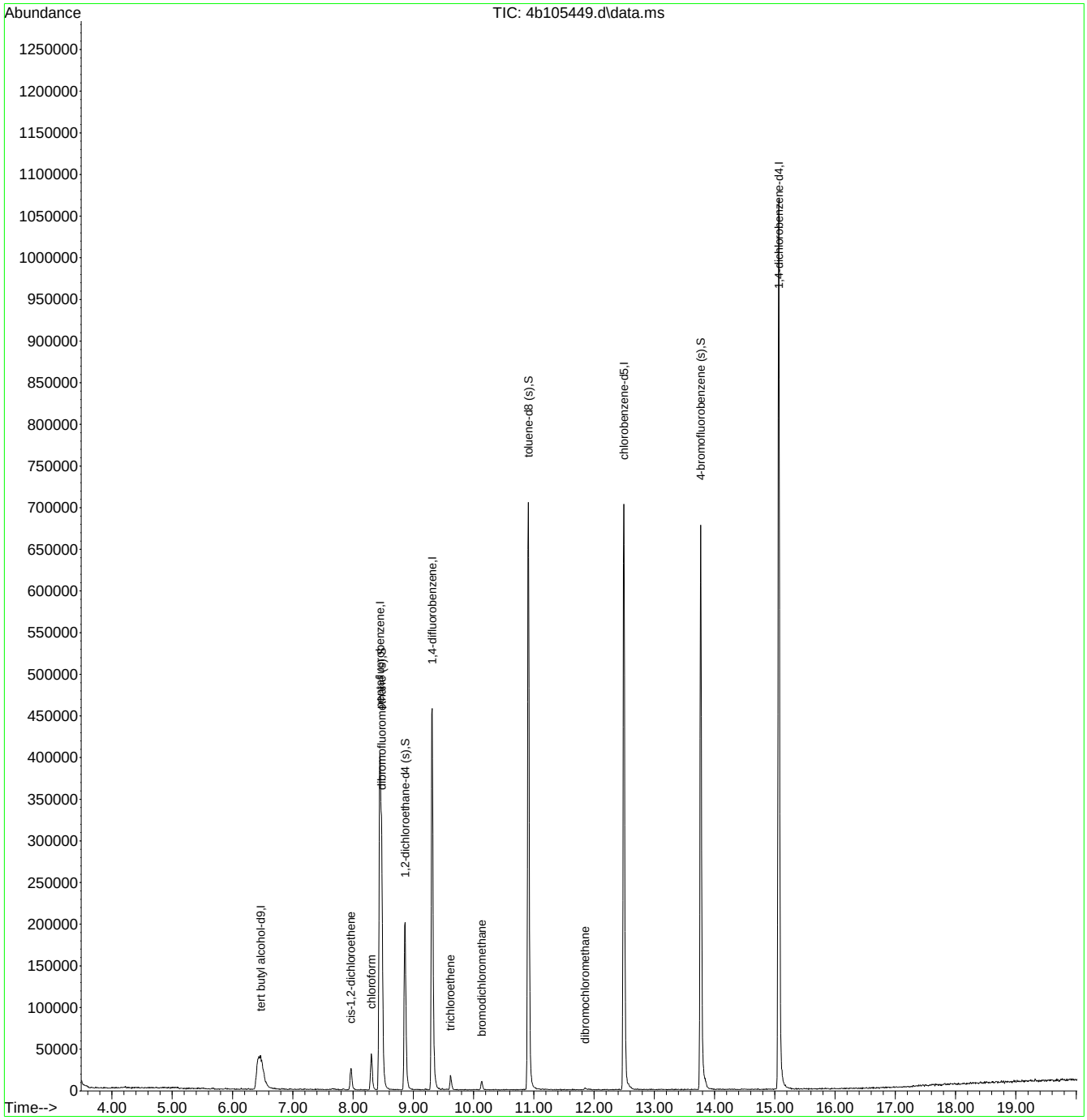
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.469	65	171664	500.00	ug/L	0.03
5) pentafluorobenzene	8.446	168	331366	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	416214	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	432161	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	323620	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	160193	54.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.00%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	172133	57.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 115.88%			
74) toluene-d8 (s)	10.909	98	509429	48.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.78%			
97) 4-bromofluorobenzene (s)	13.770	95	229341	48.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.50%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	7.964	96	13343	4.83	ug/L	85
42) chloroform	8.304	83	36819	7.67	ug/L	98
61) trichloroethene	9.617	95	5850	2.36	ug/L	95
67) bromodichloromethane	10.135	83	7427	2.18	ug/L	81
83) dibromochloromethane	11.850	129	1253	0.43	ug/L	82

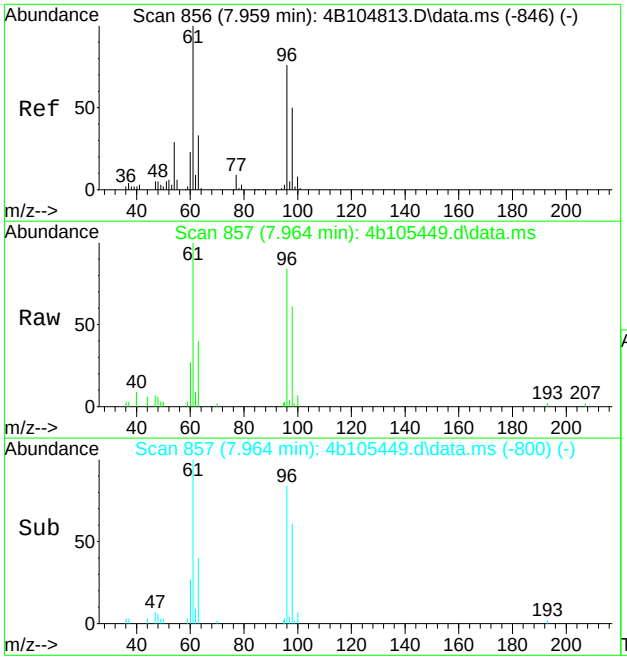
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105449.d
Acq On : 10 Jul 2021 7:16 am
Operator : EddieH
Sample : JD27695-7 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 12:01:08 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

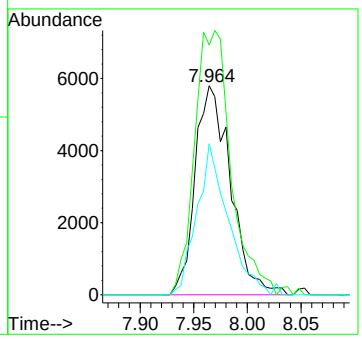


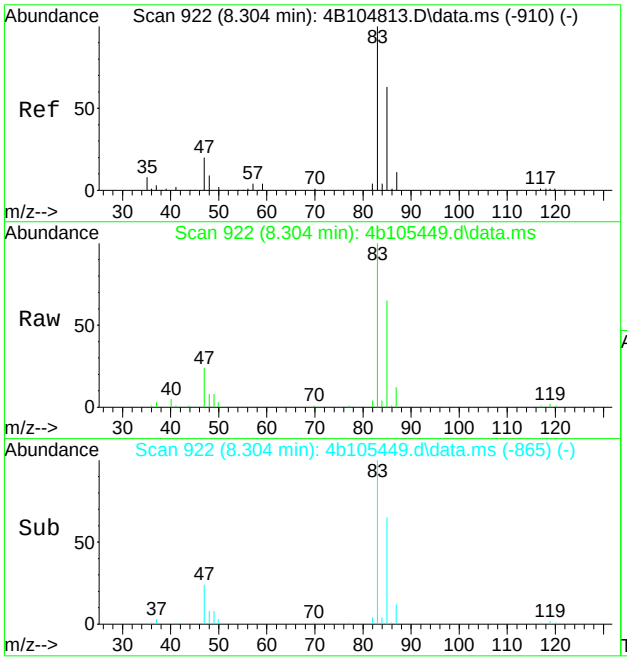


#36
cis-1,2-dichloroethene
Concen: 4.83 ug/L
RT: 7.964 min Scan# 857
Delta R.T. -0.000 min
Lab File: 4b105449.d
Acq: 10 Jul 2021 7:16 am

Tgt Ion: 96 Resp: 13343

Ion	Ratio	Lower	Upper
96	100		
61	119.4	110.2	170.2
98	74.9	35.5	95.5

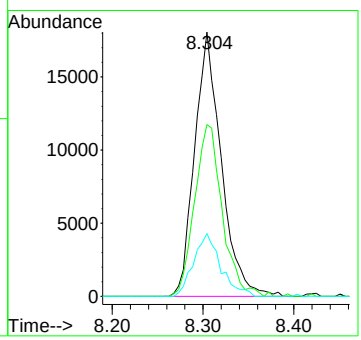


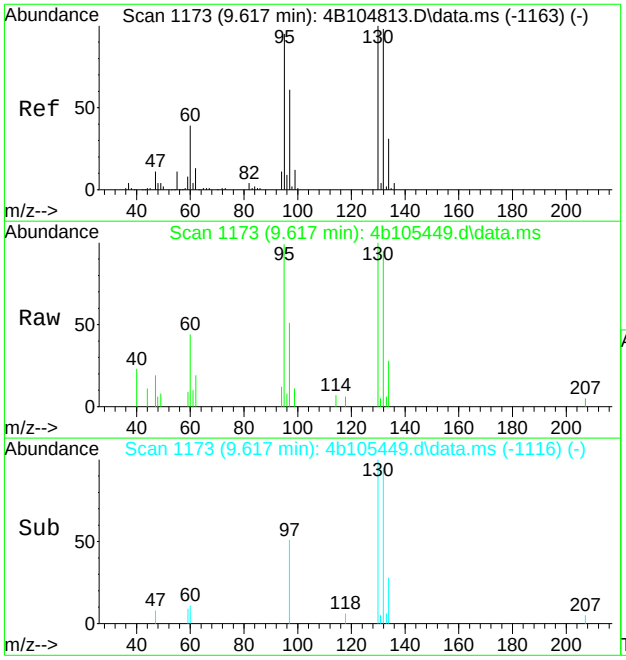


#42
chloroform
Concen: 7.67 ug/L
RT: 8.304 min Scan# 922
Delta R.T. -0.000 min
Lab File: 4b105449.d
Acq: 10 Jul 2021 7:16 am

Tgt Ion: 83 Resp: 36819

Ion	Ratio	Lower	Upper
83	100		
85	65.0	33.2	93.2
47	23.8	0.0	52.9

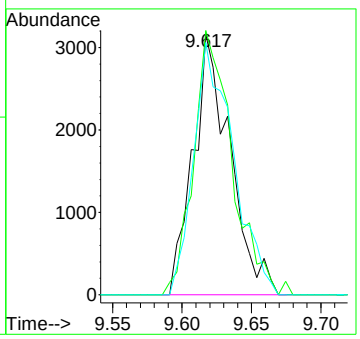


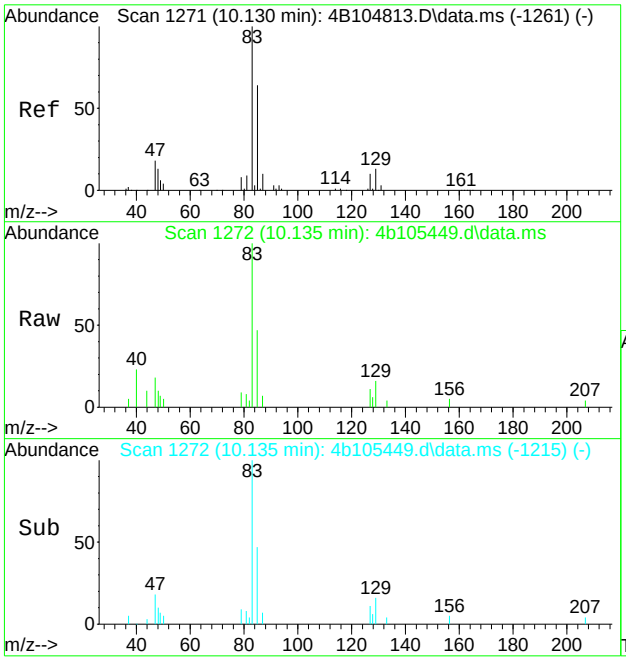


#61
trichloroethene
Concen: 2.36 ug/L
RT: 9.617 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 4b105449.d
Acq: 10 Jul 2021 7:16 am

Tgt Ion: 95 Resp: 5850

Ion	Ratio	Lower	Upper
95	100		
130	101.5	75.2	135.2
132	96.9	73.5	133.5

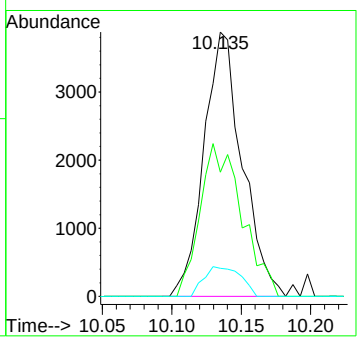


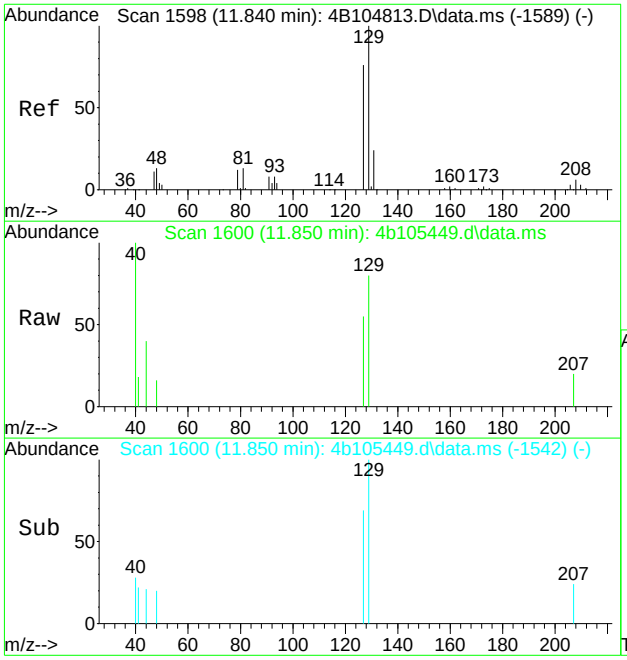


#67
bromodichloromethane
Concen: 2.18 ug/L
RT: 10.135 min Scan# 1272
Delta R.T. -0.000 min
Lab File: 4b105449.d
Acq: 10 Jul 2021 7:16 am

Tgt Ion: 83 Resp: 7427

Ion	Ratio	Lower	Upper
83	100		
85	47.0	34.2	94.2
127	10.6	0.0	39.9

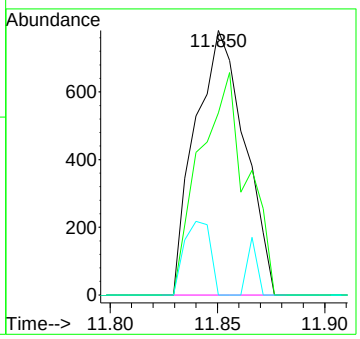




#83
dibromochloromethane
Concen: 0.43 ug/L
RT: 11.850 min Scan# 1600
Delta R.T. 0.005 min
Lab File: 4b105449.d
Acq: 10 Jul 2021 7:16 am

Tgt Ion:129 Resp: 1253

Ion	Ratio	Lower	Upper
129	100		
127	68.8	45.9	105.9
131	0.0	0.0	54.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105432.d
Acq On : 9 Jul 2021 11:15 pm
Operator : EddieH
Sample : JD27695-8 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:43:23 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

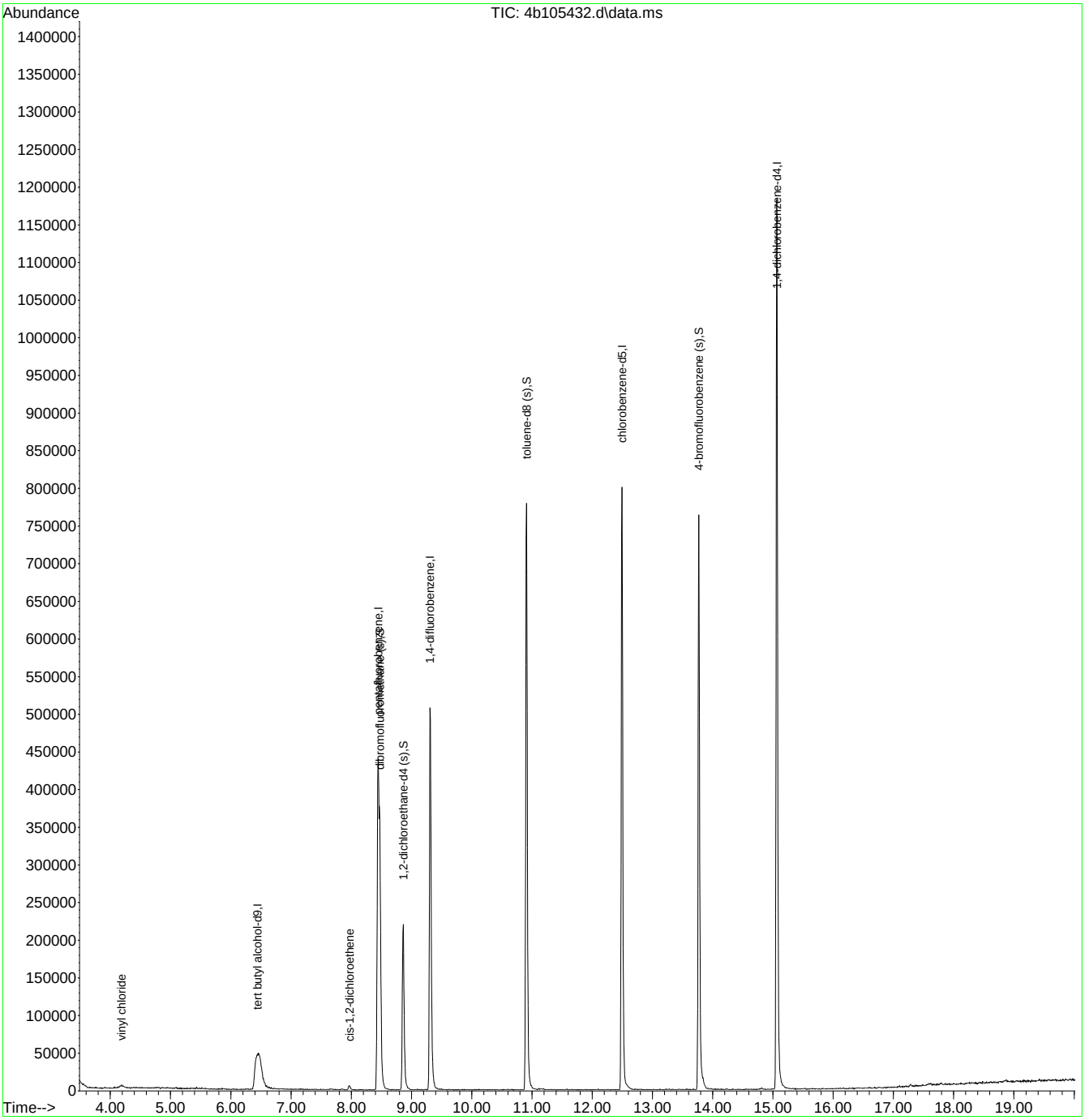
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.442	65	210284	500.00	ug/L	0.00
5) pentafluorobenzene	8.446	168	368793	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.309	114	464777	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	492204	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	362754	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.472	113	175929	53.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.56%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	183826	55.41	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 110.82%			
74) toluene-d8 (s)	10.909	98	570935	47.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.24%			
97) 4-bromofluorobenzene (s)	13.770	95	257143	48.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.54%			
Target Compounds						Qvalue
9) vinyl chloride	4.188	62	6038	0.94	ug/L	75
36) cis-1,2-dichloroethene	7.970	96	3201	1.04	ug/L #	67

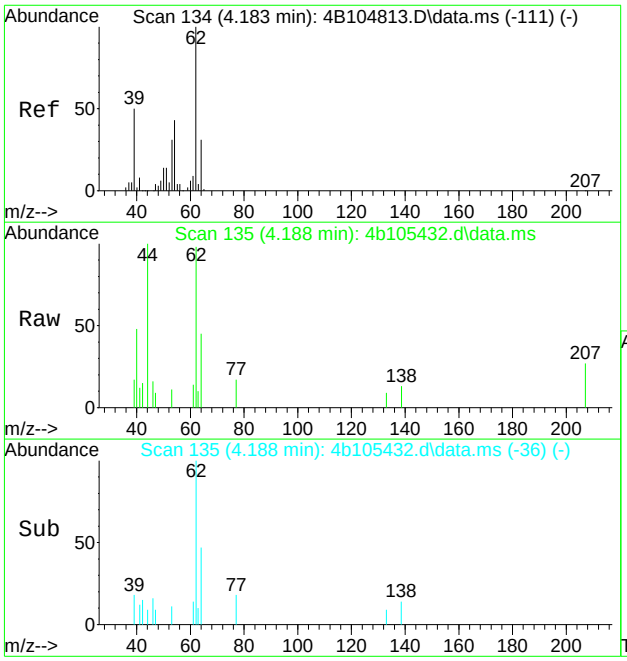
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105432.d
Acq On : 9 Jul 2021 11:15 pm
Operator : EddieH
Sample : JD27695-8 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:43:23 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

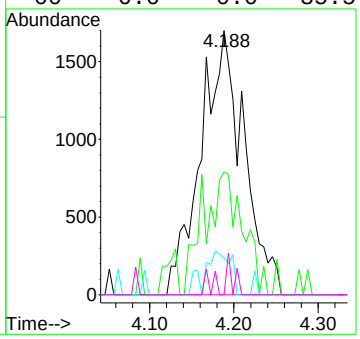


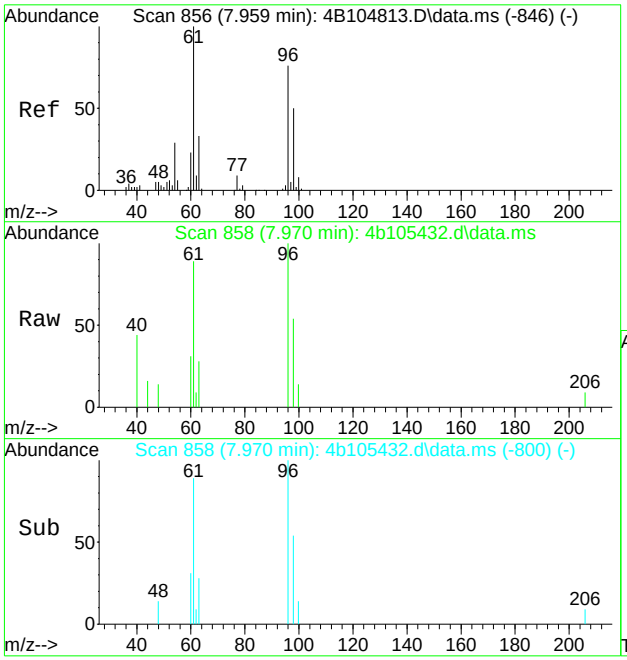


#9
vinyl chloride
Concen: 0.94 ug/L
RT: 4.188 min Scan# 135
Delta R.T. 0.016 min
Lab File: 4b105432.d
Acq: 9 Jul 2021 11:15 pm

Tgt Ion: 62 Resp: 6038

Ion	Ratio	Lower	Upper
62	100		
64	46.5	0.8	60.8
61	14.0	0.0	38.6
60	0.0	0.0	35.5

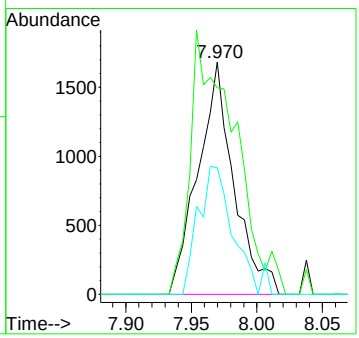




#36
cis-1,2-dichloroethene
Concen: 1.04 ug/L
RT: 7.970 min Scan# 858
Delta R.T. 0.005 min
Lab File: 4b105432.d
Acq: 9 Jul 2021 11:15 pm

Tgt Ion: 96 Resp: 3201

Ion	Ratio	Lower	Upper
96	100		
61	88.9	110.2	170.2#
98	54.5	35.5	95.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105436.d
Acq On : 10 Jul 2021 1:09 am
Operator : EddieH
Sample : JD27695-9 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:45:05 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

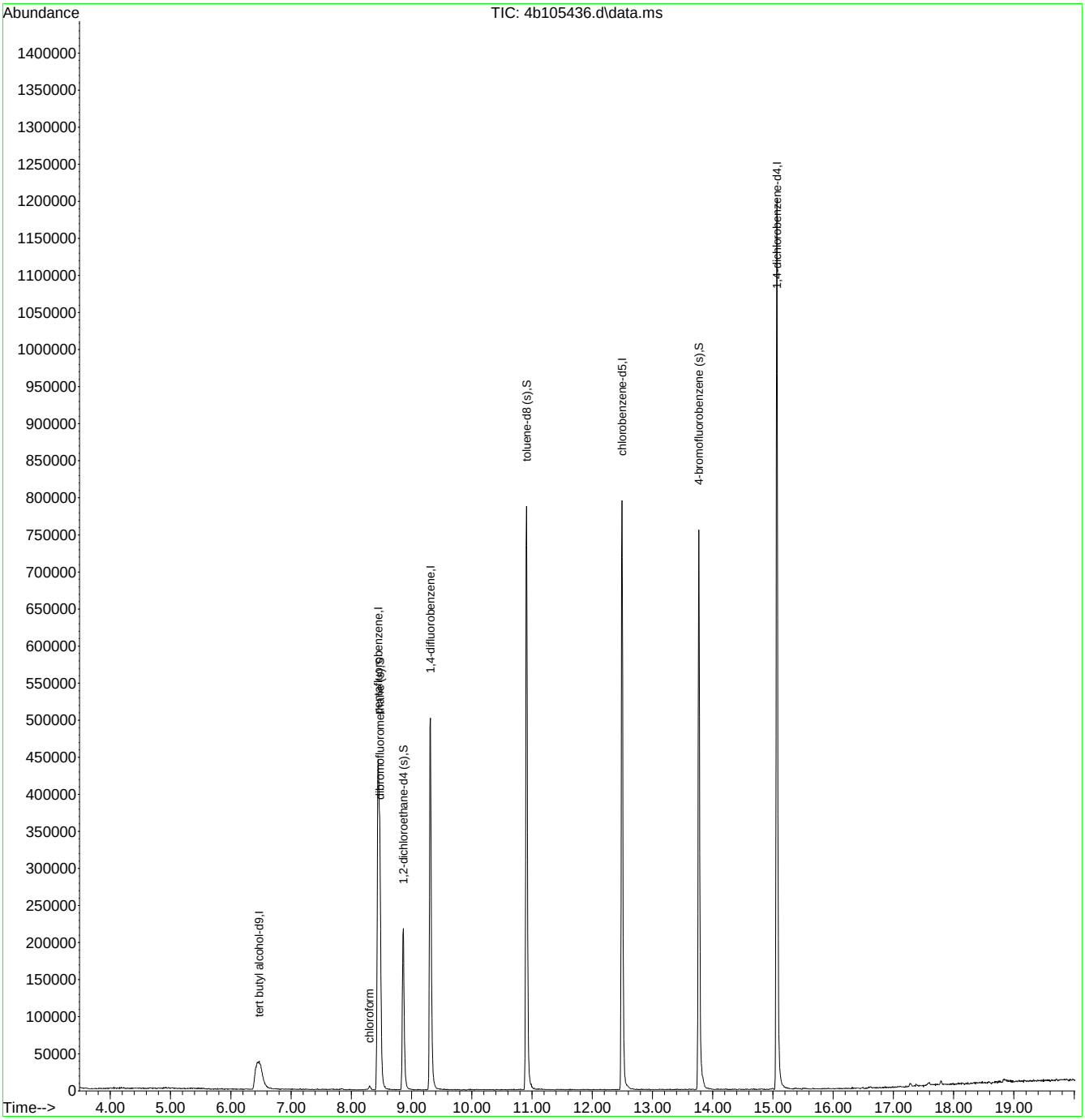
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.468	65	173952	500.00	ug/L	0.03
5) pentafluorobenzene	8.445	168	379061	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	469689	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	486942	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	360276	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	178713	53.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.30%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	181643	54.18	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.36%			
74) toluene-d8 (s)	10.909	98	577928	48.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.44%			
97) 4-bromofluorobenzene (s)	13.770	95	256746	48.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.04%			
Target Compounds						Qvalue
42) chloroform	8.299	83	3611	0.66	ug/L	# 66

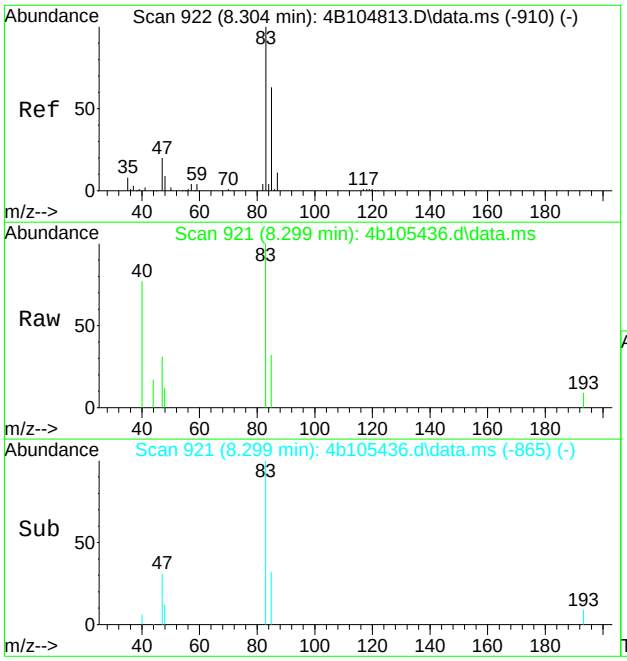
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105436.d
Acq On : 10 Jul 2021 1:09 am
Operator : EddieH
Sample : JD27695-9 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:45:05 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

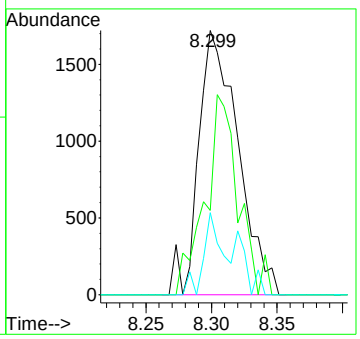




#42
chloroform
Concen: 0.66 ug/L
RT: 8.299 min Scan# 921
Delta R.T. -0.005 min
Lab File: 4b105436.d
Acq: 10 Jul 2021 1:09 am

Tgt Ion: 83 Resp: 3611

Ion	Ratio	Lower	Upper
83	100		
85	31.9	33.2	93.2#
47	31.0	0.0	52.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105437.d
Acq On : 10 Jul 2021 1:37 am
Operator : EddieH
Sample : JD27695-10 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:46:32 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

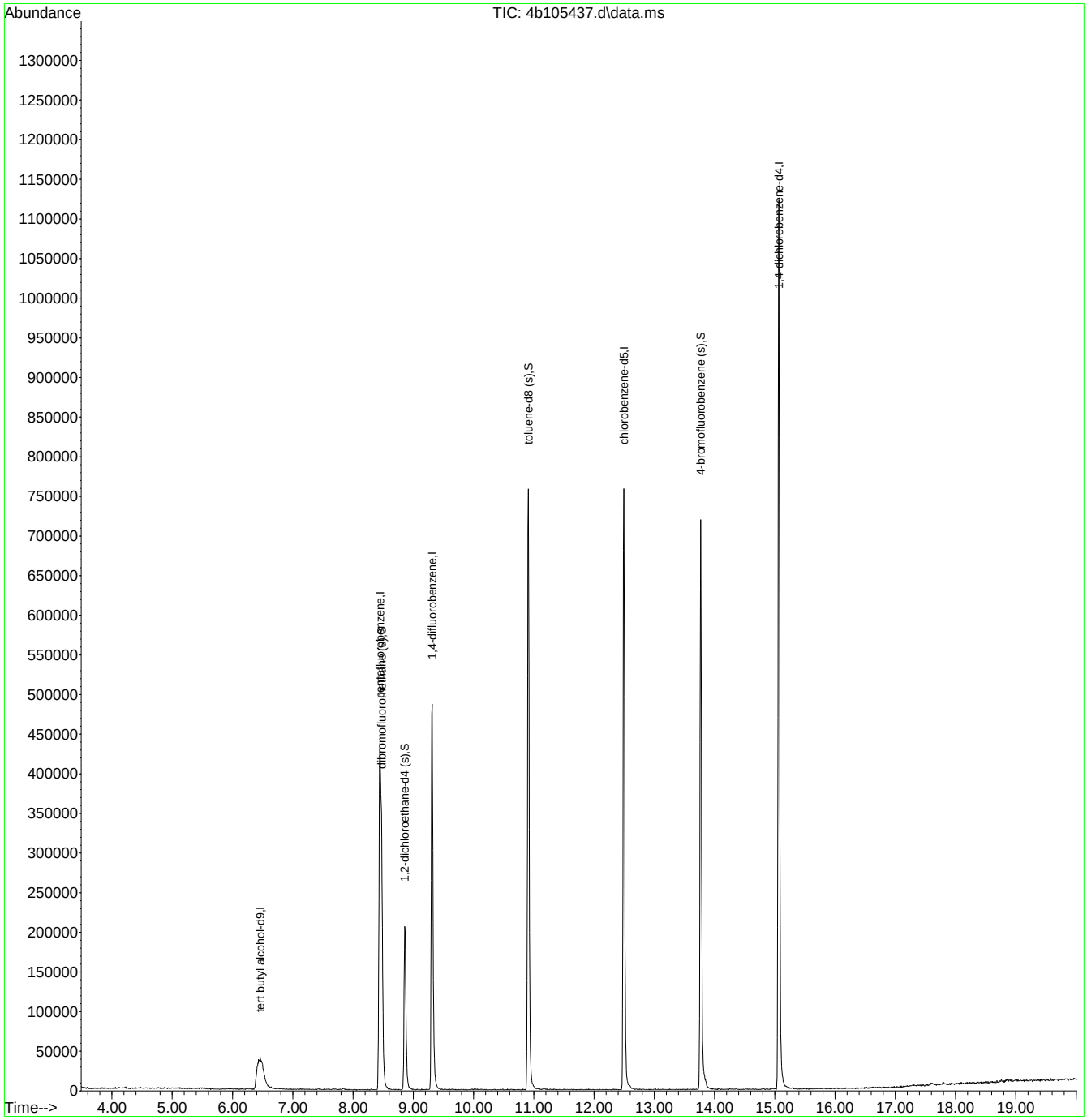
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.458	65	171854	500.00	ug/L	0.02
5) pentafluorobenzene	8.446	168	362572	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	452273	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	463624	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	347788	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.472	113	172256	53.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.12%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	176548	54.69	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.38%			
74) toluene-d8 (s)	10.909	98	557154	49.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.66%			
97) 4-bromofluorobenzene (s)	13.770	95	241679	47.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.64%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105437.d
Acq On : 10 Jul 2021 1:37 am
Operator : EddieH
Sample : JD27695-10 Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:46:32 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105431.d
Acq On : 9 Jul 2021 10:47 pm
Operator : EddieH
Sample : mb Inst : MS4B
Misc : MS37677,V4B4567,W,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:41:38 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

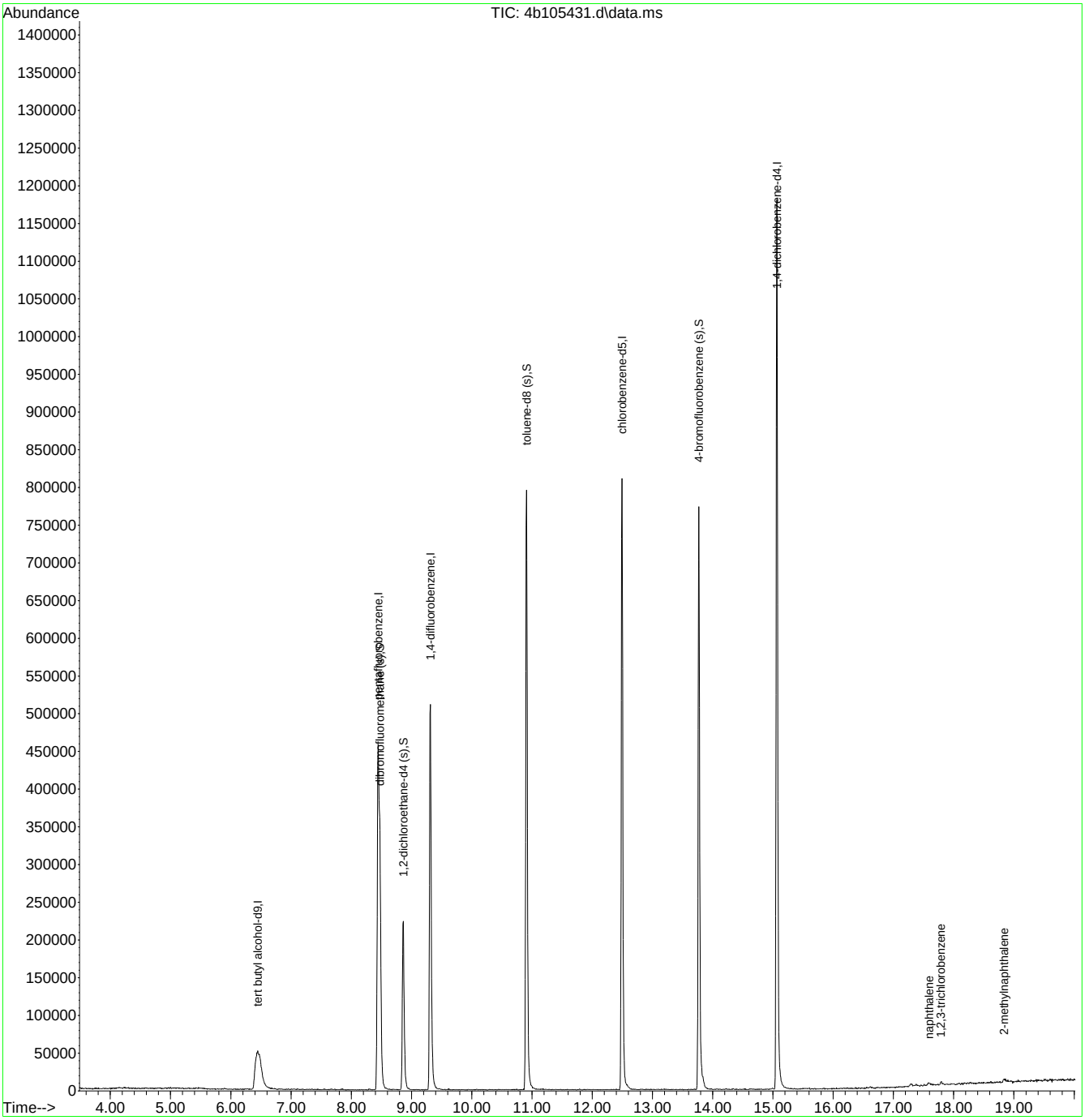
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.448	65	203839	500.00	ug/L	0.01
5) pentafluorobenzene	8.446	168	373260	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	473793	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	498602	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	370427	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	180288	54.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.90%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	185255	54.78	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.56%			
74) toluene-d8 (s)	10.909	98	585131	48.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.36%			
97) 4-bromofluorobenzene (s)	13.770	95	263802	48.49	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.98%			
Target Compounds						Qvalue
121) naphthalene	17.593	128	5756	0.31	ug/L	82
122) 1,2,3-trichlorobenzene	17.787	180	2369	0.28	ug/L #	57
123) 2-methylnaphthalene	18.838	142	5565	0.50	ug/L	77

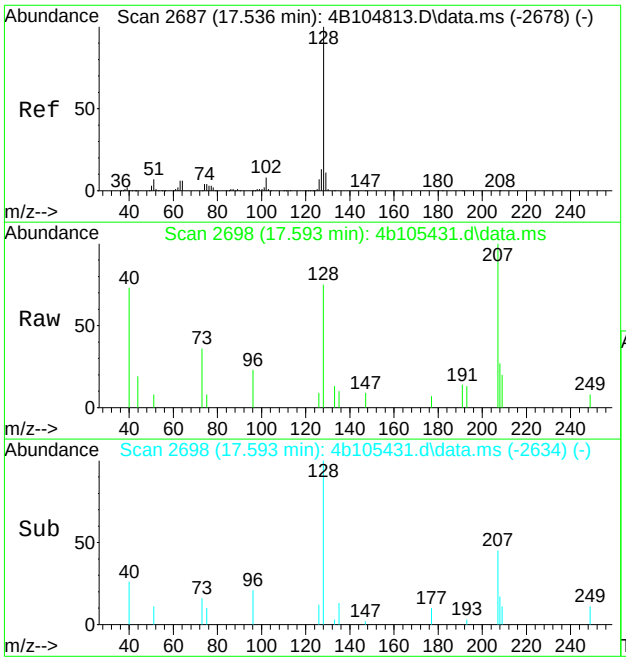
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105431.d
Acq On : 9 Jul 2021 10:47 pm
Operator : EddieH
Sample : mb Inst : MS4B
Misc : MS37677,V4B4567,W,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:41:38 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

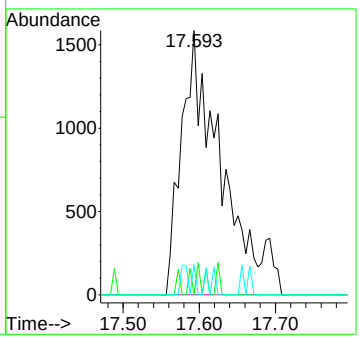


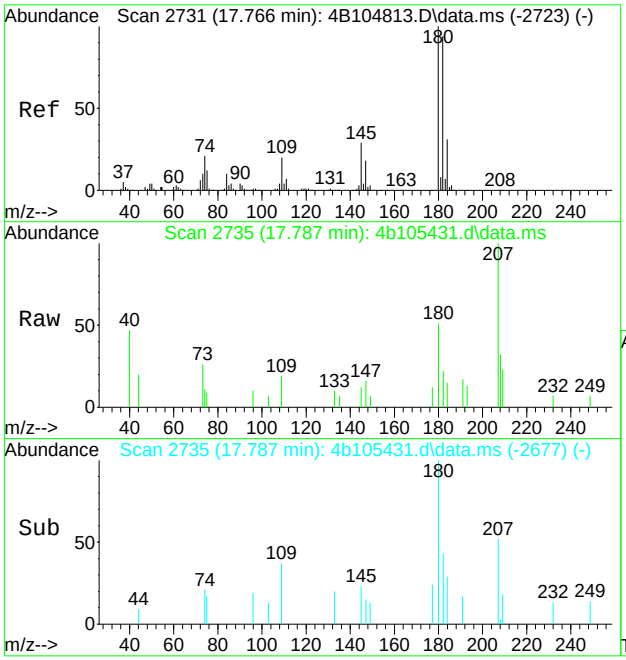


#121
naphthalene
Concen: 0.31 ug/L
RT: 17.593 min Scan# 2698
Delta R.T. 0.037 min
Lab File: 4b105431.d
Acq: 9 Jul 2021 10:47 pm

Tgt Ion:128 Resp: 5756

Ion	Ratio	Lower	Upper
128	100		
102	0.0	0.0	38.0
51	11.3	0.0	36.8

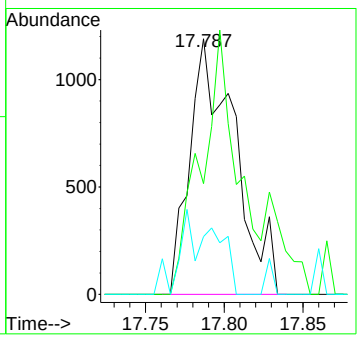


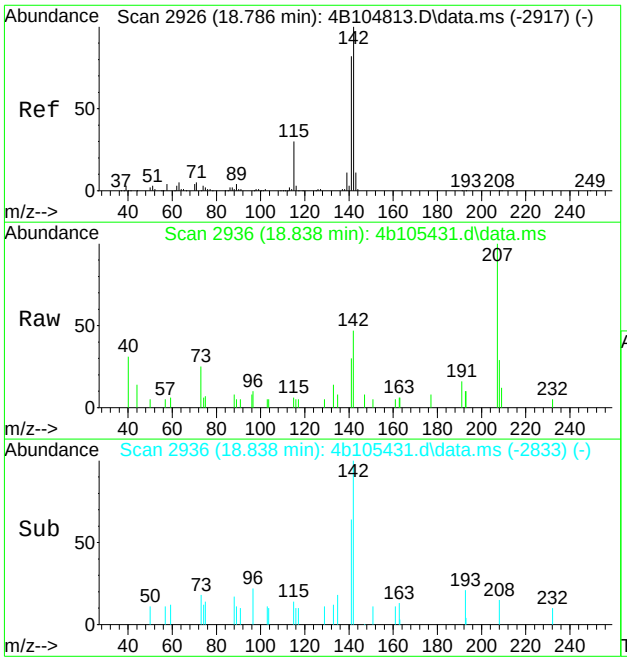


#122
1,2,3-trichlorobenzene
Concen: 0.28 ug/L
RT: 17.787 min Scan# 2735
Delta R.T. 0.005 min
Lab File: 4b105431.d
Acq: 9 Jul 2021 10:47 pm

Tgt Ion:180 Resp: 2369

Ion	Ratio	Lower	Upper
180	100		
182	43.3	64.5	124.5#
145	22.6	0.0	59.5

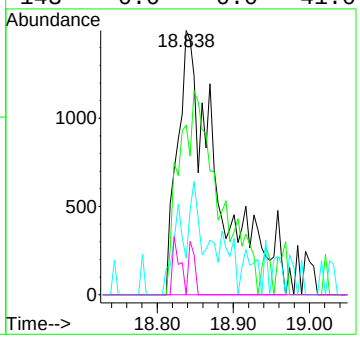




#123
2-methylnaphthalene
Concen: 0.50 ug/L
RT: 18.838 min Scan# 2936
Delta R.T. 0.037 min
Lab File: 4b105431.d
Acq: 9 Jul 2021 10:47 pm

Tgt Ion:142 Resp: 5565

Ion	Ratio	Lower	Upper
142	100		
141	64.2	62.3	102.3
115	13.8	0.0	60.0
143	0.0	0.0	41.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105457.d
Acq On : 12 Jul 2021 10:37 am
Operator : EddieH
Sample : mb Inst : MS4B
Misc : MS46075,V4B4568,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:17:35 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

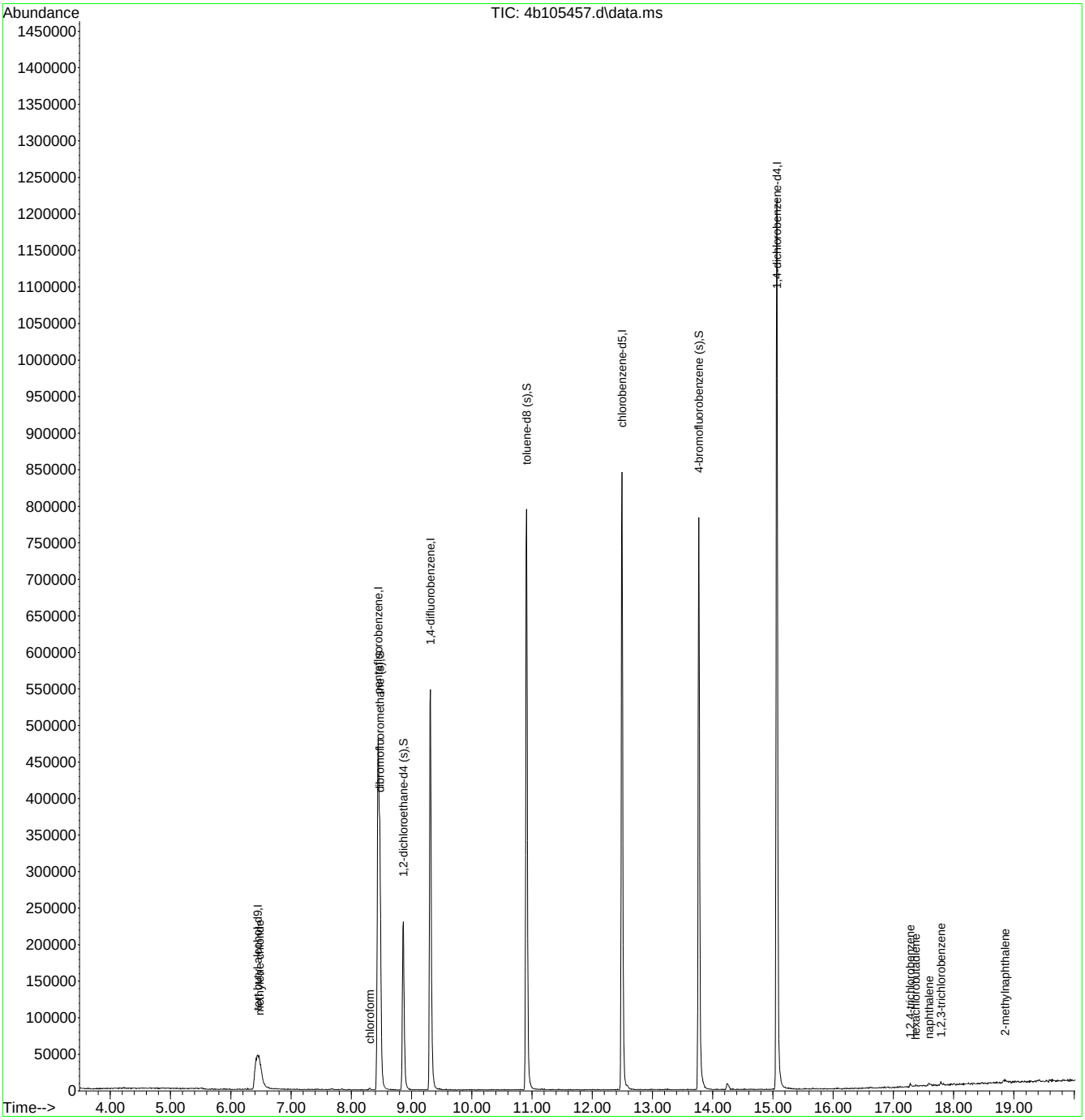
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.448	65	191844	500.00	ug/L	0.01
5) pentafluorobenzene	8.445	168	390371	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	489610	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	502132	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	373234	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	178720	51.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.22%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	189728	54.29	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.58%			
74) toluene-d8 (s)	10.909	98	578213	47.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.54%			
97) 4-bromofluorobenzene (s)	13.770	95	257477	46.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.94%			
Target Compounds						Qvalue
22) methylene chloride	6.479	84	555	0.16	ug/L	95
42) chloroform	8.309	83	862	0.15	ug/L	84
119) 1,2,4-trichlorobenzene	17.279	180	1667	0.17	ug/L #	69
120) hexachlorobutadiene	17.368	225	561	0.12	ug/L	61
121) naphthalene	17.593	128	5029	0.27	ug/L	87
122) 1,2,3-trichlorobenzene	17.792	180	1979	0.23	ug/L	93
123) 2-methylnaphthalene	18.854	142	4766	0.43	ug/L	87

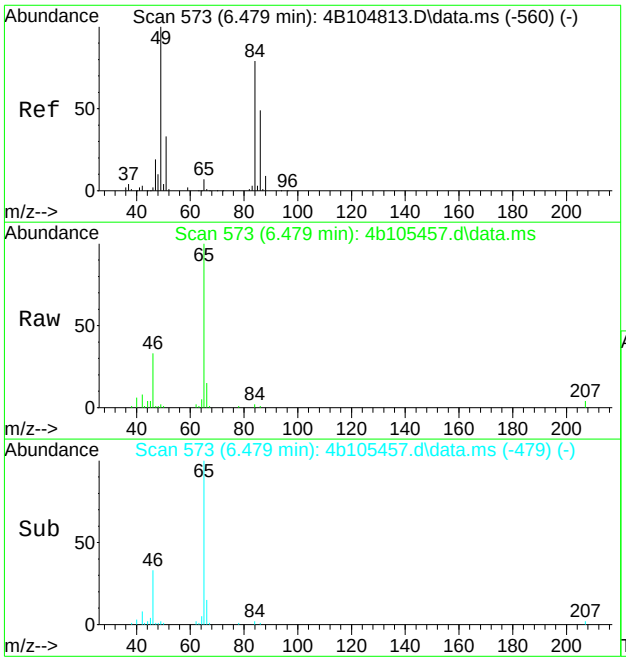
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105457.d
Acq On : 12 Jul 2021 10:37 am
Operator : EddieH
Sample : mb Inst : MS4B
Misc : MS46075,V4B4568,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:17:35 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

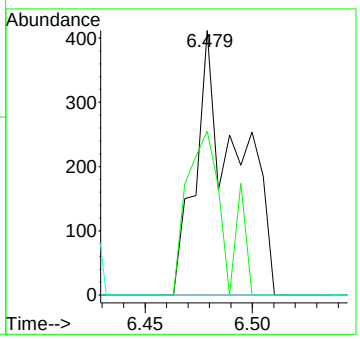


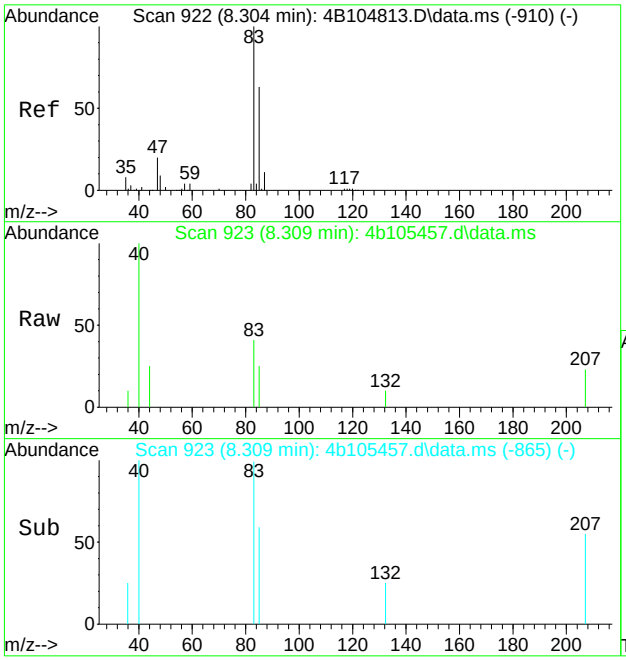


#22
methylene chloride
Concen: 0.16 ug/L
RT: 6.479 min Scan# 573
Delta R.T. -0.011 min
Lab File: 4b105457.d
Acq: 12 Jul 2021 10:37 am

Tgt Ion: 84 Resp: 555

Ion	Ratio	Lower	Upper
84	100		
86	61.9	31.3	91.3
88	0.0	0.0	40.9

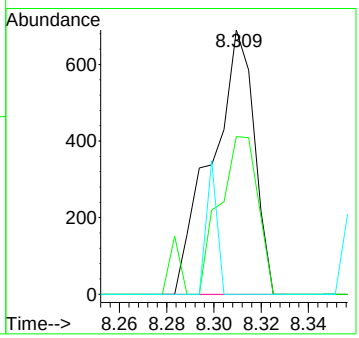


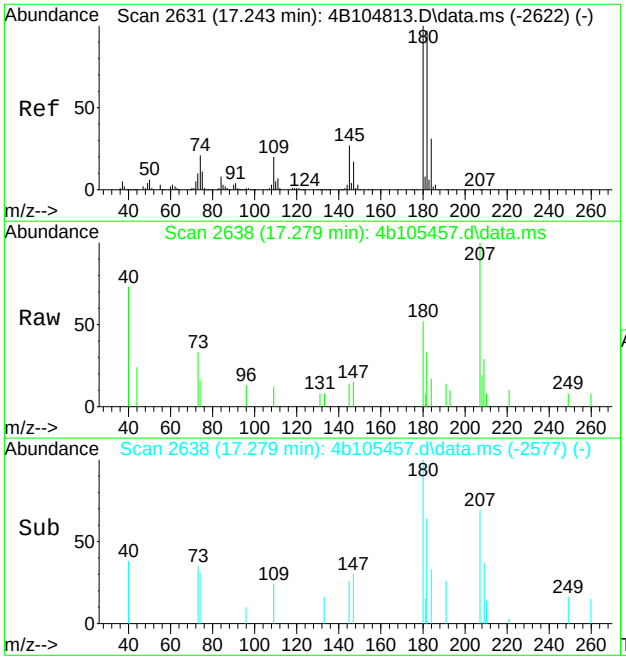


#42
chloroform
Concen: 0.15 ug/L
RT: 8.309 min Scan# 923
Delta R.T. 0.005 min
Lab File: 4b105457.d
Acq: 12 Jul 2021 10:37 am

Tgt Ion: 83 Resp: 862

Ion	Ratio	Lower	Upper
83	100		
85	59.7	33.2	93.2
47	0.0	0.0	52.9

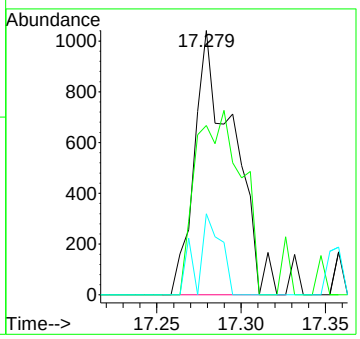


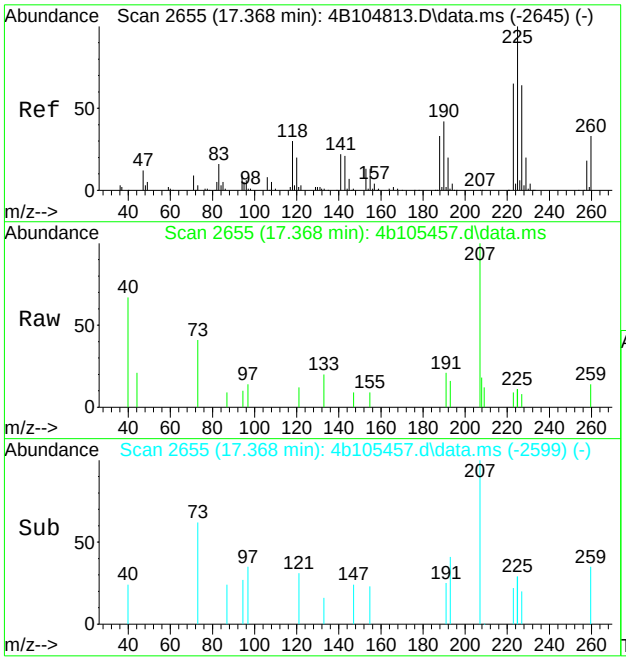


#119
1,2,4-trichlorobenzene
Concen: 0.17 ug/L
RT: 17.279 min Scan# 2638
Delta R.T. 0.021 min
Lab File: 4b105457.d
Acq: 12 Jul 2021 10:37 am

Tgt Ion:180 Resp: 1667

Ion	Ratio	Lower	Upper
180	100		
182	64.0	67.4	127.4#
74	30.6	0.0	51.1

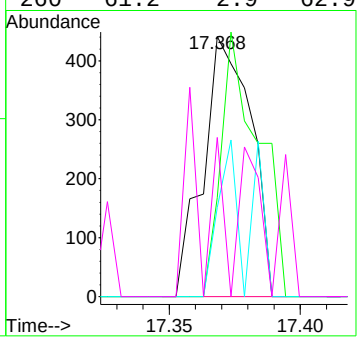


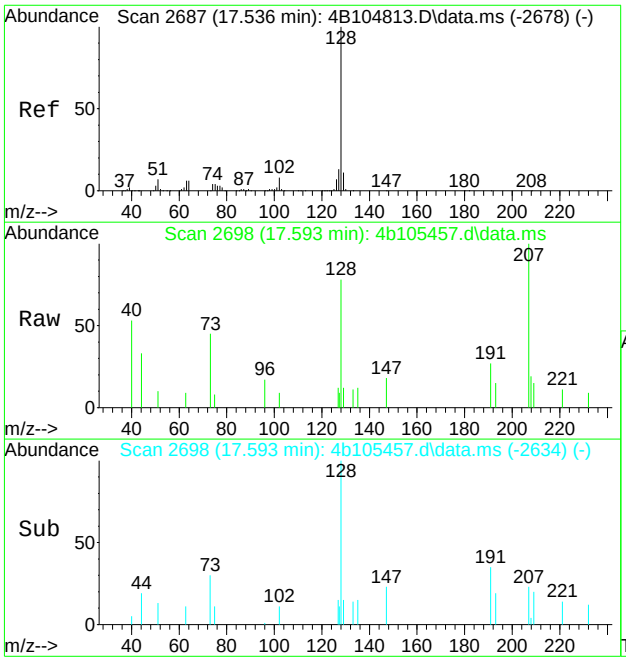


#120
hexachlorobutadiene
Concen: 0.12 ug/L
RT: 17.368 min Scan# 2655
Delta R.T. -0.005 min
Lab File: 4b105457.d
Acq: 12 Jul 2021 10:37 am

Tgt Ion:225 Resp: 561

Ion	Ratio	Lower	Upper
225	100		
223	38.1	34.5	94.5
227	34.2	34.1	94.1
260	61.2	2.9	62.9

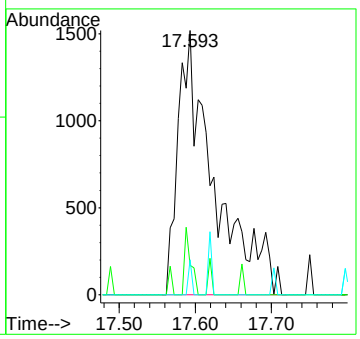


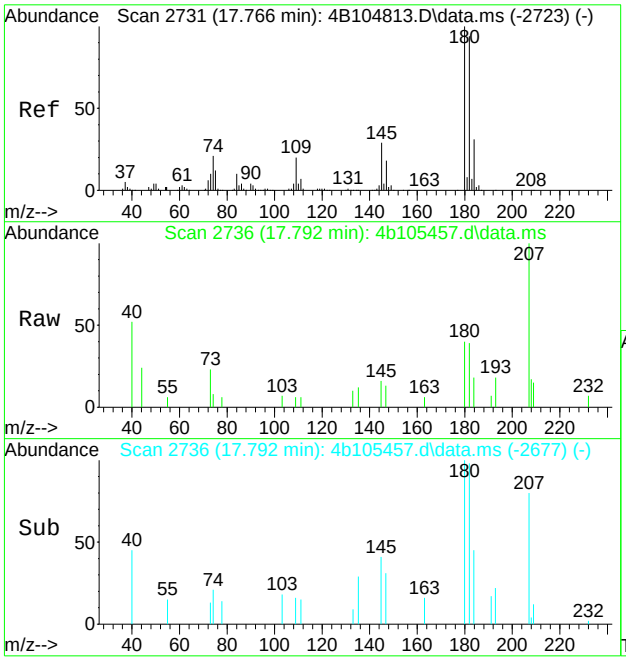


#121
naphthalene
Concen: 0.27 ug/L
RT: 17.593 min Scan# 2698
Delta R.T. 0.036 min
Lab File: 4b105457.d
Acq: 12 Jul 2021 10:37 am

Tgt Ion:128 Resp: 5029

Ion	Ratio	Lower	Upper
128	100		
102	11.1	0.0	38.0
51	13.2	0.0	36.8

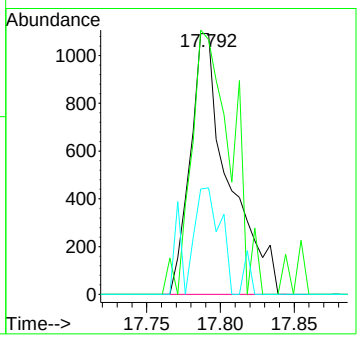


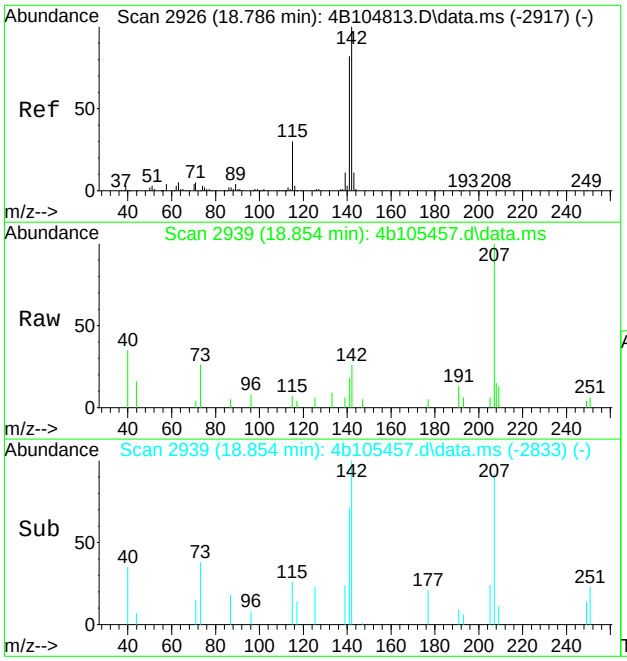


#122
1,2,3-trichlorobenzene
Concen: 0.23 ug/L
RT: 17.792 min Scan# 2736
Delta R.T. 0.010 min
Lab File: 4b105457.d
Acq: 12 Jul 2021 10:37 am

Tgt Ion:180 Resp: 1979

Ion	Ratio	Lower	Upper
180	100		
182	97.6	64.5	124.5
145	40.8	0.0	59.5

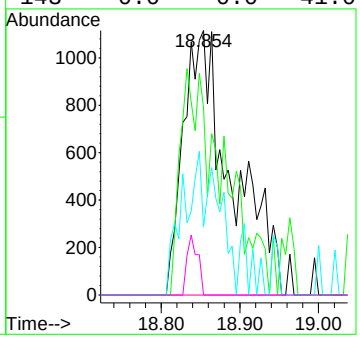




#123
2-methylnaphthalene
Concen: 0.43 ug/L
RT: 18.854 min Scan# 2939
Delta R.T. 0.052 min
Lab File: 4b105457.d
Acq: 12 Jul 2021 10:37 am

Tgt Ion:142 Resp: 4766

Ion	Ratio	Lower	Upper
142	100		
141	70.7	62.3	102.3
115	25.7	0.0	60.0
143	0.0	0.0	41.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105429.d
Acq On : 9 Jul 2021 9:49 pm
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:08:13 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.437	65	175808	500.00	ug/L		0.00
5) pentafluorobenzene	8.446	168	363183	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	460404	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	469417	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.062	152	342735	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	178105	55.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.56%				
53) 1,2-dichloroethane-d4 (s)	8.864	65	177452	54.00	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.00%				
74) toluene-d8 (s)	10.904	98	560506	49.02	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.04%				
97) 4-bromofluorobenzene (s)	13.765	95	244830	48.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.28%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.552	59	99923	278.17	ug/L		92
4) 1,4-dioxane	9.931	88	41948	1294.60	ug/L		83
6) chlorodifluoromethane	3.712	51	240649	42.50	ug/L		94
7) dichlorodifluoromethane	3.697	85	396952	54.50	ug/L		99
8) chloromethane	3.995	50	303591	44.62	ug/L		98
9) vinyl chloride	4.193	62	301181	47.84	ug/L		99
10) 1,3-butadiene	4.204	54	218364	48.93	ug/L	#	83
11) bromomethane	4.711	94	229236	50.66	ug/L		98
12) chloroethane	4.842	64	135011	48.48	ug/L		98
13) trichlorofluoromethane	5.239	101	413055	60.42	ug/L		97
14) ethyl ether	5.522	74	56248	48.19	ug/L		96
15) acrolein	5.715	56	23877	53.04	ug/L		90
16) freon 113	5.925	151	186575	50.29	ug/L		95
17) 1,1-dichloroethene	5.893	61	235376	51.31	ug/L		97
18) acetone	5.872	58	43563	210.37	ug/L		88
19) acetonitrile	6.218	41	181016	500.30	ug/L		95
20) iodomethane	6.113	142	340700	49.88	ug/L		95
21) carbon disulfide	6.254	76	524013	44.68	ug/L		98
22) methylene chloride	6.484	84	164538	51.49	ug/L		98
23) methyl acetate	6.270	43	89242	48.51	ug/L		97
24) methyl tert butyl ether	6.814	73	441918	52.64	ug/L		97
25) trans-1,2-dichloroethene	6.835	61	215420	50.85	ug/L		98
26) hexane	7.154	56	100140	44.76	ug/L		96
27) di-isopropyl ether	7.332	45	531071	47.31	ug/L		98
28) 2-butanone	7.886	72	49454	251.34	ug/L	#	75
29) 1,1-dichloroethane	7.326	63	266806	52.71	ug/L		100
30) chloroprene	7.426	53	206783	53.55	ug/L		98
31) acrylonitrile	6.714	53	46497	57.62	ug/L		95
32) vinyl acetate	7.264	86	21479	56.63	ug/L	#	87
33) ethyl tert-butyl ether	7.740	59	535526	53.22	ug/L		98
34) ethyl acetate	7.912	45	17821	50.31	ug/L	#	86
35) 2,2-dichloropropane	8.006	77	307907	52.85	ug/L		96
36) cis-1,2-dichloroethene	7.959	96	158940	52.49	ug/L		95
37) propionitrile	7.933	54	166355	525.31	ug/L		96
38) methyl acrylate	7.996	85	18301	57.48	ug/L	#	62
39) methacrylonitrile	8.127	67	43582	53.10	ug/L		96
40) bromochloromethane	8.231	128	93221	58.78	ug/L		89
41) tetrahydrofuran	8.263	72	15873	56.05	ug/L	#	80
42) chloroform	8.304	83	292742	55.65	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105429.d
Acq On : 9 Jul 2021 9:49 pm
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:08:13 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.346	59	171420	60.66	ug/L		96
45) 1,1,1-trichloroethane	8.561	97	359062	57.26	ug/L		98
46) cyclohexane	8.686	84	274710	50.29	ug/L		93
48) 1,1-dichloropropene	8.712	75	188163	53.19	ug/L		100
49) carbon tetrachloride	8.754	117	331011	58.78	ug/L		100
50) tert-amyl alcohol	8.817	73	39404	275.64	ug/L		93
51) isopropyl acetate	8.843	87	27823	58.30	ug/L	#	60
54) n-butyl alcohol	9.345	41	140351	2286.76	ug/L		99
55) 2,2,4-trimethylpentane	9.037	57	604554	57.11	ug/L		99
56) benzene	8.937	78	529459	50.98	ug/L		100
57) tert-amyl methyl ether	9.016	73	531744	54.20	ug/L		97
58) heptane	9.183	57	97372	48.86	ug/L		88
59) 1,2-dichloroethane	8.943	62	210111	55.97	ug/L		94
60) ethyl acrylate	9.586	55	140977	53.67	ug/L		99
61) trichloroethene	9.617	95	147352	53.82	ug/L		96
62) 2-chloroethyl vinyl ether	10.360	63	405577	277.50	ug/L		98
63) methyl methacrylate	9.842	100	29814	56.14	ug/L		87
64) methylcyclohexane	9.921	83	308437	49.03	ug/L		97
65) 1,2-dichloropropane	9.879	63	142495	49.21	ug/L		94
66) dibromomethane	9.983	93	94375	56.32	ug/L		97
67) bromodichloromethane	10.130	83	220315	58.50	ug/L		97
68) 2-nitropropane	10.302	41	35301	67.39	ug/L		94
69) epichlorohydrin	10.438	57	62281	268.21	ug/L		97
70) cis-1,3-dichloropropene	10.585	75	232947	55.81	ug/L		99
71) 4-methyl-2-pentanone	10.679	58	211168	213.25	ug/L		91
72) isoamyl alcohol	10.679	70	84987	1142.99	ug/L		94
75) toluene	10.982	92	348646	51.50	ug/L		99
76) ethyl methacrylate	11.160	69	150372	52.27	ug/L		95
77) trans-1,3-dichloropropene	11.155	75	215918	58.26	ug/L		98
78) 1,1,2-trichloroethane	11.385	83	107859	55.08	ug/L		97
79) tetrachloroethene	11.568	164	157901	55.53	ug/L		97
80) 2-hexanone	11.552	58	182500	221.46	ug/L		97
81) 1,3-dichloropropane	11.573	76	199221	53.88	ug/L		97
82) butyl acetate	11.652	56	83868	52.96	ug/L		95
83) dibromochloromethane	11.840	129	195021	61.32	ug/L		98
84) 1,2-dibromoethane	12.002	107	143695	55.35	ug/L		97
85) n-butyl ether	12.499	57	672523	50.41	ug/L		99
86) chlorobenzene	12.525	112	436909	54.72	ug/L		98
87) 1,1,1,2-tetrachloroethane	12.593	131	227030	57.29	ug/L		96
88) ethylbenzene	12.598	91	754824	53.00	ug/L		99
89) m,p-xylene	12.729	106	592903	107.96	ug/L		99
90) o-xylene	13.163	91	687958	53.91	ug/L		99
91) styrene	13.179	104	459406	56.84	ug/L		98
92) butyl acrylate	12.980	55	285194	52.56	ug/L		97
93) isopropylbenzene	13.550	105	932579	54.05	ug/L		99
94) bromoform	13.420	173	163998	65.67	ug/L		97
95) cis-1,4-dichloro-2-butene	13.576	88	25722	34.09	ug/L		84
98) 1,1,2,2-tetrachloroethane	13.838	83	209545	51.81	ug/L		99
99) trans-1,4-dichloro-2-b...	13.875	53	22125	31.90	ug/L		96
100) 1,2,3-trichloropropane	13.932	110	60929	56.33	ug/L		90
101) bromobenzene	13.964	156	256554	54.21	ug/L		99
102) n-propylbenzene	14.011	91	1045598	51.29	ug/L		100
103) 2-chlorotoluene	14.152	126	230438	52.77	ug/L		95
104) 4-chlorotoluene	14.272	91	621675	53.92	ug/L		97
105) 1,3,5-trimethylbenzene	14.188	105	810702	51.90	ug/L		98
106) tert-butylbenzene	14.560	119	685088	54.49	ug/L		100
107) 1,2,4-trimethylbenzene	14.617	105	850278	52.53	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105429.d
Acq On : 9 Jul 2021 9:49 pm
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:08:13 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

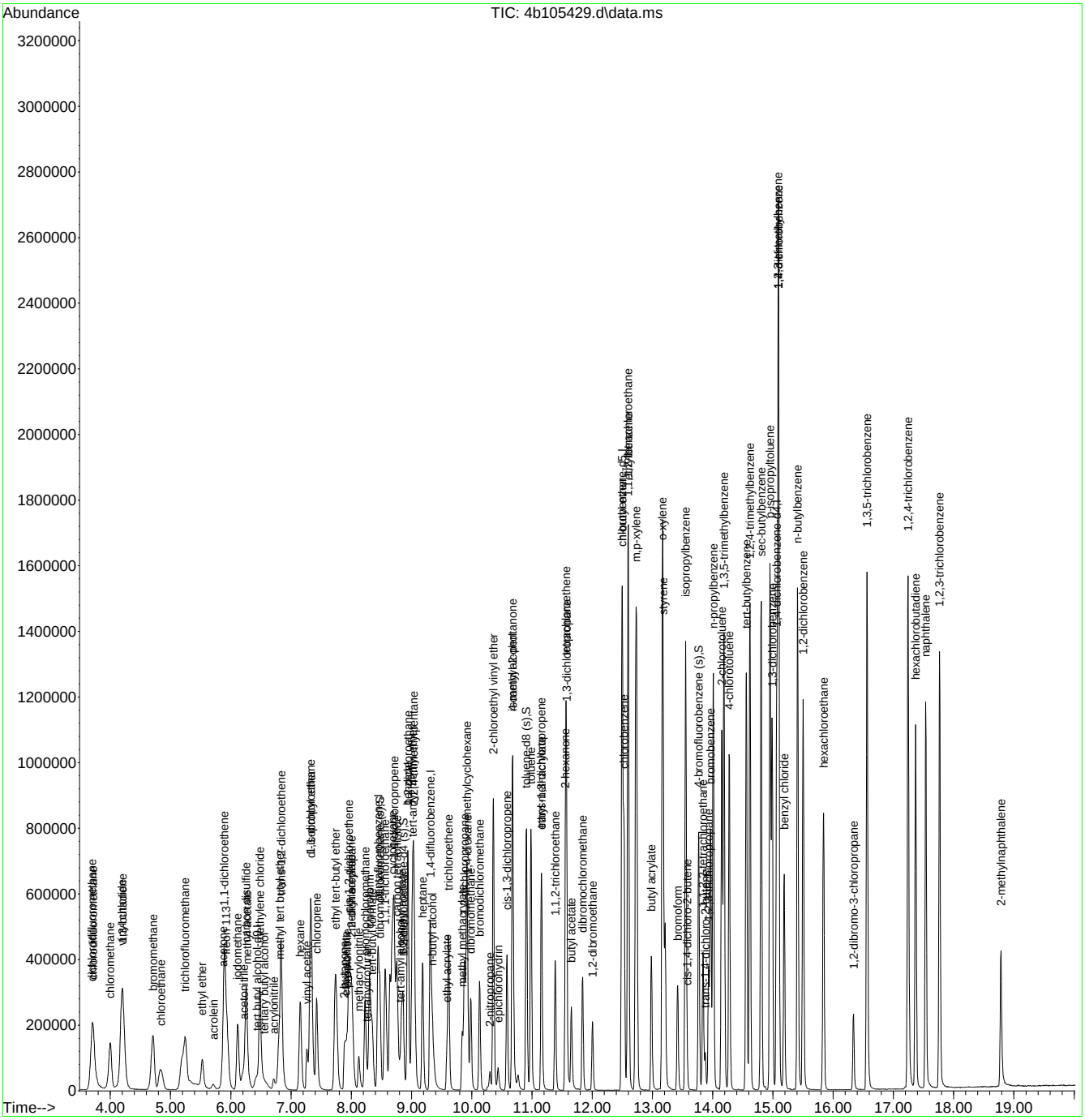
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	14.806	105	1091132	53.46	ug/L	99
109) p-isopropyltoluene	14.952	119	988658	53.82	ug/L	100
110) 1,3-dichlorobenzene	14.989	146	506741	55.19	ug/L	98
111) 1,2,3-trimethylbenzene	15.088	105	936397	54.95	ug/L	99
112) 1,4-dichlorobenzene	15.093	146	515174	54.13	ug/L	99
113) 1,2-dichlorobenzene	15.501	146	545010	55.62	ug/L	98
114) benzyl chloride	15.187	91	495623	57.36	ug/L	97
115) n-butylbenzene	15.407	92	494060	55.31	ug/L	97
116) hexachloroethane	15.841	201	181121	52.27	ug/L	97
117) 1,2-dibromo-3-chloropr...	16.338	157	77182	62.34	ug/L	98
118) 1,3,5-trichlorobenzene	16.563	180	578196	62.18	ug/L	97
119) 1,2,4-trichlorobenzene	17.243	180	541786	60.74	ug/L	97
120) hexachlorobutadiene	17.368	225	254612	59.77	ug/L	97
121) naphthalene	17.536	128	983718	57.09	ug/L	99
122) 1,2,3-trichlorobenzene	17.766	180	486386	61.45	ug/L	99
123) 2-methylnaphthalene	18.786	142	263316	25.69	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105429.d
Acq On : 9 Jul 2021 9:49 pm
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:08:13 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105455.d
Acq On : 12 Jul 2021 9:41 am
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:15:50 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.458	65	165053	500.00	ug/L	0.02
5) pentafluorobenzene	8.445	168	363963	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	456139	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	467937	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	351340	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	167392	51.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.70%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	177807	54.61	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.22%			
74) toluene-d8 (s)	10.904	98	544554	47.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.54%			
97) 4-bromofluorobenzene (s)	13.765	95	241546	46.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.62%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.563	59	97775	289.92	ug/L	95
4) 1,4-dioxane	9.936	88	38534	1266.73	ug/L	91
6) chlorodifluoromethane	3.712	51	245496	43.26	ug/L	95
7) dichlorodifluoromethane	3.696	85	386147	52.91	ug/L	96
8) chloromethane	4.000	50	290061	42.54	ug/L	98
9) vinyl chloride	4.188	62	292894	46.42	ug/L	97
10) 1,3-butadiene	4.219	54	206505	46.17	ug/L	98
11) bromomethane	4.711	94	224946	49.60	ug/L	98
12) chloroethane	4.826	64	131254	47.03	ug/L	95
13) trichlorofluoromethane	5.245	101	410712	59.95	ug/L	97
14) ethyl ether	5.527	74	56319	48.14	ug/L	90
15) acrolein	5.705	56	22280	49.39	ug/L	85
16) freon 113	5.930	151	183109	49.25	ug/L	95
17) 1,1-dichloroethene	5.893	61	235876	51.31	ug/L	96
18) acetone	5.872	58	48513	233.77	ug/L #	77
19) acetonitrile	6.212	41	179380	494.72	ug/L	93
20) iodomethane	6.118	142	331440	48.42	ug/L	95
21) carbon disulfide	6.254	76	523657	44.55	ug/L	99
22) methylene chloride	6.484	84	159617	49.84	ug/L	97
23) methyl acetate	6.275	43	85938	46.61	ug/L	98
24) methyl tert butyl ether	6.814	73	437271	51.98	ug/L	96
25) trans-1,2-dichloroethene	6.834	61	214751	50.58	ug/L	96
26) hexane	7.159	56	100339	44.75	ug/L	91
27) di-isopropyl ether	7.331	45	525075	46.67	ug/L	98
28) 2-butanone	7.886	72	50438	255.79	ug/L #	63
29) 1,1-dichloroethane	7.326	63	265440	52.33	ug/L	99
30) chloroprene	7.426	53	206651	53.40	ug/L	97
31) acrylonitrile	6.714	53	45236	55.94	ug/L	88
32) vinyl acetate	7.269	86	19847	52.21	ug/L #	65
33) ethyl tert-butyl ether	7.739	59	530572	52.61	ug/L	97
34) ethyl acetate	7.907	45	17870	50.34	ug/L #	47
35) 2,2-dichloropropane	8.006	77	328166	56.20	ug/L	96
36) cis-1,2-dichloroethene	7.959	96	161767	53.31	ug/L	94
37) propionitrile	7.933	54	164244	517.54	ug/L	95
38) methyl acrylate	7.990	85	17994	56.43	ug/L #	74
39) methacrylonitrile	8.126	67	42817	52.06	ug/L	98
40) bromochloromethane	8.226	128	89836	56.52	ug/L	92
41) tetrahydrofuran	8.257	72	15003	52.86	ug/L	93
42) chloroform	8.304	83	289008	54.82	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105455.d
Acq On : 12 Jul 2021 9:41 am
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:15:50 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.346	59	171774	60.66	ug/L		98
45) 1,1,1-trichloroethane	8.566	97	361341	57.50	ug/L		97
46) cyclohexane	8.686	84	264855	48.38	ug/L		95
48) 1,1-dichloropropene	8.712	75	187894	53.00	ug/L		95
49) carbon tetrachloride	8.754	117	332144	58.86	ug/L		99
50) tert-amyl alcohol	8.812	73	37701	263.17	ug/L	#	80
51) isopropyl acetate	8.838	87	26617	55.65	ug/L	#	68
54) n-butyl alcohol	9.345	41	139974	2301.94	ug/L		97
55) 2,2,4-trimethylpentane	9.036	57	599840	57.20	ug/L		97
56) benzene	8.937	78	524591	50.98	ug/L		98
57) tert-amyl methyl ether	9.015	73	526022	54.12	ug/L		97
58) heptane	9.188	57	97064	49.16	ug/L		96
59) 1,2-dichloroethane	8.942	62	211419	56.85	ug/L		95
60) ethyl acrylate	9.586	55	138707	53.30	ug/L		98
61) trichloroethene	9.617	95	146472	54.00	ug/L		98
62) 2-chloroethyl vinyl ether	10.360	63	398080	274.92	ug/L		98
63) methyl methacrylate	9.842	100	28372	53.92	ug/L	#	86
64) methylcyclohexane	9.920	83	306177	49.13	ug/L		97
65) 1,2-dichloropropane	9.878	63	140797	49.08	ug/L		96
66) dibromomethane	9.983	93	94105	56.68	ug/L		96
67) bromodichloromethane	10.130	83	217355	58.25	ug/L		97
68) 2-nitropropane	10.297	41	37130	71.54	ug/L		91
69) epichlorohydrin	10.438	57	63144	274.47	ug/L		98
70) cis-1,3-dichloropropene	10.585	75	237563	57.45	ug/L		96
71) 4-methyl-2-pentanone	10.673	58	208137	212.16	ug/L		89
72) isoamyl alcohol	10.679	70	83192	1129.31	ug/L		96
75) toluene	10.982	92	344435	51.04	ug/L		97
76) ethyl methacrylate	11.160	69	144155	50.27	ug/L		96
77) trans-1,3-dichloropropene	11.155	75	218349	59.10	ug/L		97
78) 1,1,2-trichloroethane	11.385	83	104757	53.67	ug/L		94
79) tetrachloroethene	11.568	164	150677	53.16	ug/L		95
80) 2-hexanone	11.552	58	182684	222.39	ug/L		95
81) 1,3-dichloropropane	11.573	76	198972	53.99	ug/L		99
82) butyl acetate	11.652	56	81850	51.85	ug/L		99
83) dibromochloromethane	11.840	129	194760	61.43	ug/L		99
84) 1,2-dibromoethane	12.002	107	144070	55.67	ug/L		97
85) n-butyl ether	12.499	57	673045	50.61	ug/L		98
86) chlorobenzene	12.525	112	435270	54.69	ug/L		99
87) 1,1,1,2-tetrachloroethane	12.593	131	228277	57.78	ug/L		98
88) ethylbenzene	12.598	91	752799	53.02	ug/L		99
89) m,p-xylene	12.729	106	587727	107.35	ug/L		97
90) o-xylene	13.163	91	699050	54.95	ug/L		98
91) styrene	13.174	104	454432	56.40	ug/L		92
92) butyl acrylate	12.980	55	284815	52.66	ug/L		98
93) isopropylbenzene	13.550	105	939018	54.59	ug/L		99
94) bromoform	13.419	173	164625	66.13	ug/L		99
95) cis-1,4-dichloro-2-butene	13.571	88	36156	47.36	ug/L		93
98) 1,1,2,2-tetrachloroethane	13.838	83	210047	50.66	ug/L		95
99) trans-1,4-dichloro-2-b...	13.874	53	29682	41.16	ug/L		90
100) 1,2,3-trichloropropane	13.932	110	59973	54.09	ug/L		95
101) bromobenzene	13.963	156	256908	52.95	ug/L		97
102) n-propylbenzene	14.010	91	1049902	50.24	ug/L		100
103) 2-chlorotoluene	14.152	126	234736	52.44	ug/L		98
104) 4-chlorotoluene	14.272	91	630277	53.32	ug/L		98
105) 1,3,5-trimethylbenzene	14.188	105	811565	50.69	ug/L		98
106) tert-butylbenzene	14.560	119	684313	53.10	ug/L		98
107) 1,2,4-trimethylbenzene	14.617	105	848705	51.15	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105455.d
Acq On : 12 Jul 2021 9:41 am
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:15:50 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

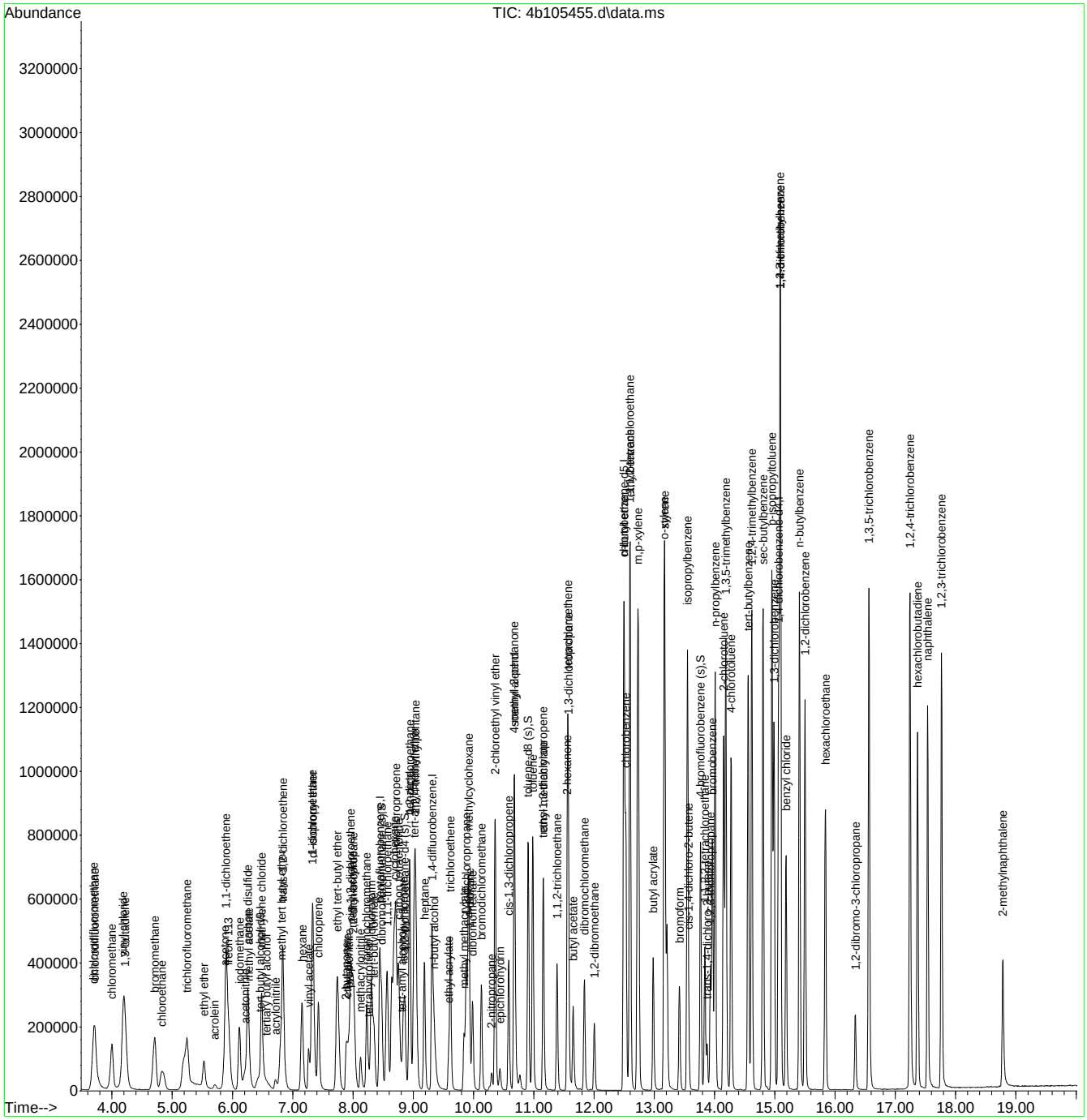
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	14.805	105	1092974	52.24	ug/L	99
109) p-isopropyltoluene	14.952	119	994380	52.81	ug/L	99
110) 1,3-dichlorobenzene	14.988	146	511361	54.33	ug/L	99
111) 1,2,3-trimethylbenzene	15.088	105	949525	54.35	ug/L	100
112) 1,4-dichlorobenzene	15.093	146	521993	53.50	ug/L	97
113) 1,2-dichlorobenzene	15.501	146	551717	54.93	ug/L	98
114) benzyl chloride	15.187	91	550510	62.15	ug/L	99
115) n-butylbenzene	15.407	92	497174	54.29	ug/L	99
116) hexachloroethane	15.841	201	190544	53.52	ug/L	95
117) 1,2-dibromo-3-chloropr...	16.338	157	78789	62.08	ug/L	99
118) 1,3,5-trichlorobenzene	16.563	180	581769	61.04	ug/L	99
119) 1,2,4-trichlorobenzene	17.243	180	542837	59.37	ug/L	100
120) hexachlorobutadiene	17.368	225	258987	59.31	ug/L	97
121) naphthalene	17.536	128	976499	55.28	ug/L	98
122) 1,2,3-trichlorobenzene	17.766	180	487553	60.09	ug/L	97
123) 2-methylnaphthalene	18.780	142	263226	25.05	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105455.d
Acq On : 12 Jul 2021 9:41 am
Operator : EddieH
Sample : bs Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:15:50 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105433.d
Acq On : 9 Jul 2021 11:44 pm
Operator : EddieH
Sample : JD27695-8ms Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:43:48 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.468	65	212412	500.00	ug/L	0.03
5) pentafluorobenzene	8.446	168	361267	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.309	114	451773	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	458795	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	339985	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.472	113	173595	54.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.34%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	174868	54.23	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.46%			
74) toluene-d8 (s)	10.909	98	549832	49.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.40%			
97) 4-bromofluorobenzene (s)	13.765	95	243775	48.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.64%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.568	59	126368	291.16	ug/L	99
4) 1,4-dioxane	9.947	88	49756	1270.95	ug/L	92
6) chlorodifluoromethane	3.712	51	212112	37.66	ug/L	94
7) dichlorodifluoromethane	3.702	85	407087	56.19	ug/L	99
8) chloromethane	3.995	50	302958	44.76	ug/L	99
9) vinyl chloride	4.188	62	322056	51.42	ug/L	98
10) 1,3-butadiene	4.199	54	207076	46.64	ug/L	98
11) bromomethane	4.706	94	223909	49.74	ug/L	99
12) chloroethane	4.826	64	134078	48.40	ug/L	96
13) trichlorofluoromethane	5.239	101	448661	65.97	ug/L	98
14) ethyl ether	5.532	74	53172	45.79	ug/L	91
15) acrolein	5.705	56	23653	52.82	ug/L	93
16) freon 113	5.919	151	186592	50.56	ug/L	96
17) 1,1-dichloroethene	5.893	61	232638	50.98	ug/L	95
18) acetone	5.888	58	45725	221.98	ug/L	92
19) acetonitrile	6.223	41	187162	520.03	ug/L	91
20) iodomethane	6.113	142	322123	47.41	ug/L	96
21) carbon disulfide	6.254	76	464852	39.84	ug/L	98
22) methylene chloride	6.484	84	156179	49.13	ug/L	96
23) methyl acetate	6.270	43	80604	44.04	ug/L	96
24) methyl tert butyl ether	6.819	73	425027	50.90	ug/L	100
25) trans-1,2-dichloroethene	6.835	61	210845	50.03	ug/L	98
26) hexane	7.154	56	99217	44.58	ug/L	96
27) di-isopropyl ether	7.331	45	509773	45.65	ug/L	98
28) 2-butanone	7.886	72	51160	261.39	ug/L #	65
29) 1,1-dichloroethane	7.326	63	259960	51.63	ug/L	98
30) chloroprene	7.426	53	203679	53.02	ug/L	98
31) acrylonitrile	6.714	53	44290	55.18	ug/L	96
32) vinyl acetate	7.263	86	17537	46.48	ug/L #	68
33) ethyl tert-butyl ether	7.739	59	511011	51.05	ug/L	97
34) ethyl acetate	7.912	45	17005	48.26	ug/L #	85
35) 2,2-dichloropropane	8.006	77	311180	53.69	ug/L	99
36) cis-1,2-dichloroethene	7.964	96	157398	52.26	ug/L	94
37) propionitrile	7.938	54	175226	556.26	ug/L	97
38) methyl acrylate	7.996	85	16845	53.32	ug/L #	52
39) methacrylonitrile	8.121	67	43150	52.85	ug/L	94
40) bromochloromethane	8.231	128	87017	55.16	ug/L	91
41) tetrahydrofuran	8.268	72	15272	54.21	ug/L	94
42) chloroform	8.304	83	278260	53.18	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105433.d
Acq On : 9 Jul 2021 11:44 pm
Operator : EddieH
Sample : JD27695-8ms Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:43:48 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.341	59	13080	4.65	ug/L		91
45) 1,1,1-trichloroethane	8.566	97	365305	58.56	ug/L		99
46) cyclohexane	8.686	84	296287	54.52	ug/L		96
48) 1,1-dichloropropene	8.712	75	186185	52.91	ug/L		99
49) carbon tetrachloride	8.754	117	341592	60.99	ug/L		100
50) tert-amyl alcohol	8.817	73	50492	355.08	ug/L		96
51) isopropyl acetate	8.838	87	27006	56.89	ug/L		98
54) n-butyl alcohol	9.345	41	180762	3001.45	ug/L		98
55) 2,2,4-trimethylpentane	9.037	57	606368	58.38	ug/L		98
56) benzene	8.937	78	511566	50.19	ug/L		99
57) tert-amyl methyl ether	9.016	73	514675	53.46	ug/L		99
58) heptane	9.183	57	99370	50.81	ug/L		93
59) 1,2-dichloroethane	8.942	62	194626	52.84	ug/L		96
60) ethyl acrylate	9.586	55	138020	53.55	ug/L		98
61) trichloroethene	9.617	95	144255	53.70	ug/L		96
63) methyl methacrylate	9.847	100	29119	55.87	ug/L	#	79
64) methylcyclohexane	9.920	83	324633	52.59	ug/L		96
65) 1,2-dichloropropane	9.879	63	136425	48.01	ug/L		100
66) dibromomethane	9.983	93	87988	53.51	ug/L		98
67) bromodichloromethane	10.130	83	205324	55.56	ug/L		97
68) 2-nitropropane	10.302	41	34440	67.00	ug/L		94
69) epichlorohydrin	10.443	57	45385	199.18	ug/L		96
70) cis-1,3-dichloropropene	10.585	75	217515	53.11	ug/L		98
71) 4-methyl-2-pentanone	10.674	58	229889	236.59	ug/L		95
72) isoamyl alcohol	10.679	70	118116	1618.89	ug/L	#	88
75) toluene	10.982	92	343340	51.89	ug/L		99
76) ethyl methacrylate	11.160	69	154536	54.96	ug/L		98
77) trans-1,3-dichloropropene	11.155	75	200105	55.24	ug/L		99
78) 1,1,2-trichloroethane	11.390	83	103478	54.07	ug/L		93
79) tetrachloroethene	11.568	164	154988	55.77	ug/L		97
80) 2-hexanone	11.552	58	202407	251.31	ug/L		98
81) 1,3-dichloropropane	11.573	76	193557	53.56	ug/L		98
82) butyl acetate	11.652	56	87227	56.36	ug/L		94
83) dibromochloromethane	11.840	129	183317	58.98	ug/L		98
84) 1,2-dibromoethane	12.007	107	139625	55.03	ug/L		99
85) n-butyl ether	12.499	57	677646	51.97	ug/L		98
86) chlorobenzene	12.525	112	423291	54.24	ug/L		100
87) 1,1,1,2-tetrachloroethane	12.593	131	222712	57.50	ug/L		98
88) ethylbenzene	12.598	91	755002	54.23	ug/L		97
89) m,p-xylene	12.729	106	584977	108.98	ug/L		99
90) o-xylene	13.163	91	685396	54.95	ug/L		97
91) styrene	13.179	104	437228	55.35	ug/L		98
92) butyl acrylate	12.980	55	312211	58.88	ug/L		99
93) isopropylbenzene	13.550	105	945320	56.06	ug/L		99
94) bromoform	13.419	173	154383	63.25	ug/L		98
95) cis-1,4-dichloro-2-butene	13.571	88	27196	36.74	ug/L		92
98) 1,1,2,2-tetrachloroethane	13.838	83	211128	52.62	ug/L		96
99) trans-1,4-dichloro-2-b...	13.874	53	23420	33.91	ug/L		87
100) 1,2,3-trichloropropane	13.932	110	59929	55.85	ug/L		99
101) bromobenzene	13.969	156	246589	52.52	ug/L		99
102) n-propylbenzene	14.010	91	1052756	52.06	ug/L		100
103) 2-chlorotoluene	14.152	126	228760	52.81	ug/L		95
104) 4-chlorotoluene	14.277	91	618122	54.04	ug/L		97
105) 1,3,5-trimethylbenzene	14.188	105	787828	50.85	ug/L		99
106) tert-butylbenzene	14.560	119	682313	54.71	ug/L		99
107) 1,2,4-trimethylbenzene	14.617	105	830261	51.71	ug/L		99
108) sec-butylbenzene	14.805	105	1108825	54.76	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105433.d
Acq On : 9 Jul 2021 11:44 pm
Operator : EddieH
Sample : JD27695-8ms Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:43:48 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

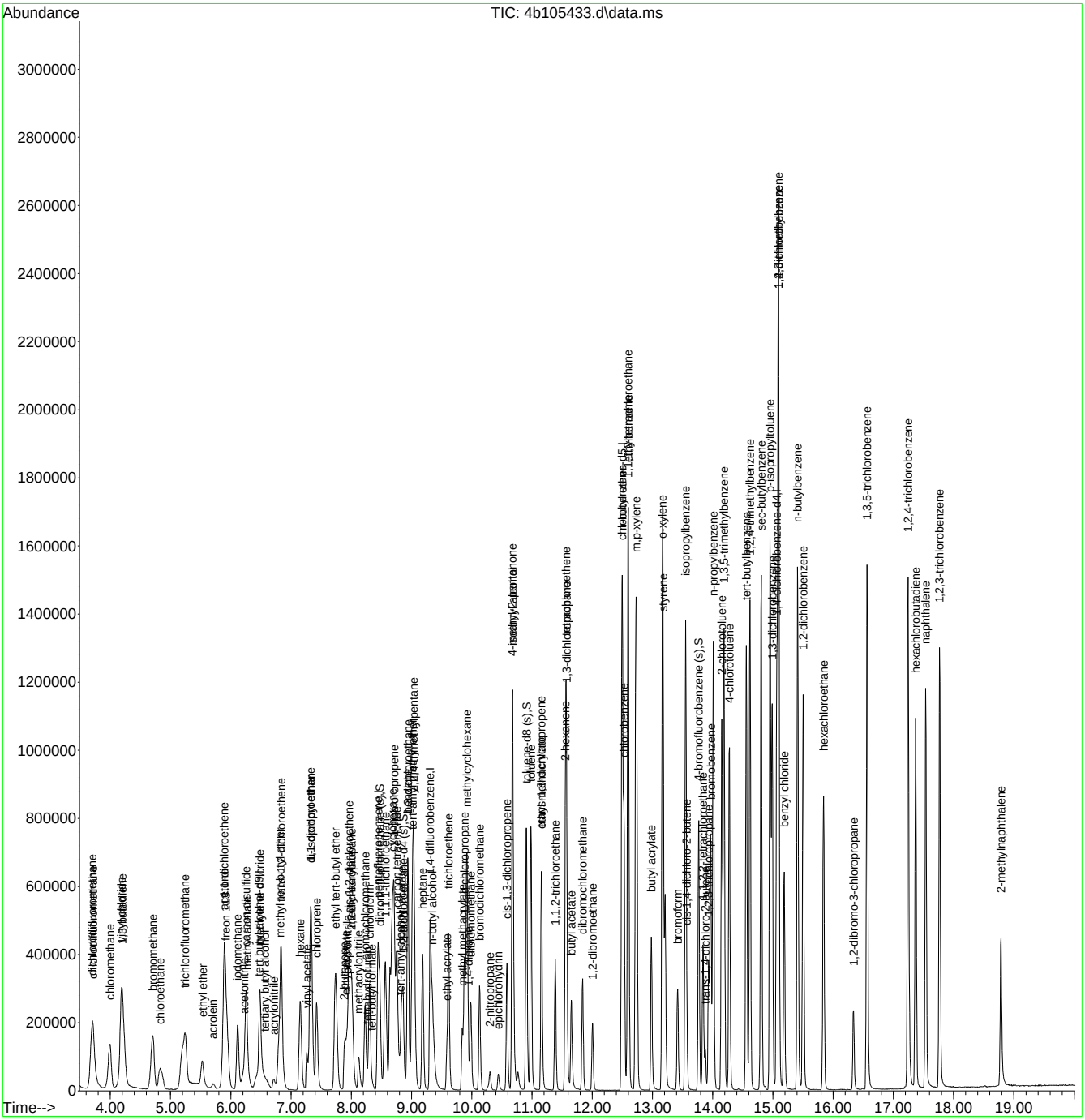
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	14.952	119	993739	54.53	ug/L	99
110) 1,3-dichlorobenzene	14.989	146	498757	54.76	ug/L	99
111) 1,2,3-trimethylbenzene	15.093	105	898493	53.15	ug/L	100
112) 1,4-dichlorobenzene	15.093	146	498525	52.80	ug/L	99
113) 1,2-dichlorobenzene	15.501	146	538802	55.43	ug/L	99
114) benzyl chloride	15.187	91	478214	55.79	ug/L	99
115) n-butylbenzene	15.407	92	495656	55.93	ug/L	99
116) hexachloroethane	15.841	201	181060	52.64	ug/L	95
117) 1,2-dibromo-3-chloropr...	16.338	157	79244	64.52	ug/L	96
118) 1,3,5-trichlorobenzene	16.563	180	562549	60.99	ug/L	99
119) 1,2,4-trichlorobenzene	17.243	180	522126	59.01	ug/L	100
120) hexachlorobutadiene	17.368	225	247189	58.50	ug/L	96
121) naphthalene	17.536	128	978604	57.25	ug/L	98
122) 1,2,3-trichlorobenzene	17.766	180	469385	59.78	ug/L	99
123) 2-methylnaphthalene	18.786	142	279975	27.53	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105433.d
Acq On : 9 Jul 2021 11:44 pm
Operator : EddieH
Sample : JD27695-8ms Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:43:48 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105434.d
Acq On : 10 Jul 2021 12:12 am
Operator : EddieH
Sample : JD27695-8msd Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:44:09 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.468	65	204324	500.00	ug/L	0.03
5) pentafluorobenzene	8.445	168	368921	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	462815	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	475719	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	343383	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	176979	54.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.16%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	170095	51.49	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.98%			
74) toluene-d8 (s)	10.909	98	575728	49.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%			
97) 4-bromofluorobenzene (s)	13.765	95	246534	48.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.78%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.562	59	121213	290.34	ug/L	99
4) 1,4-dioxane	9.941	88	49099	1303.81	ug/L	96
6) chlorodifluoromethane	3.712	51	231063	40.17	ug/L	98
7) dichlorodifluoromethane	3.696	85	426710	57.68	ug/L	99
8) chloromethane	3.994	50	333309	48.23	ug/L	99
9) vinyl chloride	4.188	62	354630	55.45	ug/L	99
10) 1,3-butadiene	4.198	54	224210	49.46	ug/L	99
11) bromomethane	4.706	94	236743	51.50	ug/L	96
12) chloroethane	4.837	64	140186	49.56	ug/L	95
13) trichlorofluoromethane	5.234	101	452993	65.23	ug/L	99
14) ethyl ether	5.516	74	54727	46.15	ug/L	87
15) acrolein	5.720	56	22233	48.62	ug/L	97
16) freon 113	5.935	151	193955	51.47	ug/L	98
17) 1,1-dichloroethene	5.898	61	231155	49.60	ug/L	97
18) acetone	5.872	58	44610	212.07	ug/L	96
19) acetonitrile	6.217	41	179429	488.20	ug/L	88
20) iodomethane	6.113	142	323051	46.56	ug/L	94
21) carbon disulfide	6.254	76	463632	38.91	ug/L	98
22) methylene chloride	6.484	84	156619	48.25	ug/L	96
23) methyl acetate	6.264	43	82365	44.07	ug/L	90
24) methyl tert butyl ether	6.814	73	430102	50.44	ug/L	98
25) trans-1,2-dichloroethene	6.834	61	208283	48.40	ug/L	95
26) hexane	7.154	56	99066	43.59	ug/L	95
27) di-isopropyl ether	7.326	45	521030	45.69	ug/L	99
28) 2-butanone	7.891	72	51942	259.88	ug/L #	71
29) 1,1-dichloroethane	7.326	63	261881	50.93	ug/L	98
30) chloroprene	7.425	53	206060	52.53	ug/L	97
31) acrylonitrile	6.719	53	43964	53.64	ug/L	90
32) vinyl acetate	7.263	86	19318	50.14	ug/L #	73
33) ethyl tert-butyl ether	7.734	59	524856	51.35	ug/L	95
34) ethyl acetate	7.907	45	17550	48.77	ug/L #	70
35) 2,2-dichloropropane	8.006	77	307514	51.96	ug/L	98
36) cis-1,2-dichloroethene	7.959	96	158941	51.68	ug/L	94
37) propionitrile	7.933	54	167320	520.14	ug/L	98
38) methyl acrylate	7.990	85	17462	54.10	ug/L #	57
39) methacrylonitrile	8.126	67	41782	50.11	ug/L	98
40) bromochloromethane	8.231	128	86075	53.43	ug/L	89
41) tetrahydrofuran	8.262	72	15394	53.51	ug/L	86
42) chloroform	8.304	83	278406	52.10	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105434.d
Acq On : 10 Jul 2021 12:12 am
Operator : EddieH
Sample : JD27695-8msd Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:44:09 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	tert-butyl formate	8.346	59	10330	3.60	ug/L		89
45)	1,1,1-trichloroethane	8.566	97	370209	58.12	ug/L		98
46)	cyclohexane	8.686	84	304718	54.91	ug/L		98
48)	1,1-dichloropropene	8.712	75	189689	52.79	ug/L		100
49)	carbon tetrachloride	8.754	117	340650	59.56	ug/L		97
50)	tert-amyl alcohol	8.806	73	45468	313.12	ug/L	#	75
51)	isopropyl acetate	8.838	87	26961	55.61	ug/L	#	87
54)	n-butyl alcohol	9.340	41	167218	2710.32	ug/L		94
55)	2,2,4-trimethylpentane	9.036	57	630541	59.26	ug/L		98
56)	benzene	8.937	78	518281	49.64	ug/L		99
57)	tert-amyl methyl ether	9.015	73	520031	52.73	ug/L		97
58)	heptane	9.188	57	104262	52.04	ug/L		93
59)	1,2-dichloroethane	8.942	62	196260	52.01	ug/L		94
60)	ethyl acrylate	9.586	55	140675	53.28	ug/L		98
61)	trichloroethene	9.617	95	144815	52.62	ug/L		97
63)	methyl methacrylate	9.842	100	30273	56.70	ug/L	#	89
64)	methylcyclohexane	9.920	83	339626	53.71	ug/L		96
65)	1,2-dichloropropane	9.878	63	140028	48.11	ug/L		99
66)	dibromomethane	9.983	93	90753	53.88	ug/L		97
67)	bromodichloromethane	10.130	83	208211	54.99	ug/L		99
68)	2-nitropropane	10.302	41	34903	66.28	ug/L		95
69)	epichlorohydrin	10.438	57	44126	189.03	ug/L		97
70)	cis-1,3-dichloropropene	10.585	75	226418	53.96	ug/L		99
71)	4-methyl-2-pentanone	10.679	58	225642	226.68	ug/L		96
72)	isoamyl alcohol	10.679	70	112185	1500.92	ug/L	#	86
75)	toluene	10.982	92	354486	51.67	ug/L		99
76)	ethyl methacrylate	11.160	69	155491	53.34	ug/L		99
77)	trans-1,3-dichloropropene	11.155	75	203366	54.14	ug/L		97
78)	1,1,2-trichloroethane	11.385	83	103492	52.15	ug/L		96
79)	tetrachloroethene	11.568	164	157309	54.59	ug/L		96
80)	2-hexanone	11.552	58	193125	231.25	ug/L		99
81)	1,3-dichloropropane	11.573	76	193701	51.70	ug/L		98
82)	butyl acetate	11.652	56	83387	51.96	ug/L		98
83)	dibromochloromethane	11.840	129	183275	56.87	ug/L		98
84)	1,2-dibromoethane	12.007	107	139308	52.95	ug/L		99
85)	n-butyl ether	12.499	57	686572	50.78	ug/L		99
86)	chlorobenzene	12.525	112	429535	53.08	ug/L		99
87)	1,1,1,2-tetrachloroethane	12.593	131	224401	55.87	ug/L		98
88)	ethylbenzene	12.598	91	763662	52.91	ug/L		99
89)	m,p-xylene	12.729	106	599179	107.66	ug/L		98
90)	o-xylene	13.163	91	688808	53.26	ug/L		98
91)	styrene	13.179	104	458332	55.96	ug/L		98
92)	butyl acrylate	12.980	55	308498	56.11	ug/L		98
93)	isopropylbenzene	13.550	105	962179	55.03	ug/L		99
94)	bromoform	13.419	173	149923	59.24	ug/L		100
95)	cis-1,4-dichloro-2-butene	13.571	88	25593	33.50	ug/L		99
98)	1,1,2,2-tetrachloroethane	13.838	83	202541	49.98	ug/L		98
99)	trans-1,4-dichloro-2-b...	13.874	53	22234	31.99	ug/L		95
100)	1,2,3-trichloropropane	13.932	110	58412	53.90	ug/L		88
101)	bromobenzene	13.969	156	243717	51.40	ug/L		99
102)	n-propylbenzene	14.010	91	1062592	52.03	ug/L		100
103)	2-chlorotoluene	14.152	126	229312	52.42	ug/L		96
104)	4-chlorotoluene	14.277	91	608827	52.70	ug/L		98
105)	1,3,5-trimethylbenzene	14.188	105	810000	51.76	ug/L		99
106)	tert-butylbenzene	14.560	119	684379	54.33	ug/L		98
107)	1,2,4-trimethylbenzene	14.617	105	839750	51.78	ug/L		99
108)	sec-butylbenzene	14.805	105	1121054	54.82	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105434.d
Acq On : 10 Jul 2021 12:12 am
Operator : EddieH
Sample : JD27695-8msd Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:44:09 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

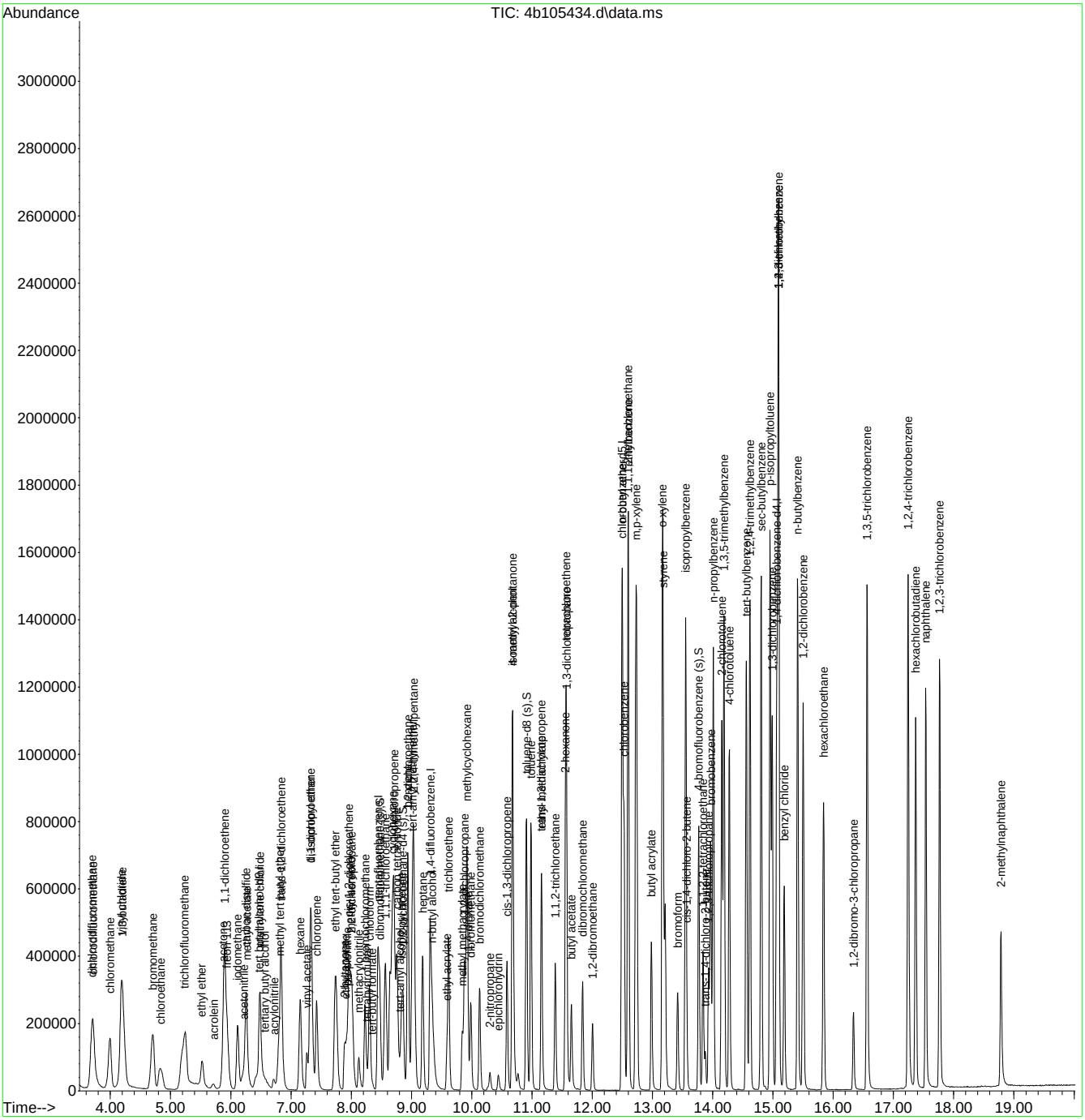
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	14.952	119	1009148	54.83	ug/L	100
110) 1,3-dichlorobenzene	14.988	146	486596	52.90	ug/L	99
111) 1,2,3-trimethylbenzene	15.093	105	914471	53.56	ug/L	99
112) 1,4-dichlorobenzene	15.093	146	496285	52.04	ug/L	99
113) 1,2-dichlorobenzene	15.501	146	527042	53.69	ug/L	99
114) benzyl chloride	15.187	91	454579	52.51	ug/L	97
115) n-butylbenzene	15.407	92	501269	56.01	ug/L	98
116) hexachloroethane	15.841	201	186621	53.62	ug/L	95
117) 1,2-dibromo-3-chloropr...	16.338	157	75299	60.71	ug/L	99
118) 1,3,5-trichlorobenzene	16.563	180	562743	60.41	ug/L	98
119) 1,2,4-trichlorobenzene	17.243	180	525906	58.85	ug/L	99
120) hexachlorobutadiene	17.368	225	262224	61.44	ug/L	99
121) naphthalene	17.536	128	974286	56.44	ug/L	99
122) 1,2,3-trichlorobenzene	17.766	180	471887	59.51	ug/L	99
123) 2-methylnaphthalene	18.786	142	299178	29.13	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105434.d
Acq On : 10 Jul 2021 12:12 am
Operator : EddieH
Sample : JD27695-8msd Inst : MS4B
Misc : MS52079,V4B4567,W,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:44:09 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105466.d
Acq On : 12 Jul 2021 2:54 pm
Operator : EddieH
Sample : JD27524-1ms Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:00 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.458	65	153792	500.00	ug/L	0.02
5) pentafluorobenzene	8.446	168	377542	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.309	114	478281	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	486795	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	365583	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	172304	51.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.90%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	183884	53.86	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 107.72%			
74) toluene-d8 (s)	10.904	98	575808	48.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.12%			
97) 4-bromofluorobenzene (s)	13.765	95	249330	46.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.88%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.531	59	90153	286.89	ug/L	90
4) 1,4-dioxane	9.936	88	29123	1027.46	ug/L	76
6) chlorodifluoromethane	3.712	51	265578	45.12	ug/L	96
7) dichlorodifluoromethane	3.697	85	454969	60.09	ug/L	95
8) chloromethane	4.000	50	319399	45.16	ug/L	98
9) vinyl chloride	4.199	62	330368	50.48	ug/L	99
10) 1,3-butadiene	4.220	54	230160	49.61	ug/L	97
11) bromomethane	4.711	94	246242	52.34	ug/L	99
12) chloroethane	4.832	64	147763	51.04	ug/L	97
13) trichlorofluoromethane	5.250	101	476232	67.01	ug/L	96
14) ethyl ether	5.527	74	55968	46.12	ug/L	98
15) acrolein	5.705	56	22496	48.07	ug/L	87
16) freon 113	5.930	151	212695	55.15	ug/L	95
17) 1,1-dichloroethene	5.899	61	265713	55.72	ug/L	96
18) acetone	5.867	58	40846	189.75	ug/L	93
19) acetonitrile	6.207	41	159426	423.87	ug/L	89
20) iodomethane	6.118	142	362050	50.99	ug/L	95
21) carbon disulfide	6.259	76	568190	46.60	ug/L	98
22) methylene chloride	6.484	84	170911	51.45	ug/L	93
23) methyl acetate	6.270	43	87905	45.96	ug/L	94
24) methyl tert butyl ether	6.819	73	443976	50.88	ug/L	97
25) trans-1,2-dichloroethene	6.835	61	233198	52.95	ug/L	98
26) hexane	7.154	56	116171	49.95	ug/L	93
27) di-isopropyl ether	7.332	45	542141	46.46	ug/L	97
28) 2-butanone	7.886	72	48119	235.25	ug/L #	61
29) 1,1-dichloroethane	7.332	63	285283	54.22	ug/L	98
30) chloroprene	7.426	53	229103	57.07	ug/L	97
31) acrylonitrile	6.714	53	43355	51.69	ug/L	94
32) vinyl acetate	7.264	86	21584	54.74	ug/L	98
33) ethyl tert-butyl ether	7.745	59	540471	51.67	ug/L	98
34) ethyl acetate	7.907	45	17434	47.34	ug/L #	74
35) 2,2-dichloropropane	8.006	77	361819	59.74	ug/L	98
36) cis-1,2-dichloroethene	7.959	96	174777	55.53	ug/L	97
37) propionitrile	7.933	54	156655	475.87	ug/L	97
38) methyl acrylate	7.996	85	16438	49.90	ug/L #	74
39) methacrylonitrile	8.127	67	41402	48.53	ug/L	96
40) bromochloromethane	8.226	128	93735	56.86	ug/L	94
41) tetrahydrofuran	8.268	72	15784	53.61	ug/L	98
42) chloroform	8.304	83	304180	55.62	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105466.d
Acq On : 12 Jul 2021 2:54 pm
Operator : EddieH
Sample : JD27524-1ms Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:00 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.341	59	141078	48.03	ug/L		96
45) 1,1,1-trichloroethane	8.566	97	391455	60.05	ug/L		97
46) cyclohexane	8.686	84	309477	54.50	ug/L		97
48) 1,1-dichloropropene	8.712	75	205639	55.92	ug/L		98
49) carbon tetrachloride	8.754	117	367203	62.73	ug/L		98
50) tert-amyl alcohol	8.812	73	32603	219.39	ug/L	#	82
51) isopropyl acetate	8.843	87	25975	52.36	ug/L	#	74
54) n-butyl alcohol	9.340	41	106323	1667.59	ug/L		98
55) 2,2,4-trimethylpentane	9.042	57	708852	64.46	ug/L		98
56) benzene	8.937	78	549639	50.94	ug/L		97
57) tert-amyl methyl ether	9.016	73	529303	51.93	ug/L		98
58) heptane	9.183	57	114963	55.53	ug/L		97
59) 1,2-dichloroethane	8.943	62	214440	54.99	ug/L		94
60) ethyl acrylate	9.591	55	139987	51.30	ug/L		98
61) trichloroethene	9.617	95	168328	59.19	ug/L		97
63) methyl methacrylate	9.847	100	28190	51.09	ug/L	#	87
64) methylcyclohexane	9.921	83	355054	54.33	ug/L		95
65) 1,2-dichloropropane	9.879	63	146223	48.61	ug/L		99
66) dibromomethane	9.983	93	95523	54.87	ug/L		96
67) bromodichloromethane	10.130	83	223350	57.08	ug/L		99
68) 2-nitropropane	10.302	41	36028	66.21	ug/L		99
69) epichlorohydrin	10.444	57	56518	234.29	ug/L		95
70) cis-1,3-dichloropropene	10.585	75	241985	55.81	ug/L		98
71) 4-methyl-2-pentanone	10.674	58	208504	202.69	ug/L		95
72) isoamyl alcohol	10.679	70	66909	866.22	ug/L	#	83
75) toluene	10.982	92	367352	52.32	ug/L		99
76) ethyl methacrylate	11.160	69	149197	50.01	ug/L		97
77) trans-1,3-dichloropropene	11.160	75	224358	58.37	ug/L		96
78) 1,1,2-trichloroethane	11.385	83	107922	53.15	ug/L		96
79) tetrachloroethene	11.568	164	163711	55.52	ug/L		98
80) 2-hexanone	11.552	58	176750	206.83	ug/L		99
81) 1,3-dichloropropane	11.573	76	202792	52.89	ug/L		96
82) butyl acetate	11.652	56	83701	50.97	ug/L		94
83) dibromochloromethane	11.840	129	193362	58.63	ug/L		99
84) 1,2-dibromoethane	12.002	107	144452	53.65	ug/L		96
85) n-butyl ether	12.499	57	711268	51.41	ug/L		99
86) chlorobenzene	12.525	112	451551	54.53	ug/L		99
87) 1,1,1,2-tetrachloroethane	12.593	131	233468	56.81	ug/L		99
88) ethylbenzene	12.598	91	798450	54.06	ug/L		100
89) m,p-xylene	12.724	106	622322	109.27	ug/L		97
90) o-xylene	13.163	91	719743	54.39	ug/L		100
91) styrene	13.179	104	463623	55.31	ug/L		99
92) butyl acrylate	12.980	55	291745	51.85	ug/L		98
93) isopropylbenzene	13.550	105	1004684	56.15	ug/L		98
94) bromoform	13.414	173	159566	61.62	ug/L		98
95) cis-1,4-dichloro-2-butene	13.571	88	37113	46.76	ug/L		95
98) 1,1,2,2-tetrachloroethane	13.838	83	209352	48.52	ug/L		98
99) trans-1,4-dichloro-2-b...	13.875	53	30117	40.19	ug/L		91
100) 1,2,3-trichloropropane	13.932	110	58641	50.82	ug/L		98
101) bromobenzene	13.964	156	257853	51.08	ug/L		97
102) n-propylbenzene	14.011	91	1109585	51.03	ug/L		99
103) 2-chlorotoluene	14.152	126	243737	52.33	ug/L		97
104) 4-chlorotoluene	14.272	91	651760	52.99	ug/L		98
105) 1,3,5-trimethylbenzene	14.183	105	840368	50.44	ug/L		98
106) tert-butylbenzene	14.560	119	733558	54.70	ug/L		99
107) 1,2,4-trimethylbenzene	14.617	105	875055	50.68	ug/L		98
108) sec-butylbenzene	14.800	105	1170327	53.75	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105466.d
Acq On : 12 Jul 2021 2:54 pm
Operator : EddieH
Sample : JD27524-1ms Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:00 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

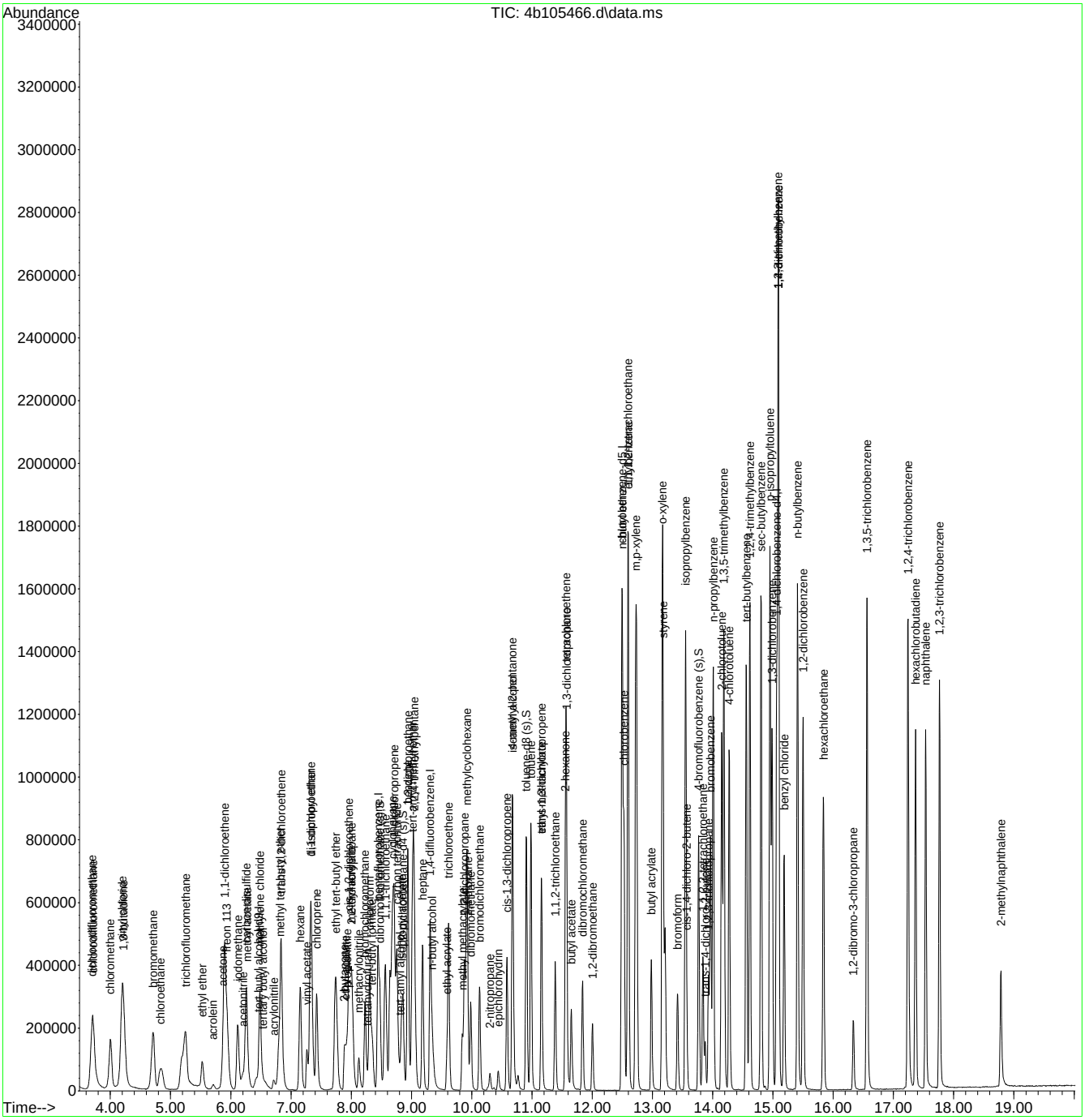
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	14.952	119	1045914	53.38	ug/L	100
110) 1,3-dichlorobenzene	14.983	146	518948	52.99	ug/L	97
111) 1,2,3-trimethylbenzene	15.088	105	955135	52.54	ug/L	99
112) 1,4-dichlorobenzene	15.093	146	524793	51.69	ug/L	99
113) 1,2-dichlorobenzene	15.501	146	554586	53.06	ug/L	98
114) benzyl chloride	15.187	91	563497	61.14	ug/L	99
115) n-butylbenzene	15.407	92	524846	55.08	ug/L	99
116) hexachloroethane	15.841	201	199988	53.94	ug/L	95
117) 1,2-dibromo-3-chloropr...	16.333	157	74206	56.19	ug/L	97
118) 1,3,5-trichlorobenzene	16.563	180	575760	58.05	ug/L	98
119) 1,2,4-trichlorobenzene	17.243	180	529822	55.69	ug/L	98
120) hexachlorobutadiene	17.368	225	263679	58.03	ug/L	98
121) naphthalene	17.536	128	950677	51.72	ug/L	99
122) 1,2,3-trichlorobenzene	17.766	180	466955	55.31	ug/L	99
123) 2-methylnaphthalene	18.786	142	240748	22.02	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105466.d
Acq On : 12 Jul 2021 2:54 pm
Operator : EddieH
Sample : JD27524-1ms Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:00 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105467.d
Acq On : 12 Jul 2021 3:23 pm
Operator : EddieH
Sample : JD27524-1msd Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:16 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.442	65	164020	500.00	ug/L		0.00
5) pentafluorobenzene	8.445	168	391500	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	505721	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	519087	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.062	152	366481	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	180835	52.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.14%				
53) 1,2-dichloroethane-d4 (s)	8.864	65	189232	52.42	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.84%				
74) toluene-d8 (s)	10.909	98	602217	47.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.26%				
97) 4-bromofluorobenzene (s)	13.770	95	256186	47.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.20%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.547	59	95998	286.45	ug/L		98
4) 1,4-dioxane	9.936	88	36255	1199.32	ug/L		90
6) chlorodifluoromethane	3.712	51	305964	50.12	ug/L		97
7) dichlorodifluoromethane	3.691	85	492449	62.72	ug/L		98
8) chloromethane	4.000	50	380305	51.85	ug/L		97
9) vinyl chloride	4.198	62	377434	55.61	ug/L		95
10) 1,3-butadiene	4.214	54	254094	52.82	ug/L	#	82
11) bromomethane	4.706	94	264678	54.26	ug/L		96
12) chloroethane	4.842	64	158973	52.96	ug/L		91
13) trichlorofluoromethane	5.244	101	501069	67.99	ug/L		97
14) ethyl ether	5.527	74	59807	47.53	ug/L		99
15) acrolein	5.715	56	24267	50.01	ug/L		93
16) freon 113	5.924	151	213089	53.29	ug/L		98
17) 1,1-dichloroethene	5.893	61	266726	53.94	ug/L		98
18) acetone	5.872	58	41819	187.34	ug/L		100
19) acetonitrile	6.217	41	166696	427.40	ug/L		88
20) iodomethane	6.113	142	364118	49.45	ug/L		94
21) carbon disulfide	6.259	76	576603	45.60	ug/L		99
22) methylene chloride	6.484	84	169222	49.12	ug/L		93
23) methyl acetate	6.270	43	89030	44.89	ug/L		93
24) methyl tert butyl ether	6.819	73	457246	50.53	ug/L		96
25) trans-1,2-dichloroethene	6.834	61	233316	51.09	ug/L		97
26) hexane	7.148	56	116071	48.13	ug/L		92
27) di-isopropyl ether	7.331	45	549426	45.40	ug/L		96
28) 2-butanone	7.886	72	50120	236.30	ug/L	#	61
29) 1,1-dichloroethane	7.326	63	283980	52.04	ug/L		100
30) chloroprene	7.425	53	232451	55.84	ug/L		94
31) acrylonitrile	6.714	53	45568	52.39	ug/L		95
32) vinyl acetate	7.269	86	22821	55.81	ug/L	#	53
33) ethyl tert-butyl ether	7.739	59	553521	51.03	ug/L		98
34) ethyl acetate	7.912	45	19076	49.95	ug/L	#	83
35) 2,2-dichloropropane	8.006	77	360116	57.34	ug/L		97
36) cis-1,2-dichloroethene	7.964	96	179705	55.06	ug/L		92
37) propionitrile	7.938	54	157881	462.49	ug/L		98
38) methyl acrylate	7.996	85	18112	52.91	ug/L	#	84
39) methacrylonitrile	8.121	67	44057	49.80	ug/L		91
40) bromochloromethane	8.231	128	92959	54.38	ug/L		94
41) tetrahydrofuran	8.262	72	15281	50.06	ug/L		87
42) chloroform	8.304	83	306785	54.10	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105467.d
Acq On : 12 Jul 2021 3:23 pm
Operator : EddieH
Sample : JD27524-1msd Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:16 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.341	59	117593	38.60	ug/L		95
45) 1,1,1-trichloroethane	8.560	97	391469	57.91	ug/L		97
46) cyclohexane	8.691	84	328774	55.83	ug/L		93
48) 1,1-dichloropropene	8.712	75	210544	55.21	ug/L		97
49) carbon tetrachloride	8.754	117	365519	60.22	ug/L		97
50) tert-amyl alcohol	8.812	73	33090	214.73	ug/L	#	75
51) isopropyl acetate	8.838	87	26945	52.37	ug/L	#	92
54) n-butyl alcohol	9.345	41	131854	1955.81	ug/L		95
55) 2,2,4-trimethylpentane	9.042	57	705998	60.72	ug/L		100
56) benzene	8.937	78	563315	49.38	ug/L		100
57) tert-amyl methyl ether	9.015	73	540392	50.14	ug/L		98
58) heptane	9.188	57	115378	52.71	ug/L		93
59) 1,2-dichloroethane	8.947	62	216041	52.39	ug/L		94
60) ethyl acrylate	9.591	55	140786	48.80	ug/L		98
61) trichloroethene	9.617	95	170278	56.63	ug/L		98
63) methyl methacrylate	9.842	100	29393	50.38	ug/L		91
64) methylcyclohexane	9.920	83	356055	51.53	ug/L		96
65) 1,2-dichloropropane	9.878	63	151184	47.53	ug/L		100
66) dibromomethane	9.983	93	96963	52.68	ug/L		95
67) bromodichloromethane	10.130	83	225816	54.58	ug/L		95
68) 2-nitropropane	10.302	41	35214	61.20	ug/L		95
69) epichlorohydrin	10.443	57	57937	227.14	ug/L		97
70) cis-1,3-dichloropropene	10.585	75	252494	55.07	ug/L		96
71) 4-methyl-2-pentanone	10.679	58	214035	196.78	ug/L		93
72) isoamyl alcohol	10.679	70	76284	934.01	ug/L	#	84
75) toluene	10.982	92	374103	49.97	ug/L		98
76) ethyl methacrylate	11.160	69	152992	48.09	ug/L		97
77) trans-1,3-dichloropropene	11.160	75	230461	56.23	ug/L		98
78) 1,1,2-trichloroethane	11.385	83	109451	50.55	ug/L		100
79) tetrachloroethene	11.568	164	168239	53.51	ug/L		98
80) 2-hexanone	11.552	58	180717	198.32	ug/L		96
81) 1,3-dichloropropane	11.573	76	210739	51.54	ug/L		95
82) butyl acetate	11.652	56	83900	47.91	ug/L		99
83) dibromochloromethane	11.840	129	198019	56.31	ug/L		99
84) 1,2-dibromoethane	12.002	107	148409	51.69	ug/L		98
85) n-butyl ether	12.499	57	727856	49.33	ug/L		98
86) chlorobenzene	12.525	112	463391	52.48	ug/L		98
87) 1,1,1,2-tetrachloroethane	12.598	131	233875	53.37	ug/L		97
88) ethylbenzene	12.598	91	817875	51.93	ug/L		99
89) m,p-xylene	12.729	106	632108	104.08	ug/L		100
90) o-xylene	13.163	91	729046	51.66	ug/L		98
91) styrene	13.179	104	477177	53.39	ug/L		98
92) butyl acrylate	12.980	55	295421	49.24	ug/L		98
93) isopropylbenzene	13.550	105	1013652	53.13	ug/L		99
94) bromoform	13.419	173	161451	58.47	ug/L		99
95) cis-1,4-dichloro-2-butene	13.571	88	36278	43.01	ug/L		97
98) 1,1,2,2-tetrachloroethane	13.838	83	211455	48.89	ug/L		99
99) trans-1,4-dichloro-2-b...	13.874	53	29654	39.51	ug/L		88
100) 1,2,3-trichloropropane	13.932	110	59341	51.30	ug/L		89
101) bromobenzene	13.969	156	263788	52.13	ug/L		98
102) n-propylbenzene	14.010	91	1124707	51.60	ug/L		100
103) 2-chlorotoluene	14.152	126	249807	53.50	ug/L		94
104) 4-chlorotoluene	14.277	91	647719	52.54	ug/L		97
105) 1,3,5-trimethylbenzene	14.188	105	856713	51.29	ug/L		100
106) tert-butylbenzene	14.560	119	725878	53.99	ug/L		98
107) 1,2,4-trimethylbenzene	14.617	105	888747	51.35	ug/L		98
108) sec-butylbenzene	14.805	105	1172640	53.73	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105467.d
Acq On : 12 Jul 2021 3:23 pm
Operator : EddieH
Sample : JD27524-1msd Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:16 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

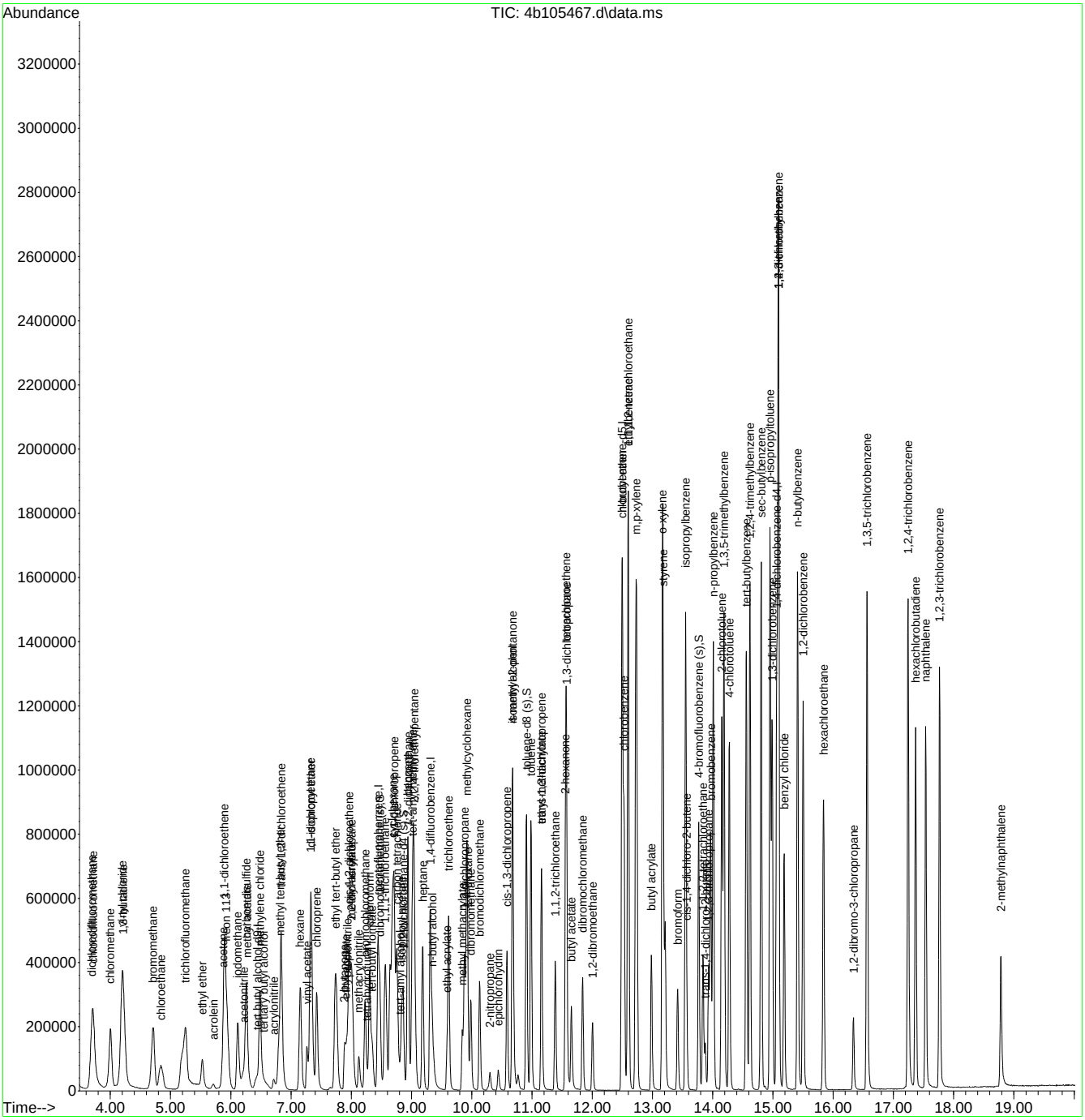
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	14.952	119	1048957	53.40	ug/L	100
110) 1,3-dichlorobenzene	14.988	146	515110	52.47	ug/L	98
111) 1,2,3-trimethylbenzene	15.093	105	964244	52.92	ug/L	100
112) 1,4-dichlorobenzene	15.093	146	523746	51.46	ug/L	98
113) 1,2-dichlorobenzene	15.501	146	549527	52.45	ug/L	98
114) benzyl chloride	15.187	91	553350	59.89	ug/L	100
115) n-butylbenzene	15.407	92	523869	54.84	ug/L	99
116) hexachloroethane	15.841	201	197790	53.28	ug/L	96
117) 1,2-dibromo-3-chloropr...	16.338	157	75967	57.38	ug/L	97
118) 1,3,5-trichlorobenzene	16.563	180	574556	57.79	ug/L	99
119) 1,2,4-trichlorobenzene	17.243	180	531554	55.73	ug/L	98
120) hexachlorobutadiene	17.368	225	261331	57.38	ug/L	98
121) naphthalene	17.536	128	961330	52.18	ug/L	99
122) 1,2,3-trichlorobenzene	17.766	180	478111	56.49	ug/L	99
123) 2-methylnaphthalene	18.786	142	268388	24.49	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105467.d
Acq On : 12 Jul 2021 3:23 pm
Operator : EddieH
Sample : JD27524-1msd Inst : MS4B
Misc : MS51987,V4B4568,W,,,,1
ALS Vial : 17 Sample Multiplier: 1

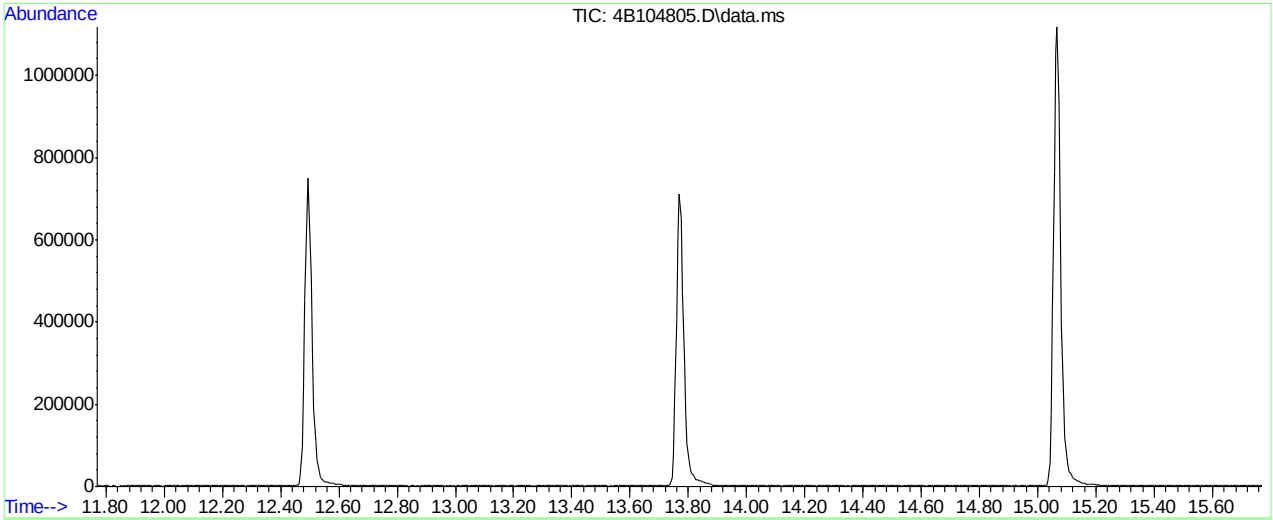
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:57:16 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\V4B4538\4B104805.D Vial: 2
Acq On : 16 Jun 2021 5:22 pm Operator: EddieH
Sample : bfb Inst : MS4B
Misc : MS51263,V4B4538,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:41:19 2021



AutoFind: Scans 1966, 1967, 1968; Background Corrected with Scan 1958

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	22690	PASS
75	95	30	60	46.7	58994	PASS
95	95	100	100	100.0	126234	PASS
96	95	5	9	6.5	8207	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	104.7	132154	PASS
175	174	5	9	8.0	10592	PASS
176	174	95	101	96.1	127026	PASS
177	176	5	9	7.2	9088	PASS

4B104805.D M4B4538.M Thu Jun 17 15:01:14 2021 MS4B

Average of 13.765 to 13.775 min.: 4B104805.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1110	50.10	22690	64.00	352	76.05	5359
37.10	6004	51.10	6746	67.10	518	77.05	641
38.10	4829	52.15	234	68.05	11499	77.95	450
39.10	2050	55.05	389	69.10	11916	79.00	2704
40.00	65	56.05	1726	70.10	936	80.00	671
44.00	564	57.05	3253	71.00	57	81.00	2911
45.10	934	58.10	55	71.20	61	82.00	607
46.10	57	60.00	1065	72.05	675	85.85	125
47.10	1757	61.05	5061	73.05	4595	87.00	5460
48.00	773	62.10	4695	74.10	19554	87.95	5368
49.10	4749	63.10	3755	75.10	58994	91.05	520

Average of 13.765 to 13.775 min.: 4B104805.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.05	3295	114.95	198	140.95	1320	160.85	175
93.00	4961	115.95	369	141.90	229	161.10	90
94.10	14288	116.90	703	142.90	1312	171.20	58
95.10	126234	117.90	368	145.85	239	171.40	93
96.10	8207	118.95	523	146.90	56	172.00	70
97.05	255	127.95	526	147.95	419	174.00	132154
102.90	61	128.95	242	149.95	135	175.00	10592
103.90	505	130.00	377	152.90	64	176.00	127026
104.95	244	134.95	272	154.95	376	176.95	9088
105.95	479	136.95	206	156.95	384	177.90	291
112.10	69	140.00	197	158.95	207	191.00	59

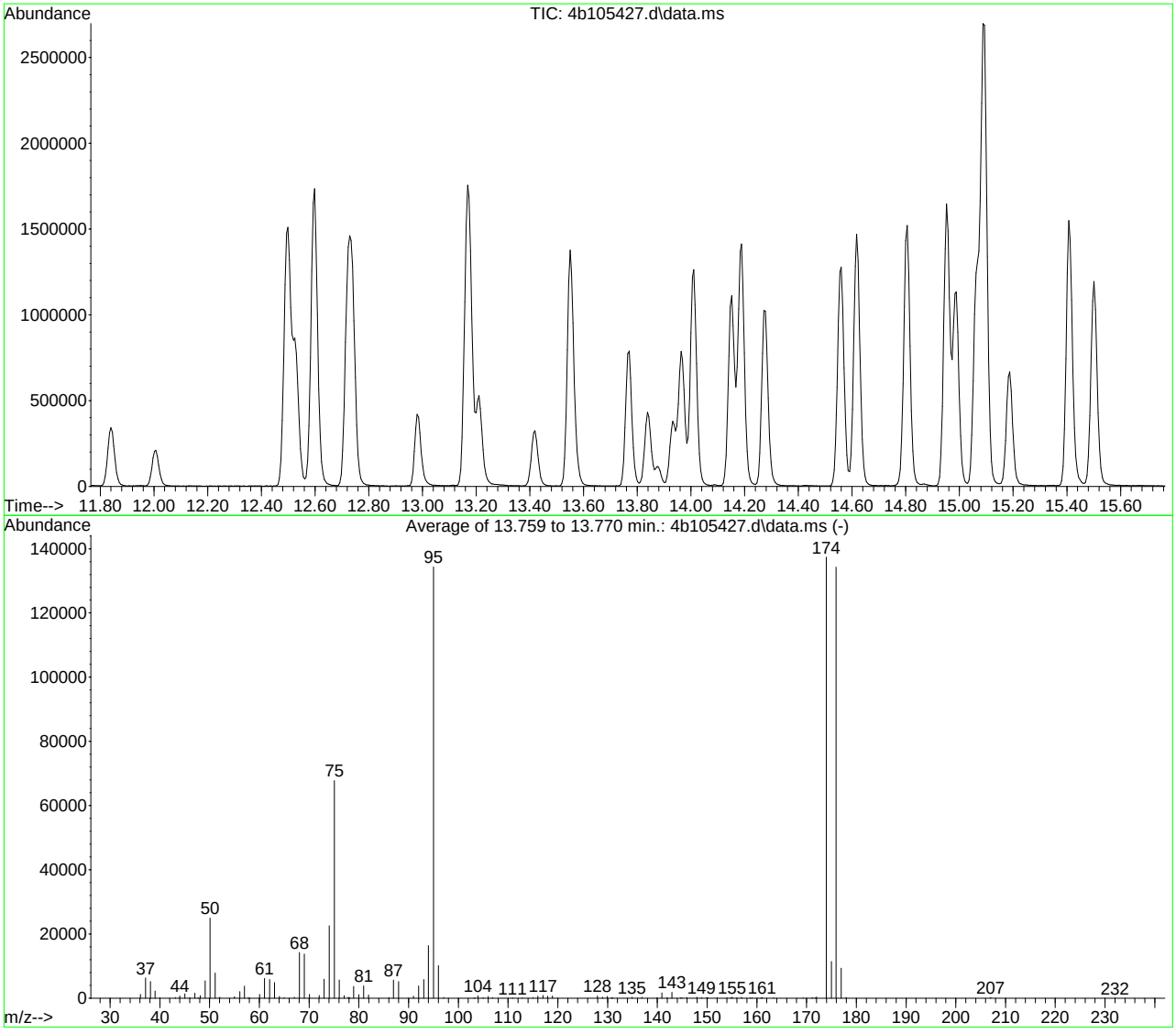
Average of 13.765 to 13.775 min.: 4B104805.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.80	51						
207.10	166						

SW-846 Method 8260

Data File : C:\msdchem\1\data\kr...21\v4b4567\4b105427.d Vial: 28
Acq On : 9 Jul 2021 8:53 pm Operator: EddieH
Sample : bfb Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021



AutoFind: Scans 1965, 1966, 1967; Background Corrected with Scan 1956

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	24933	PASS
75	95	30	60	50.4	67736	PASS
95	95	100	100	100.0	134349	PASS
96	95	5	9	7.5	10130	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	102.3	137384	PASS
175	174	5	9	8.3	11378	PASS
176	174	95	101	97.8	134307	PASS
177	176	5	9	6.9	9325	PASS

4b105427.d M4B4538.M Mon Jul 12 11:06:25 2021

Average of 13.759 to 13.770 min.: 4b105427.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1192	48.10	763	61.05	6110	74.05	22579
37.10	6310	49.10	5375	62.05	5839	75.10	67736
38.10	5136	50.10	24933	63.05	4820	76.05	5646
39.05	2215	51.10	7809	64.05	540	77.05	798
40.00	95	52.05	298	64.95	160	77.85	310
43.10	200	55.00	432	67.00	293	78.10	186
44.00	717	56.05	2066	68.05	14210	78.95	3620
45.00	1298	57.00	3708	69.05	13710	80.00	1067
46.00	113	57.80	69	70.05	1206	80.95	3813
47.05	1579	58.00	99	72.05	820	81.95	991
47.70	122	60.05	1131	73.00	5878	86.10	108

Average of 13.759 to 13.770 min.: 4b105427.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.95	5657	103.95	707	127.95	664	144.70	66
88.00	5175	105.00	110	129.00	277	144.95	115
91.00	626	106.00	567	129.90	556	145.90	221
92.00	3833	106.90	99	130.80	110	147.95	296
93.05	5792	110.90	54	131.00	90	148.90	109
94.00	16374	112.90	77	134.95	326	149.95	233
95.00	134349	115.00	112	136.90	317	150.20	59
96.00	10130	115.95	631	139.90	61	152.00	129
97.10	216	117.00	821	140.90	1614	154.00	50
103.10	57	117.95	628	141.95	146	154.80	120
103.30	53	118.90	712	142.95	1778	155.05	312

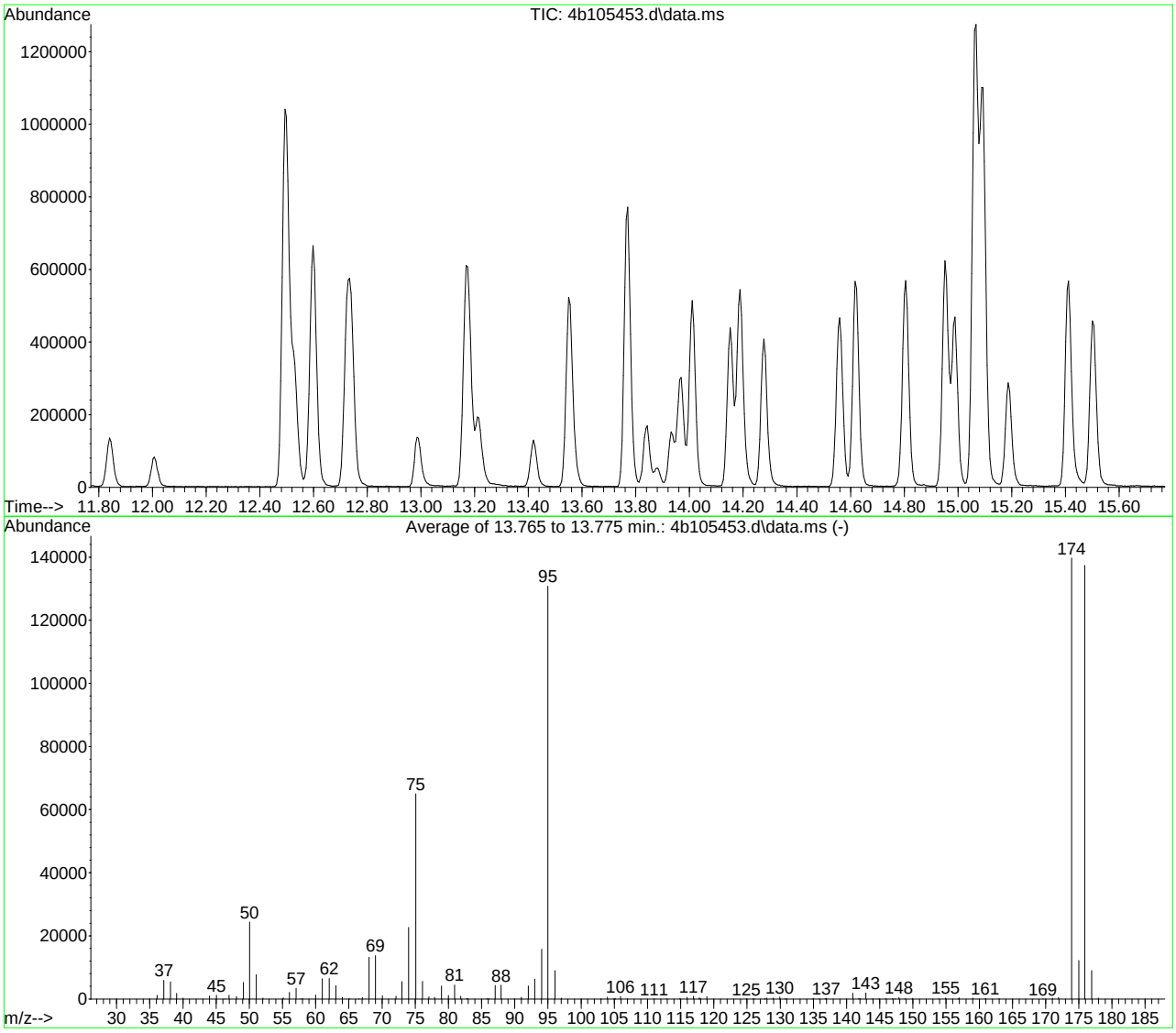
Average of 13.759 to 13.770 min.: 4b105427.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
156.00	61	173.95	137384				
156.95	281	175.00	11378				
158.70	53	175.95	134307				
159.00	67	176.95	9325				
160.80	73	177.95	244				
161.05	170	207.00	194				
163.40	50	232.00	52				
169.30	69						
171.10	177						
171.70	139						
172.00	346						

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...b4568-rush\4b105453.d Vial: 3
Acq On : 12 Jul 2021 8:44 am Operator: EddieH
Sample : BFB Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B4538.M (RTE Integrator)
Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021



AutoFind: Scans 1966, 1967, 1968; Background Corrected with Scan 1957

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	24365	PASS
75	95	30	60	49.7	64981	PASS
95	95	100	100	100.0	130757	PASS
96	95	5	9	6.9	8993	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	106.8	139688	PASS
175	174	5	9	8.7	12167	PASS
176	174	95	101	98.4	137389	PASS
177	176	5	9	6.6	9031	PASS

4b105453.d M4B4538.M Mon Jul 12 22:14:21 2021

Average of 13.765 to 13.775 min.: 4b105453.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1159	50.05	24365	63.05	4229	75.10	64981
37.10	5917	51.05	7713	64.00	569	76.10	5602
38.10	5410	52.05	286	65.10	52	77.05	670
39.05	1754	55.10	389	66.50	55	77.90	504
40.00	288	56.05	2046	67.05	489	78.95	4150
44.00	928	57.05	3357	68.05	13205	80.00	1127
45.05	1172	57.80	72	69.00	13752	80.95	4432
46.30	78	58.00	78	70.05	1053	81.85	863
46.95	1194	60.00	1281	72.10	872	82.80	107
48.05	815	61.00	6410	73.00	5543	83.00	57
49.10	5268	62.05	6506	74.00	22701	85.80	90

Average of 13.765 to 13.775 min.: 4b105453.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.10	108	103.00	63	117.80	259	130.95	144
87.05	4317	103.95	607	117.95	319	134.80	80
87.95	4348	104.90	85	118.95	752	135.05	200
89.90	58	105.15	135	124.90	53	135.90	51
91.00	538	105.95	805	125.90	73	136.80	124
92.05	4127	107.00	68	126.10	54	136.95	241
93.00	6309	111.00	63	127.70	204	140.95	1816
94.05	15775	112.90	72	127.95	297	141.85	213
95.00	130757	114.90	161	128.95	304	142.10	82
96.05	8993	115.95	534	129.95	588	142.90	1929
97.05	278	116.95	893	130.70	68	143.90	60

Average of 13.765 to 13.775 min.: 4b105453.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.90	78	159.00	284				
145.90	88	160.90	212				
146.95	151	163.00	53				
147.30	63	169.60	55				
147.90	422	171.05	206				
148.80	60	171.95	428				
149.90	174	173.90	139688				
153.90	52	175.00	12167				
154.95	401	175.90	137389				
156.80	84	176.95	9031				
156.95	344	177.95	256				

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104806.D
Acq On : 16 Jun 2021 5:57 pm
Operator : EddieH
Sample : ic4538-0.2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 11:21:57 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

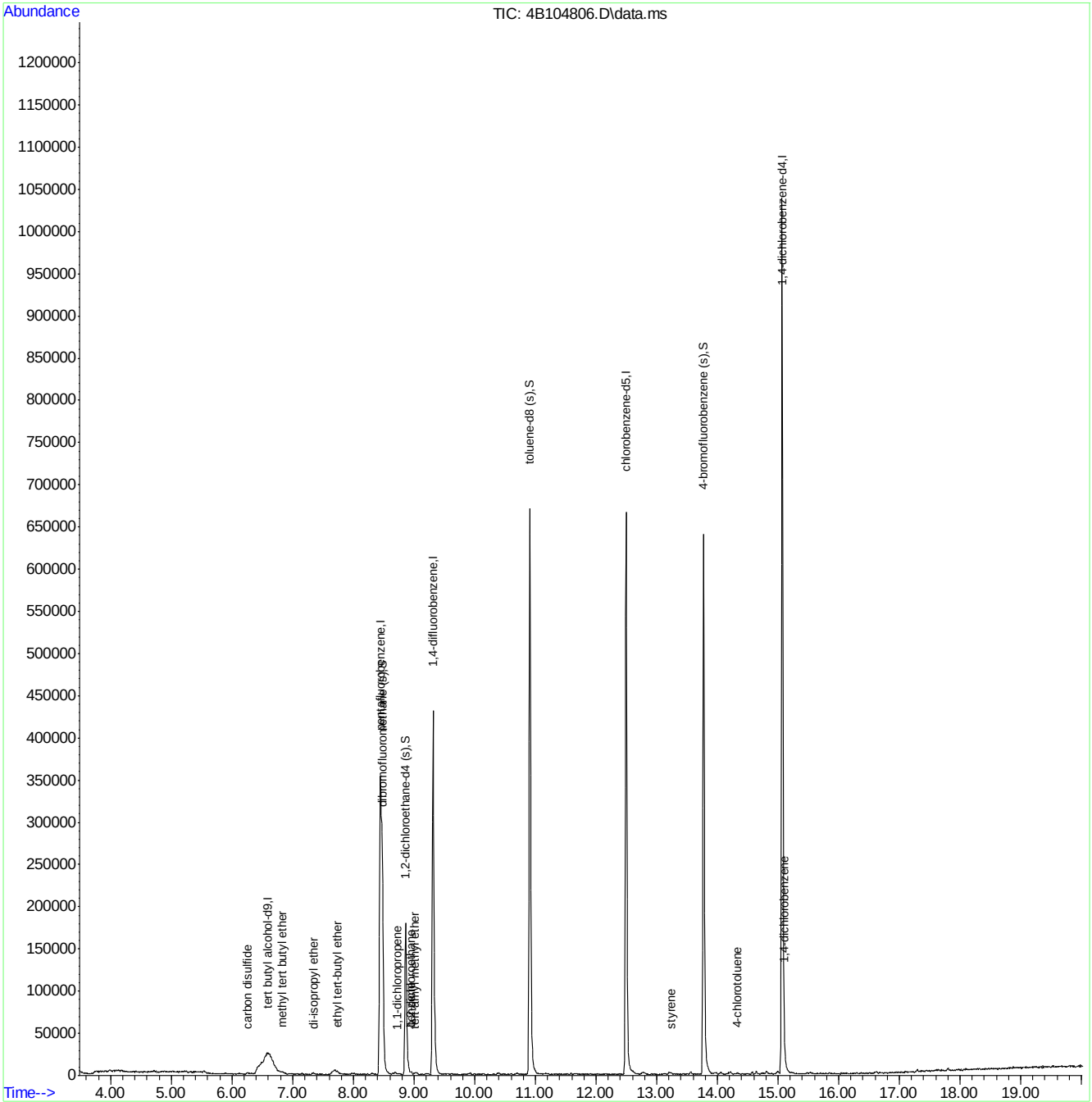
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.578	65	195663	500.00	ug/L		0.08
5) pentafluorobenzene	8.445	168	309286	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	398555	50.00	ug/L		0.00
73) chlorobenzene-d5	12.499	117	418479	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	317869	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	138129	49.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.86%				
53) 1,2-dichloroethane-d4 (s)	8.864	65	142086	49.32	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.64%				
74) toluene-d8 (s)	10.909	98	491473	47.89	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.78%				
97) 4-bromofluorobenzene (s)	13.770	95	223514	47.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.40%				
Target Compounds							Qvalue
21) carbon disulfide	6.254	76	2259	0.20	ug/L		67
24) methyl tert butyl ether	6.824	73	1478	0.19	ug/L		56
27) di-isopropyl ether	7.347	45	1821	0.17	ug/L		66
33) ethyl tert-butyl ether	7.739	59	1685	0.17	ug/L	#	64
48) 1,1-dichloropropene	8.728	75	592	0.17	ug/L	#	41
56) benzene	8.948	78	1708	0.17	ug/L		70
57) tert-amyl methyl ether	9.010	73	1844	0.19	ug/L		75
59) 1,2-dichloroethane	8.953	62	744	0.21	ug/L	#	48
91) styrene	13.236	104	1470	0.17	ug/L		70
104) 4-chlorotoluene	14.330	91	1957	0.16	ug/L		90
112) 1,4-dichlorobenzene	15.098	146	1781	0.18	ug/L	#	57

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104806.D
Acq On : 16 Jun 2021 5:57 pm
Operator : EddieH
Sample : ic4538-0.2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 21 11:21:57 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104807.D
Acq On : 16 Jun 2021 6:25 pm
Operator : EddieH
Sample : ic4538-0.5
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 17 15:03:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.495	65	180953	500.00	ug/L		0.00
5) pentafluorobenzene	8.445	168	346684	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	434249	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	437114	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	321005	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	154004	49.66	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.32%				
53) 1,2-dichloroethane-d4 (s)	8.864	65	154886	49.34	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.68%				
74) toluene-d8 (s)	10.909	98	525897	49.06	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.12%				
97) 4-bromofluorobenzene (s)	13.770	95	230792	48.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.52%				
Target Compounds							Qvalue
8) chloromethane	3.979	50	3359	0.46	ug/L		87
12) chloroethane	4.831	64	1367	0.47	ug/L	#	44
13) trichlorofluoromethane	5.239	101	3100	0.39	ug/L		76
17) 1,1-dichloroethene	5.904	61	1910	0.38	ug/L	#	82
20) iodomethane	6.113	142	2944	0.40	ug/L		86
21) carbon disulfide	6.259	76	5162	0.42	ug/L		79
22) methylene chloride	6.489	84	1459	0.43	ug/L		88
24) methyl tert butyl ether	6.819	73	3743	0.43	ug/L		77
26) hexane	7.154	56	1117	0.45	ug/L	#	46
27) di-isopropyl ether	7.331	45	4909	0.40	ug/L		91
29) 1,1-dichloroethane	7.331	63	2098	0.38	ug/L		83
33) ethyl tert-butyl ether	7.734	59	4410	0.40	ug/L		79
35) 2,2-dichloropropane	8.011	77	2637	0.42	ug/L		68
36) cis-1,2-dichloroethene	7.954	96	1438	0.46	ug/L	#	49
40) bromochloromethane	8.231	128	594	0.34	ug/L	#	53
42) chloroform	8.304	83	2392	0.43	ug/L		80
45) 1,1,1-trichloroethane	8.560	97	2655	0.37	ug/L		93
46) cyclohexane	8.681	84	2611	0.41	ug/L	#	78
48) 1,1-dichloropropene	8.723	75	1439	0.37	ug/L		88
55) 2,2,4-trimethylpentane	9.036	57	4071	0.33	ug/L		79
56) benzene	8.937	78	4616	0.41	ug/L		86
57) tert-amyl methyl ether	9.016	73	4276	0.40	ug/L		85
58) heptane	9.193	57	805	0.37	ug/L	#	57
59) 1,2-dichloroethane	8.953	62	1813	0.48	ug/L		88
65) 1,2-dichloropropane	9.889	63	1260	0.41	ug/L		85
66) dibromomethane	9.988	93	759	0.43	ug/L		94
67) bromodichloromethane	10.135	83	1679	0.41	ug/L	#	55
75) toluene	10.982	92	2769	0.39	ug/L	#	66
77) trans-1,3-dichloropropene	11.170	75	1473	0.36	ug/L	#	69
78) 1,1,2-trichloroethane	11.395	83	763	0.36	ug/L	#	76
81) 1,3-dichloropropane	11.584	76	1485	0.38	ug/L		77
83) dibromochloromethane	11.850	129	1364	0.39	ug/L		76

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104807.D
Acq On : 16 Jun 2021 6:25 pm
Operator : EddieH
Sample : ic4538-0.5
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 17 15:03:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

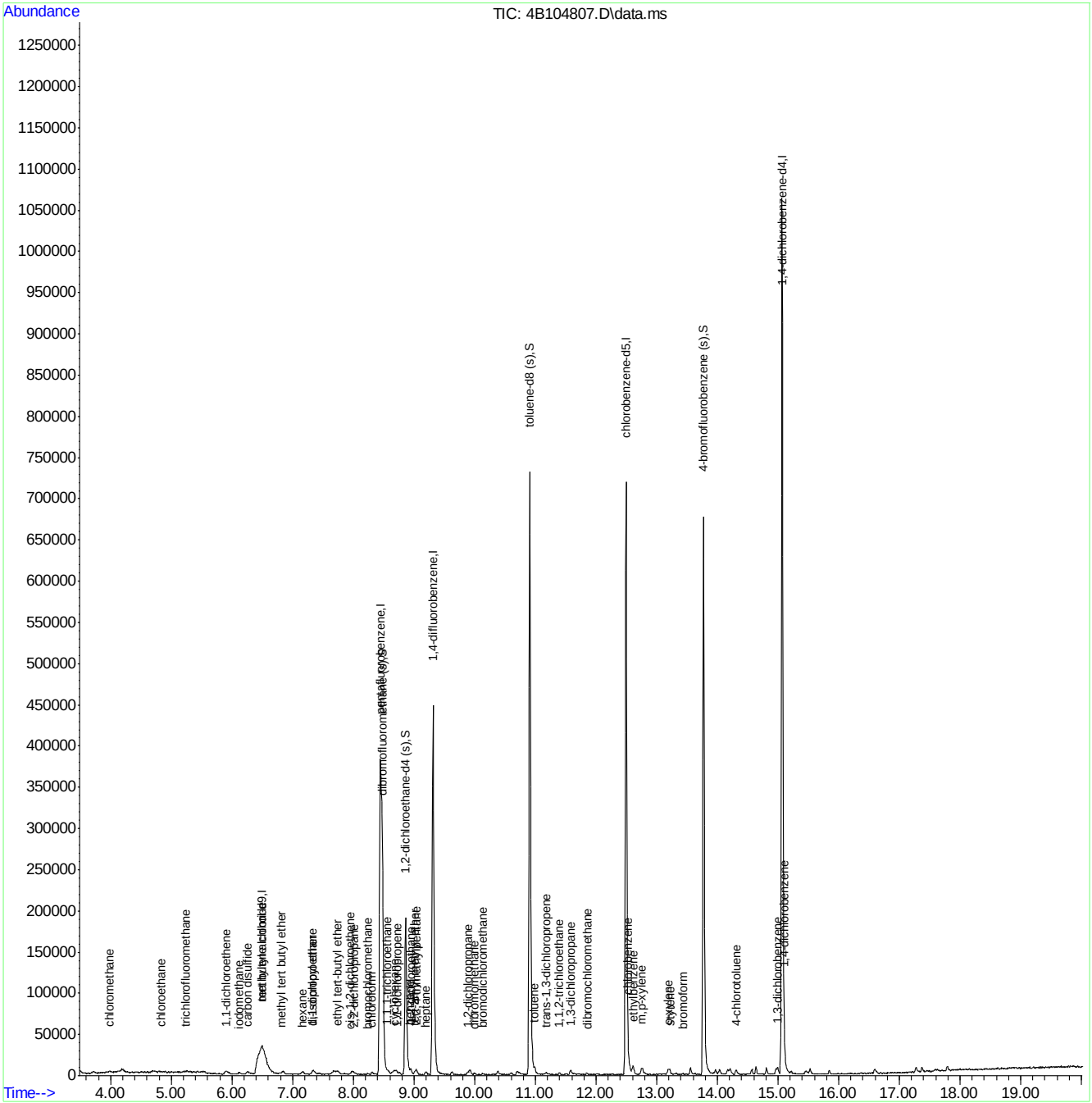
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) chlorobenzene	12.530	112	3265	0.39	ug/L	95
88) ethylbenzene	12.614	91	5805	0.38	ug/L	97
89) m,p-xylene	12.755	106	4615	0.79	ug/L	82
90) o-xylene	13.189	91	5257	0.39	ug/L	91
91) styrene	13.221	104	3014	0.34	ug/L	93
94) bromoform	13.435	173	1030	0.38	ug/L	67
104) 4-chlorotoluene	14.314	91	4835	0.39	ug/L	91
110) 1,3-dichlorobenzene	14.999	146	3674	0.38	ug/L	90
112) 1,4-dichlorobenzene	15.098	146	4055	0.41	ug/L	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104807.D
Acq On : 16 Jun 2021 6:25 pm
Operator : EddieH
Sample : ic4538-0.5
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 17 15:03:37 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 06/21/21 11:19

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104808.D
Acq On : 16 Jun 2021 6:53 pm
Operator : EddieH
Sample : ic4538-1
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 17 15:04:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.479	65	183254	500.00	ug/L		-0.02
5) pentafluorobenzene	8.446	168	341760	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	423470	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	437757	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	315536	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	150872	49.35	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.70%				
53) 1,2-dichloroethane-d4 (s)	8.864	65	150887	49.29	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.58%				
74) toluene-d8 (s)	10.909	98	517727	48.23	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.46%				
97) 4-bromofluorobenzene (s)	13.770	95	229117	48.74	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.48%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.707	51	5082	0.82	ug/L		89
8) chloromethane	3.974	50	6621	0.92	ug/L		98
9) vinyl chloride	4.178	62	5802	0.84	ug/L		72
11) bromomethane	4.716	94	4656	1.00	ug/L		90
12) chloroethane	4.847	64	2996	1.06	ug/L		91
13) trichlorofluoromethane	5.218	101	5957	0.77	ug/L	#	59
14) ethyl ether	5.532	74	1137	0.92	ug/L	#	51
17) 1,1-dichloroethene	5.888	61	4000	0.81	ug/L		92
20) iodomethane	6.118	142	6361	0.87	ug/L		94
21) carbon disulfide	6.254	76	11168	0.91	ug/L		98
22) methylene chloride	6.489	84	2969	0.88	ug/L		94
24) methyl tert butyl ether	6.814	73	8356	0.97	ug/L		90
25) trans-1,2-dichloroethene	6.840	61	3730	0.84	ug/L		92
26) hexane	7.164	56	2007	0.82	ug/L	#	79
27) di-isopropyl ether	7.332	45	10539	0.88	ug/L		93
29) 1,1-dichloroethane	7.337	63	4650	0.86	ug/L		90
33) ethyl tert-butyl ether	7.734	59	9286	0.86	ug/L		94
35) 2,2-dichloropropane	8.011	77	5340	0.85	ug/L		97
36) cis-1,2-dichloroethene	7.975	96	2887	0.93	ug/L	#	73
40) bromochloromethane	8.221	128	1493	0.87	ug/L	#	72
42) chloroform	8.304	83	5303	0.98	ug/L		89
45) 1,1,1-trichloroethane	8.566	97	5406	0.77	ug/L		93
46) cyclohexane	8.691	84	4680	0.75	ug/L		85
48) 1,1-dichloropropene	8.723	75	3332	0.87	ug/L		93
49) carbon tetrachloride	8.754	117	4769	0.77	ug/L		97
55) 2,2,4-trimethylpentane	9.037	57	8948	0.75	ug/L		93
56) benzene	8.948	78	9465	0.86	ug/L		94
57) tert-amyl methyl ether	9.021	73	8636	0.84	ug/L		92
58) heptane	9.183	57	1776	0.83	ug/L	#	73
59) 1,2-dichloroethane	8.953	62	3632	0.98	ug/L		92
60) ethyl acrylate	9.638	55	2402	0.86	ug/L		81
61) trichloroethene	9.622	95	2259	0.78	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104808.D
Acq On : 16 Jun 2021 6:53 pm
Operator : EddieH
Sample : ic4538-1
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 17 15:04:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

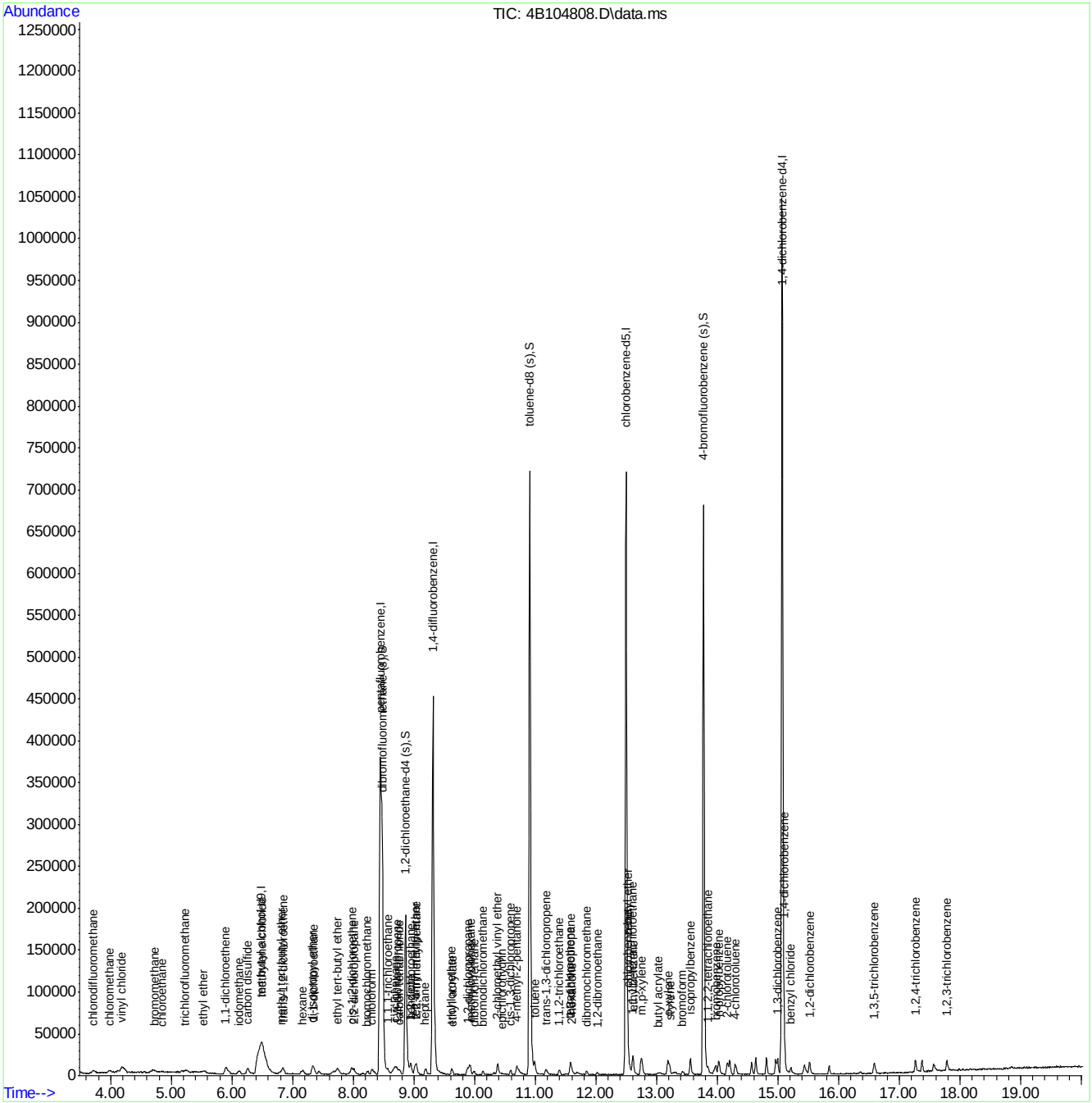
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
62)	2-chloroethyl vinyl ether	10.376	63	6139	3.91	ug/L		92
64)	methylcyclohexane	9.926	83	5223	0.76	ug/L		93
65)	1,2-dichloropropane	9.884	63	2871	0.97	ug/L		93
66)	dibromomethane	9.994	93	1564	0.91	ug/L		88
67)	bromodichloromethane	10.130	83	3342	0.84	ug/L		88
69)	epichlorohydrin	10.454	57	1022	4.18	ug/L		53
70)	cis-1,3-dichloropropene	10.590	75	3611	0.81	ug/L		95
71)	4-methyl-2-pentanone	10.695	58	3415	3.29	ug/L		91
75)	toluene	10.993	92	5945	0.83	ug/L		91
77)	trans-1,3-dichloropropene	11.171	75	3237	0.80	ug/L	#	67
78)	1,1,2-trichloroethane	11.395	83	1800	0.85	ug/L		88
79)	tetrachloroethene	11.573	164	2369	0.77	ug/L		87
80)	2-hexanone	11.599	58	2765m	3.15	ug/L		
81)	1,3-dichloropropane	11.578	76	3612	0.93	ug/L		71
83)	dibromochloromethane	11.840	129	2863	0.83	ug/L		90
84)	1,2-dibromoethane	12.018	107	2317	0.85	ug/L		84
85)	n-butyl ether	12.520	57	11933	0.85	ug/L		90
86)	chlorobenzene	12.530	112	7327	0.87	ug/L		96
87)	1,1,1,2-tetrachloroethane	12.598	131	3408	0.80	ug/L		96
88)	ethylbenzene	12.614	91	13351	0.87	ug/L		98
89)	m,p-xylene	12.755	106	9736	1.66	ug/L		83
90)	o-xylene	13.184	91	11848	0.87	ug/L		90
91)	styrene	13.216	104	6868	0.76	ug/L		88
92)	butyl acrylate	13.022	55	4658	0.80	ug/L		83
93)	isopropylbenzene	13.555	105	14896	0.80	ug/L		93
94)	bromoform	13.419	173	2322	0.85	ug/L		96
98)	1,1,2,2-tetrachloroethane	13.843	83	3516	0.82	ug/L		97
101)	bromobenzene	13.979	156	4171	0.84	ug/L		86
102)	n-propylbenzene	14.021	91	17142	0.79	ug/L		91
103)	2-chlorotoluene	14.162	126	3727	0.80	ug/L		93
104)	4-chlorotoluene	14.293	91	10489	0.86	ug/L		86
110)	1,3-dichlorobenzene	14.994	146	8479	0.89	ug/L		96
112)	1,4-dichlorobenzene	15.093	146	8823	0.91	ug/L		97
113)	1,2-dichlorobenzene	15.517	146	8679	0.85	ug/L		93
114)	benzyl chloride	15.203	91	7523	0.82	ug/L		84
118)	1,3,5-trichlorobenzene	16.584	180	7373	0.74	ug/L		99
119)	1,2,4-trichlorobenzene	17.264	180	6533	0.66	ug/L		98
122)	1,2,3-trichlorobenzene	17.787	180	6317	0.72	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104808.D
Acq On : 16 Jun 2021 6:53 pm
Operator : EddieH
Sample : ic4538-1
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 17 15:04:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration



Manual Integration Approval Summary

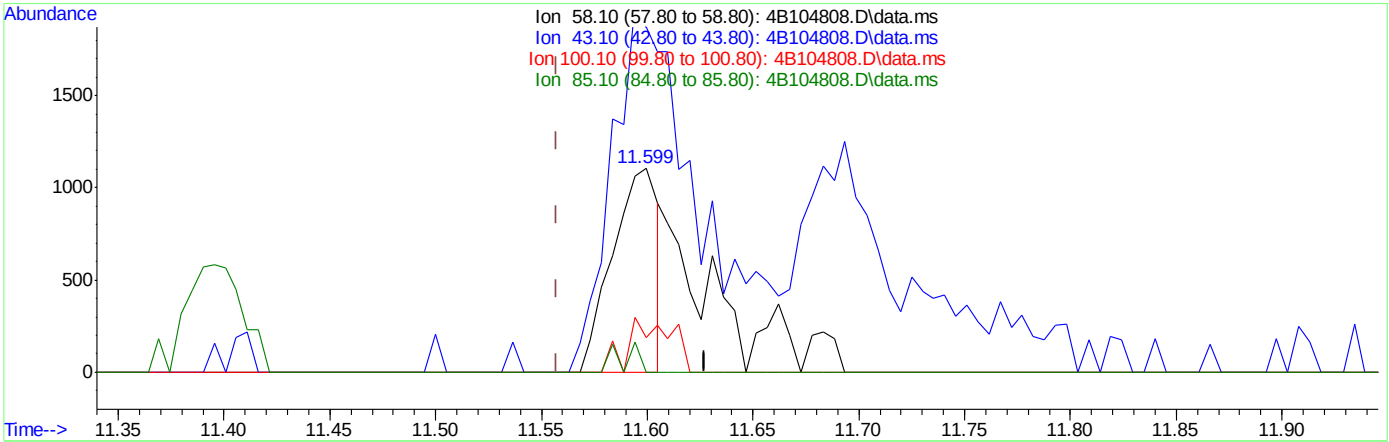
Sample Number:	V4B4538-IC4538	**Method:**	SW846 8260D
Lab FileID:	4B104808.D	**Analyst approved:**	06/17/21 16:05 Bridget Kelly
Injection Time:	06/16/21 18:53	**Supervisor approved:**	06/21/21 11:19 Kanya Veerawat

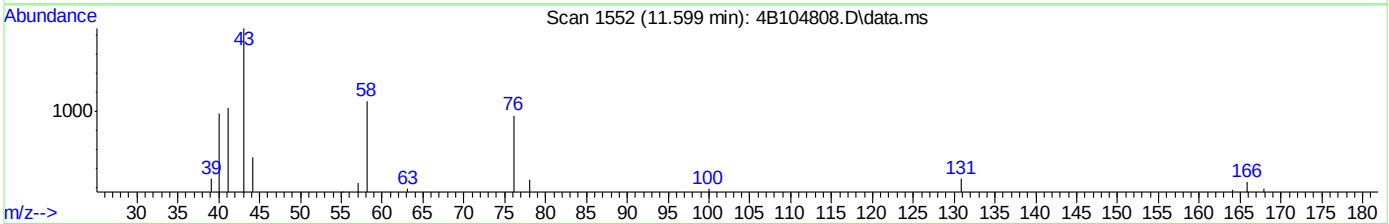
Parameter	CAS	Sig#	R.T. (min.)	Reason
2-Hexanone	591-78-6		11.60	Split peak

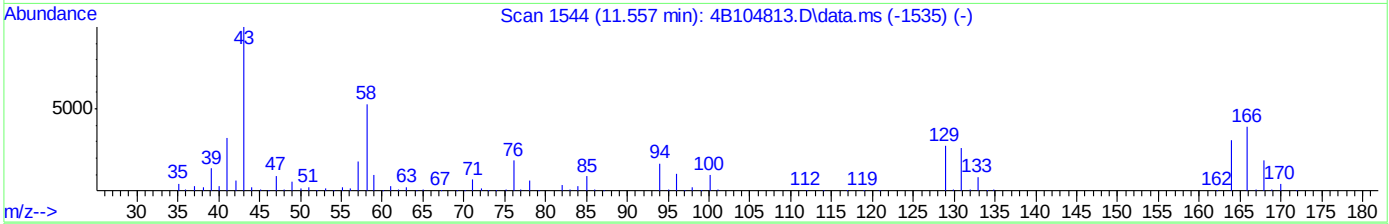
Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104808.D
Acq On : 16 Jun 2021 6:53 pm
Operator : EddieH
Sample : ic4538-1
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 17 09:06:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration







TIC: 4B104808.D\data.ms

(80) 2-hexanone

11.599min (+0.042) 1.87ug/L

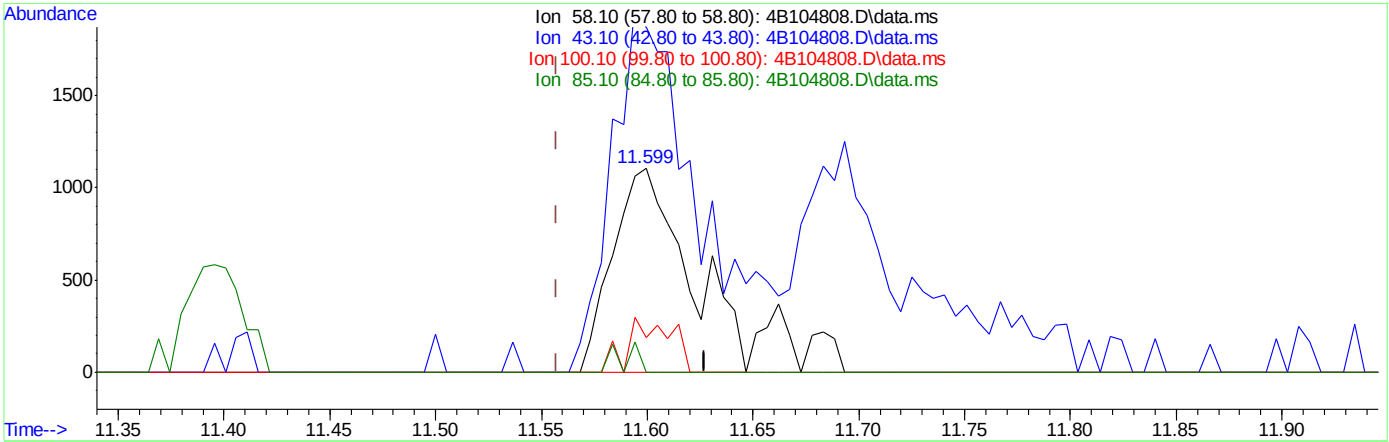
response 1638

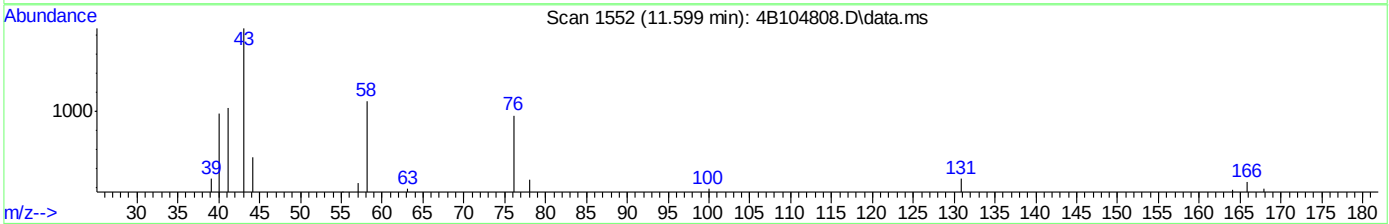
Ion	Exp%	Act%
58.10	100	100
43.10	188.70	168.83
100.10	17.70	17.07
85.10	16.40	0.00

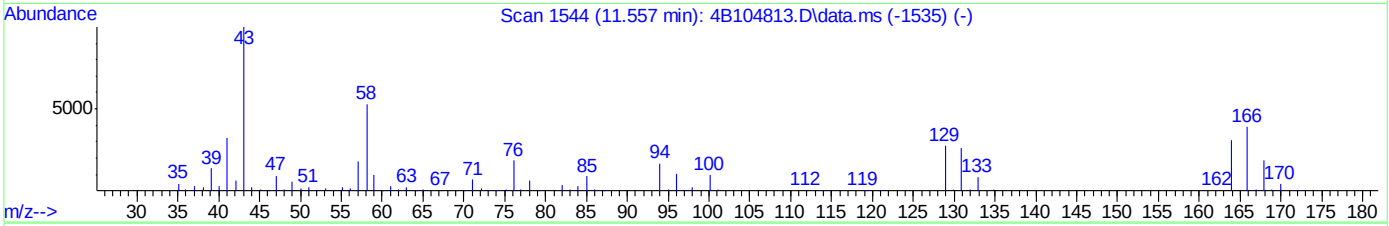
Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104808.D
Acq On : 16 Jun 2021 6:53 pm
Operator : EddieH
Sample : ic4538-1
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 17 09:06:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration







TIC: 4B104808.D\data.ms

(80) 2-hexanone

11.599min (+0.042) 3.15ug/L m

response 2765

Ion	Exp%	Act%
58.10	100	100
43.10	188.70	168.83
100.10	17.70	17.07
85.10	16.40	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 06/22/21 18:03

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104809.D
Acq On : 16 Jun 2021 7:21 pm
Operator : EddieH
Sample : ic4538-2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 22 17:13:01 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:13 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.469	65	162056	500.00	ug/L		-0.02
5) pentafluorobenzene	8.446	168	333068	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.309	114	406320	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	413944	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	295583	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.472	113	145005	49.08	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.16%				
53) 1,2-dichloroethane-d4 (s)	8.859	65	145737	50.25	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.50%				
74) toluene-d8 (s)	10.909	98	495481	49.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.28%				
97) 4-bromofluorobenzene (s)	13.770	95	217427	50.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.552	59	3620m	11.13	ug/L		
6) chlorodifluoromethane	3.712	51	11326	2.18	ug/L		96
7) dichlorodifluoromethane	3.686	85	13428	2.01	ug/L		96
8) chloromethane	3.984	50	14039	2.25	ug/L		97
9) vinyl chloride	4.172	62	13000	2.25	ug/L		96
11) bromomethane	4.696	94	9260	2.23	ug/L		79
12) chloroethane	4.842	64	5860	2.29	ug/L		84
13) trichlorofluoromethane	5.245	101	14370	2.29	ug/L		95
14) ethyl ether	5.532	74	2193	2.05	ug/L		90
17) 1,1-dichloroethene	5.893	61	9846	2.34	ug/L		96
18) acetone	5.893	58	1727	9.09	ug/L	#	69
20) iodomethane	6.113	142	13589	2.17	ug/L		98
21) carbon disulfide	6.249	76	23636	2.20	ug/L		99
22) methylene chloride	6.489	84	6370	2.17	ug/L		88
23) methyl acetate	6.285	43	3674	2.18	ug/L		75
24) methyl tert butyl ether	6.829	73	17744	2.30	ug/L		91
25) trans-1,2-dichloroethene	6.845	61	8828	2.27	ug/L		89
26) hexane	7.164	56	4607	2.25	ug/L	#	72
27) di-isopropyl ether	7.337	45	22777	2.21	ug/L		96
28) 2-butanone	7.933	72	1054	5.84	ug/L	#	69
29) 1,1-dichloroethane	7.321	63	10439	2.25	ug/L		96
30) chloroprene	7.426	53	7839	2.21	ug/L		81
33) ethyl tert-butyl ether	7.745	59	20587	2.23	ug/L		93
35) 2,2-dichloropropane	8.001	77	12090	2.26	ug/L		86
36) cis-1,2-dichloroethene	7.964	96	6182	2.23	ug/L		85
37) propionitrile	7.949	54	6093	20.98	ug/L		90
39) methacrylonitrile	8.137	67	1425	1.89	ug/L	#	69
40) bromochloromethane	8.236	128	3110	2.14	ug/L		88
42) chloroform	8.304	83	10835	2.25	ug/L		94
43) tert-butyl formate	8.341	59	5113	1.97	ug/L		88
45) 1,1,1-trichloroethane	8.571	97	12745	2.22	ug/L		93
46) cyclohexane	8.686	84	11155	2.23	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104809.D
Acq On : 16 Jun 2021 7:21 pm
Operator : EddieH
Sample : ic4538-2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 22 17:13:01 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:13 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48)	1,1-dichloropropene	8.718	75	7476	2.30	ug/L		93
49)	carbon tetrachloride	8.759	117	11354	2.20	ug/L		93
54)	n-butyl alcohol	9.398	41	5762	106.38	ug/L		86
55)	2,2,4-trimethylpentane	9.037	57	19435	2.08	ug/L		98
56)	benzene	8.937	78	19888	2.17	ug/L		95
57)	tert-amyl methyl ether	9.016	73	18807	2.17	ug/L		97
58)	heptane	9.188	57	3959	2.25	ug/L		87
59)	1,2-dichloroethane	8.948	62	7151	2.16	ug/L		96
60)	ethyl acrylate	9.617	55	4357	1.88	ug/L		86
61)	trichloroethene	9.617	95	5568	2.30	ug/L		89
62)	2-chloroethyl vinyl ether	10.365	63	13704	10.62	ug/L		89
63)	methyl methacrylate	9.863	100	866	1.85	ug/L	#	79
64)	methylcyclohexane	9.921	83	12060	2.17	ug/L		92
65)	1,2-dichloropropane	9.884	63	5749	2.25	ug/L		95
66)	dibromomethane	9.983	93	3170	2.14	ug/L		89
67)	bromodichloromethane	10.135	83	7211	2.17	ug/L		98
68)	2-nitropropane	10.318	41	956	2.02	ug/L		90
69)	epichlorohydrin	10.454	57	2159	10.54	ug/L		91
70)	cis-1,3-dichloropropene	10.595	75	7857	2.13	ug/L		96
71)	4-methyl-2-pentanone	10.695	58	7512	8.60	ug/L	#	67
72)	isoamyl alcohol	10.721	70	2426	36.97	ug/L	#	16
75)	toluene	10.987	92	13433	2.25	ug/L		98
76)	ethyl methacrylate	11.186	69	4879	1.92	ug/L		82
77)	trans-1,3-dichloropropene	11.171	75	7141	2.18	ug/L		87
78)	1,1,2-trichloroethane	11.395	83	3635	2.11	ug/L		92
79)	tetrachloroethene	11.568	164	5133	2.05	ug/L		90
80)	2-hexanone	11.579	58	5666	8.22	ug/L		93
81)	1,3-dichloropropane	11.579	76	7076	2.17	ug/L		87
82)	butyl acetate	11.673	56	2413	1.73	ug/L	#	59
83)	dibromochloromethane	11.845	129	5599	2.00	ug/L		94
84)	1,2-dibromoethane	12.013	107	5027	2.20	ug/L		89
85)	n-butyl ether	12.520	57	24791	2.11	ug/L		99
86)	chlorobenzene	12.525	112	15217	2.16	ug/L		91
87)	1,1,1,2-tetrachloroethane	12.598	131	6957	1.99	ug/L		92
88)	ethylbenzene	12.604	91	26710	2.13	ug/L		96
89)	m,p-xylene	12.740	106	21257	4.39	ug/L		96
90)	o-xylene	13.174	91	23527	2.09	ug/L		91
91)	styrene	13.200	104	14600	2.05	ug/L		87
92)	butyl acrylate	13.006	55	9860	2.06	ug/L		91
93)	isopropylbenzene	13.556	105	32489	2.14	ug/L		98
94)	bromoform	13.430	173	4343	1.97	ug/L		97
98)	1,1,2,2-tetrachloroethane	13.848	83	7326	2.10	ug/L		97
100)	1,2,3-trichloropropane	13.937	110	1989	2.13	ug/L	#	72
101)	bromobenzene	13.969	156	9033	2.21	ug/L		90
102)	n-propylbenzene	14.021	91	37262	2.12	ug/L		96
103)	2-chlorotoluene	14.157	126	7665	2.04	ug/L		90
104)	4-chlorotoluene	14.288	91	22182	2.23	ug/L		97
105)	1,3,5-trimethylbenzene	14.199	105	26690	1.98	ug/L		98
106)	tert-butylbenzene	14.565	119	20975	1.93	ug/L		95
107)	1,2,4-trimethylbenzene	14.628	105	27645	1.98	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104809.D
Acq On : 16 Jun 2021 7:21 pm
Operator : EddieH
Sample : ic4538-2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 22 17:13:01 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:13 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

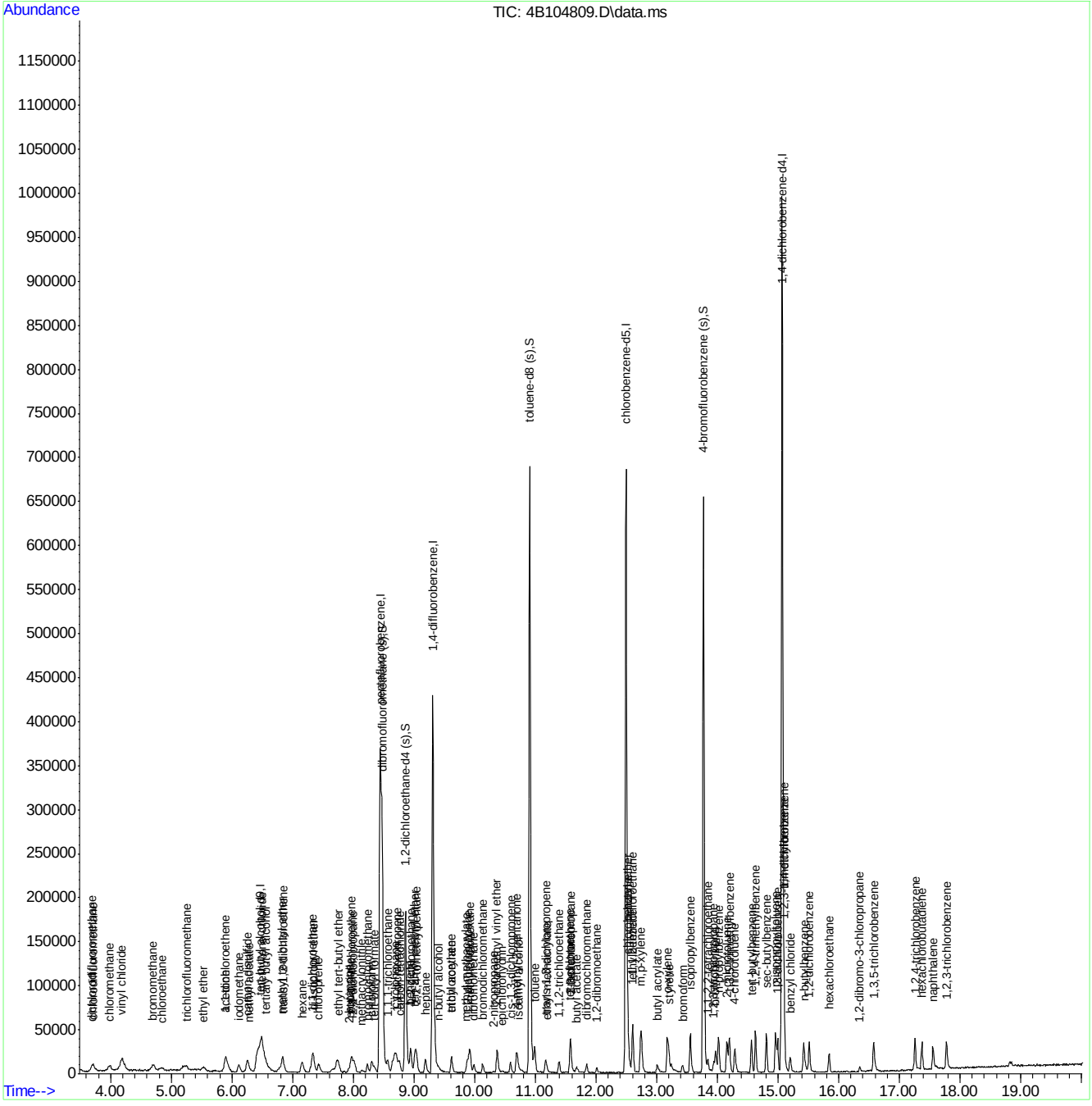
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	14.811	105	34265	1.95	ug/L	98
109) p-isopropyltoluene	14.957	119	31633	2.00	ug/L	99
110) 1,3-dichlorobenzene	14.994	146	17415	2.20	ug/L	94
111) 1,2,3-trimethylbenzene	15.098	105	29215	1.99	ug/L	92
112) 1,4-dichlorobenzene	15.093	146	18298	2.23	ug/L	97
113) 1,2-dichlorobenzene	15.512	146	17544	2.08	ug/L	98
114) benzyl chloride	15.203	91	15252	2.05	ug/L	97
115) n-butylbenzene	15.428	92	15911	2.07	ug/L	95
116) hexachloroethane	15.841	201	4062	2.58	ug/L	91
117) 1,2-dibromo-3-chloropr...	16.348	157	1991	1.86	ug/L	88
118) 1,3,5-trichlorobenzene	16.579	180	16384	2.04	ug/L	92
119) 1,2,4-trichlorobenzene	17.259	180	15304	1.99	ug/L	97
120) hexachlorobutadiene	17.374	225	7612	2.07	ug/L	88
121) naphthalene	17.557	128	29321	1.97	ug/L	98
122) 1,2,3-trichlorobenzene	17.782	180	12963	1.90	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104809.D
Acq On : 16 Jun 2021 7:21 pm
Operator : EddieH
Sample : ic4538-2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 22 17:13:01 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:13 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration



Manual Integration Approval Summary

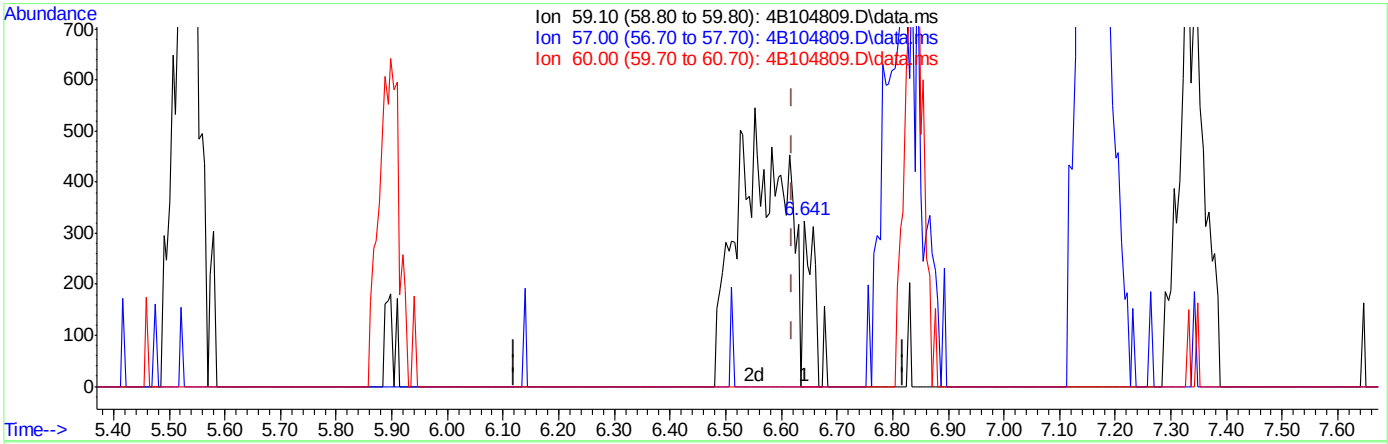
Sample Number:	V4B4538-IC4538	**Method:**	SW846 8260D
Lab FileID:	4B104809.D	**Analyst approved:**	06/22/21 17:17 Bridget Kelly
Injection Time:	06/16/21 19:21	**Supervisor approved:**	06/22/21 18:03 Kanya Veerawat

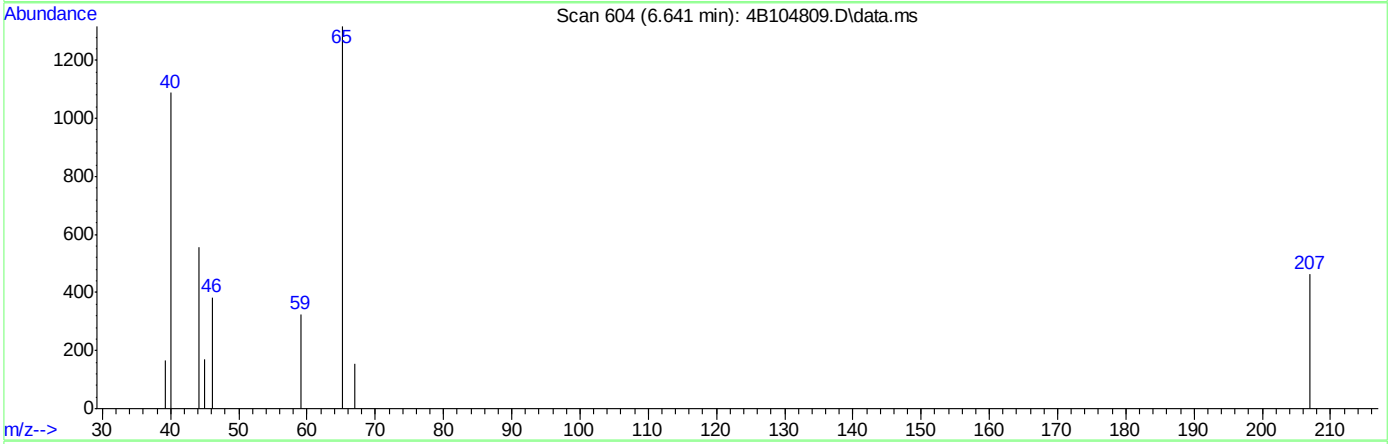
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tert Butyl Alcohol	75-65-0		6.55	Split peak

Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104809.D
Acq On : 16 Jun 2021 7:21 pm
Operator : EddieH
Sample : ic4538-2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 18 14:41:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:13 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration





TIC: 4B104809.D\data.ms

(3) tertiary butyl alcohol

6.641min (+0.021) 1.29ug/L

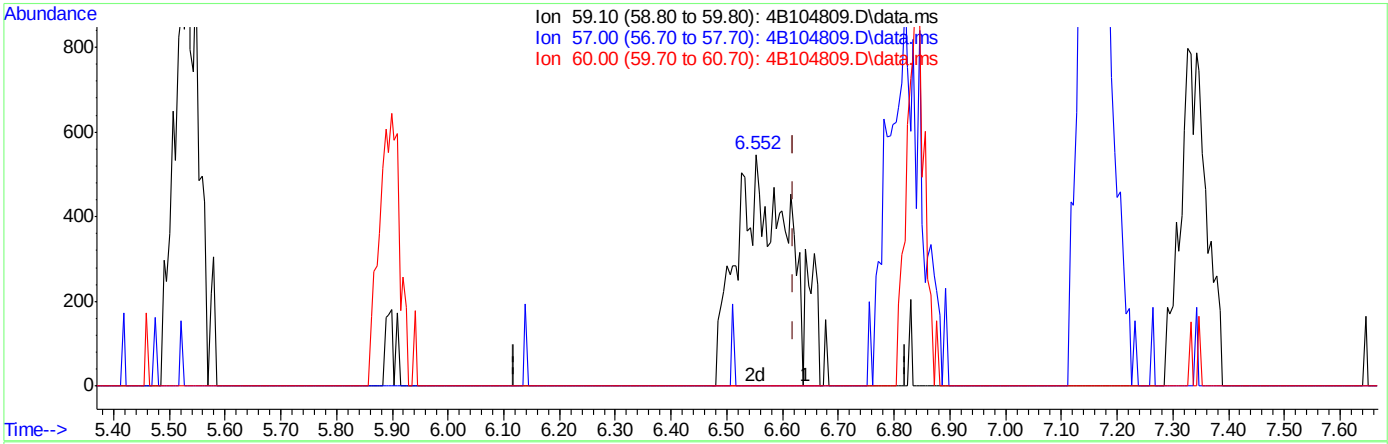
response 418

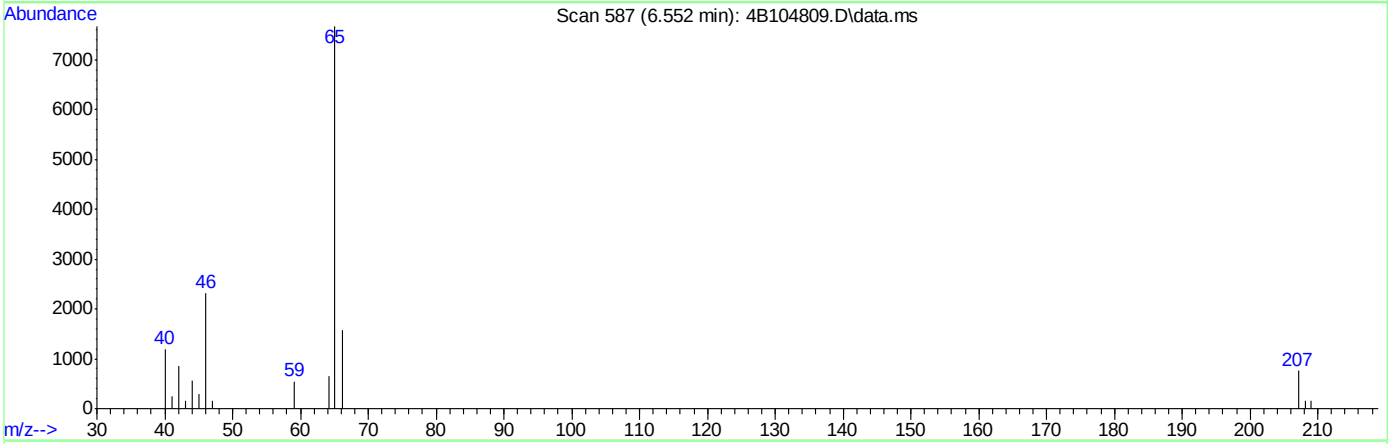
Ion	Exp%	Act%
59.10	100	100
57.00	10.60	0.00
60.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104809.D
Acq On : 16 Jun 2021 7:21 pm
Operator : EddieH
Sample : ic4538-2
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 22 17:13:01 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:13 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration





TIC: 4B104809.D\data.ms

(3) tertiary butyl alcohol

6.552min (-0.068) 11.13ug/L m

response 3620

Ion	Exp%	Act%
59.10	100	100
57.00	10.60	0.00
60.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104810.D
Acq On : 16 Jun 2021 7:49 pm
Operator : EddieH
Sample : ic4538-4
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 18 14:44:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.484	65	174548	500.00	ug/L		0.00
5) pentafluorobenzene	8.445	168	332776	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	409831	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	411175	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	298376	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	146221	49.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%				
53) 1,2-dichloroethane-d4 (s)	8.859	65	149819	51.21	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.42%				
74) toluene-d8 (s)	10.909	98	499228	49.84	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.68%				
97) 4-bromofluorobenzene (s)	13.770	95	217789	49.70	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.40%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.547	59	6435	18.37	ug/L		75
4) 1,4-dioxane	9.962	88	2723	84.64	ug/L		95
6) chlorodifluoromethane	3.707	51	18256	3.52	ug/L		91
7) dichlorodifluoromethane	3.691	85	23095	3.46	ug/L		98
8) chloromethane	3.984	50	22993	3.69	ug/L		98
9) vinyl chloride	4.188	62	20951	3.63	ug/L		98
10) 1,3-butadiene	4.209	54	15721	3.85	ug/L		99
11) bromomethane	4.701	94	15688	3.78	ug/L		87
12) chloroethane	4.826	64	9391	3.68	ug/L		92
13) trichlorofluoromethane	5.245	101	22408	3.58	ug/L		96
14) ethyl ether	5.527	74	3842	3.59	ug/L	#	78
15) acrolein	5.731	56	1273	3.09	ug/L		95
16) freon 113	5.935	151	12489	3.67	ug/L		87
17) 1,1-dichloroethene	5.893	61	16073	3.82	ug/L		97
18) acetone	5.883	58	3054	16.10	ug/L	#	68
19) acetonitrile	6.249	41	13526	40.80	ug/L		85
20) iodomethane	6.113	142	24084	3.85	ug/L		94
21) carbon disulfide	6.254	76	39556	3.68	ug/L		98
22) methylene chloride	6.489	84	11304	3.86	ug/L		96
23) methyl acetate	6.275	43	7037	4.17	ug/L		87
24) methyl tert butyl ether	6.808	73	30172	3.92	ug/L		94
25) trans-1,2-dichloroethene	6.840	61	14529	3.74	ug/L		95
26) hexane	7.154	56	7074	3.45	ug/L		91
27) di-isopropyl ether	7.337	45	38548	3.75	ug/L		96
28) 2-butanone	7.928	72	2512	13.93	ug/L	#	73
29) 1,1-dichloroethane	7.337	63	17516	3.78	ug/L		97
30) chloroprene	7.436	53	12664	3.58	ug/L		92
33) ethyl tert-butyl ether	7.739	59	35491	3.85	ug/L		94
34) ethyl acetate	7.933	45	1225	3.77	ug/L	#	21
35) 2,2-dichloropropane	8.006	77	19603	3.67	ug/L		91
36) cis-1,2-dichloroethene	7.964	96	10534	3.80	ug/L		96
37) propionitrile	7.954	54	10941	37.71	ug/L		86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104810.D
Acq On : 16 Jun 2021 7:49 pm
Operator : EddieH
Sample : ic4538-4
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 18 14:44:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) methyl acrylate	8.017	85	495	3.37	ug/L	#	27
39) methacrylonitrile	8.142	67	2742	3.65	ug/L	#	73
40) bromochloromethane	8.231	128	5797	3.99	ug/L		88
42) chloroform	8.304	83	17868	3.71	ug/L		97
43) tert-butyl formate	8.351	59	9459	3.65	ug/L		92
45) 1,1,1-trichloroethane	8.571	97	20670	3.60	ug/L		98
46) cyclohexane	8.686	84	18195	3.63	ug/L		91
48) 1,1-dichloropropene	8.717	75	12048	3.72	ug/L		93
49) carbon tetrachloride	8.759	117	18740	3.63	ug/L		90
50) tert-amyl alcohol	8.817	73	3416	26.20	ug/L	#	67
51) isopropyl acetate	8.848	87	1426	3.26	ug/L	#	26
54) n-butyl alcohol	9.376	41	11383	208.35	ug/L	#	76
55) 2,2,4-trimethylpentane	9.037	57	32525	3.45	ug/L		94
56) benzene	8.942	78	35014	3.79	ug/L		92
57) tert-amyl methyl ether	9.021	73	32220	3.69	ug/L		97
58) heptane	9.193	57	6557	3.70	ug/L	#	84
59) 1,2-dichloroethane	8.942	62	12572	3.76	ug/L		93
60) ethyl acrylate	9.612	55	8926	3.82	ug/L		95
61) trichloroethene	9.617	95	8878	3.64	ug/L		92
62) 2-chloroethyl vinyl ether	10.365	63	23767	18.27	ug/L		98
63) methyl methacrylate	9.858	100	1654	3.50	ug/L	#	73
64) methylcyclohexane	9.926	83	19675	3.51	ug/L		87
65) 1,2-dichloropropane	9.879	63	9433	3.66	ug/L		98
66) dibromomethane	9.988	93	5663	3.80	ug/L		91
67) bromodichloromethane	10.135	83	12154	3.63	ug/L		88
68) 2-nitropropane	10.313	41	1503	3.15	ug/L		58
69) epichlorohydrin	10.454	57	4346	21.03	ug/L		88
70) cis-1,3-dichloropropene	10.585	75	13586	3.66	ug/L		94
71) 4-methyl-2-pentanone	10.689	58	13166	14.94	ug/L	#	86
72) isoamyl alcohol	10.695	70	5423	81.93	ug/L		85
75) toluene	10.987	92	22395	3.78	ug/L		91
76) ethyl methacrylate	11.176	69	8746	3.47	ug/L		99
77) trans-1,3-dichloropropene	11.165	75	11755	3.62	ug/L		96
78) 1,1,2-trichloroethane	11.390	83	6740	3.93	ug/L		88
79) tetrachloroethene	11.568	164	8805	3.54	ug/L		95
80) 2-hexanone	11.573	58	11256	16.43	ug/L		95
81) 1,3-dichloropropane	11.578	76	12309	3.80	ug/L		88
82) butyl acetate	11.683	56	5560	4.01	ug/L	#	71
83) dibromochloromethane	11.845	129	9903	3.55	ug/L		99
84) 1,2-dibromoethane	12.013	107	8257	3.63	ug/L		95
85) n-butyl ether	12.509	57	44248	3.79	ug/L		93
86) chlorobenzene	12.530	112	26563	3.80	ug/L		92
87) 1,1,1,2-tetrachloroethane	12.593	131	12266	3.53	ug/L		94
88) ethylbenzene	12.604	91	46968	3.76	ug/L		99
89) m,p-xylene	12.740	106	35136	7.30	ug/L		97
90) o-xylene	13.174	91	41808	3.74	ug/L		99
91) styrene	13.189	104	26800	3.79	ug/L		99
92) butyl acrylate	13.006	55	18066	3.80	ug/L		96
93) isopropylbenzene	13.555	105	53367	3.53	ug/L		96
94) bromoform	13.425	173	8089	3.70	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104810.D
Acq On : 16 Jun 2021 7:49 pm
Operator : EddieH
Sample : ic4538-4
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 18 14:44:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

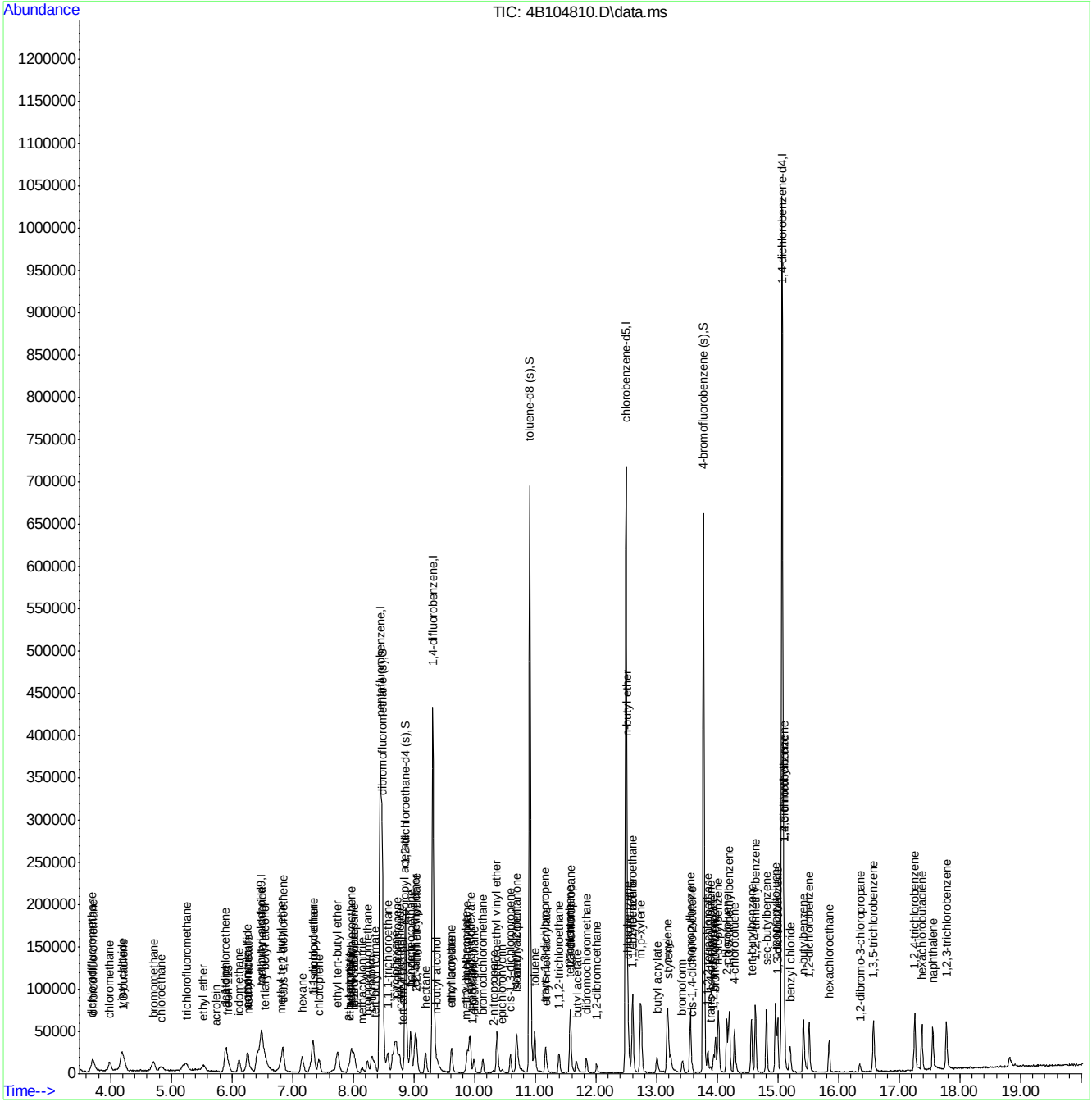
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95) cis-1,4-dichloro-2-butene	13.582	88	1855	4.39	ug/L		89
98) 1,1,2,2-tetrachloroethane	13.843	83	12677	3.60	ug/L		96
99) trans-1,4-dichloro-2-b...	13.890	53	1640	4.44	ug/L	#	65
100) 1,2,3-trichloropropane	13.937	110	3385	3.59	ug/L		88
101) bromobenzene	13.969	156	14341	3.48	ug/L		99
102) n-propylbenzene	14.016	91	62513	3.52	ug/L		99
103) 2-chlorotoluene	14.157	126	13682	3.60	ug/L		89
104) 4-chlorotoluene	14.282	91	37230	3.71	ug/L		98
105) 1,3,5-trimethylbenzene	14.194	105	45232	3.33	ug/L		97
106) tert-butylbenzene	14.565	119	33582	3.07	ug/L		99
107) 1,2,4-trimethylbenzene	14.628	105	48934	3.47	ug/L		95
108) sec-butylbenzene	14.811	105	57251	3.22	ug/L		96
109) p-isopropyltoluene	14.957	119	52683	3.29	ug/L		98
110) 1,3-dichlorobenzene	14.994	146	30235	3.78	ug/L		94
111) 1,2,3-trimethylbenzene	15.093	105	50672	3.42	ug/L		96
112) 1,4-dichlorobenzene	15.093	146	30761	3.71	ug/L		98
113) 1,2-dichlorobenzene	15.512	146	30493	3.57	ug/L		97
114) benzyl chloride	15.198	91	27141	3.61	ug/L		93
115) n-butylbenzene	15.417	92	26914	3.46	ug/L		96
116) hexachloroethane	15.846	201	6880	3.55	ug/L		86
117) 1,2-dibromo-3-chloropr...	16.354	157	3539	3.28	ug/L		91
118) 1,3,5-trichlorobenzene	16.568	180	27804	3.43	ug/L		98
119) 1,2,4-trichlorobenzene	17.253	180	26397	3.40	ug/L		97
120) hexachlorobutadiene	17.374	225	12327	3.32	ug/L		95
121) naphthalene	17.551	128	51508	3.43	ug/L		98
122) 1,2,3-trichlorobenzene	17.776	180	23070	3.35	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104810.D
Acq On : 16 Jun 2021 7:49 pm
Operator : EddieH
Sample : ic4538-4
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 18 14:44:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104811.D
Acq On : 16 Jun 2021 8:17 pm
Operator : EddieH
Sample : ic4538-8
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 18 14:44:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.479	65	160150	500.00	ug/L		0.00
5) pentafluorobenzene	8.445	168	329541	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	409718	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	402270	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	289741	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	144758	49.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.04%				
53) 1,2-dichloroethane-d4 (s)	8.859	65	149081	50.97	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.94%				
74) toluene-d8 (s)	10.909	98	498944	50.92	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.84%				
97) 4-bromofluorobenzene (s)	13.770	95	215251	50.58	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.16%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.583	59	11463	35.67	ug/L		72
4) 1,4-dioxane	9.946	88	5493	186.10	ug/L		96
6) chlorodifluoromethane	3.712	51	35133	6.84	ug/L		95
7) dichlorodifluoromethane	3.702	85	44218	6.69	ug/L		91
8) chloromethane	3.984	50	42679	6.91	ug/L		95
9) vinyl chloride	4.183	62	38477	6.74	ug/L		96
10) 1,3-butadiene	4.204	54	30023	7.42	ug/L		98
11) bromomethane	4.706	94	29001	7.06	ug/L		95
12) chloroethane	4.826	64	17532	6.94	ug/L		94
13) trichlorofluoromethane	5.239	101	42225	6.81	ug/L		98
14) ethyl ether	5.532	74	7703	7.27	ug/L		87
15) acrolein	5.720	56	3015	7.38	ug/L		94
16) freon 113	5.919	151	23943	7.11	ug/L		98
17) 1,1-dichloroethene	5.893	61	31762	7.63	ug/L		87
18) acetone	5.898	58	5520	29.38	ug/L	#	61
19) acetonitrile	6.243	41	25114	76.50	ug/L		86
20) iodomethane	6.118	142	45634	7.36	ug/L		97
21) carbon disulfide	6.259	76	77582	7.29	ug/L		98
22) methylene chloride	6.484	84	21678	7.48	ug/L		96
23) methyl acetate	6.280	43	12160	7.28	ug/L		95
24) methyl tert butyl ether	6.824	73	54862	7.20	ug/L		97
25) trans-1,2-dichloroethene	6.840	61	28452	7.40	ug/L		92
26) hexane	7.159	56	14042	6.92	ug/L		97
27) di-isopropyl ether	7.337	45	75033	7.37	ug/L		96
28) 2-butanone	7.901	72	4879	27.33	ug/L	#	64
29) 1,1-dichloroethane	7.331	63	34227	7.45	ug/L		97
30) chloroprene	7.431	53	24939	7.12	ug/L		92
31) acrylonitrile	6.740	53	4577	6.25	ug/L		77
32) vinyl acetate	7.300	86	2284	6.64	ug/L	#	88
33) ethyl tert-butyl ether	7.739	59	67166	7.36	ug/L		98
34) ethyl acetate	7.928	45	2273	7.07	ug/L	#	71
35) 2,2-dichloropropane	8.006	77	38031	7.19	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104811.D
Acq On : 16 Jun 2021 8:17 pm
Operator : EddieH
Sample : ic4538-8
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 18 14:44:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	7.969	96	20036	7.29	ug/L		91
37) propionitrile	7.943	54	20926	72.83	ug/L		98
38) methyl acrylate	8.017	85	1852	7.94	ug/L	#	50
39) methacrylonitrile	8.137	67	5380	7.22	ug/L		94
40) bromochloromethane	8.231	128	10645	7.40	ug/L		90
41) tetrahydrofuran	8.273	72	1861	7.24	ug/L	#	59
42) chloroform	8.304	83	34380	7.20	ug/L		96
43) tert-butyl formate	8.341	59	18056	7.04	ug/L		86
45) 1,1,1-trichloroethane	8.566	97	41441	7.28	ug/L		96
46) cyclohexane	8.691	84	32381	6.53	ug/L		90
48) 1,1-dichloropropene	8.717	75	23480	7.32	ug/L		97
49) carbon tetrachloride	8.759	117	35544	6.96	ug/L		93
50) tert-amyl alcohol	8.827	73	4935	38.22	ug/L	#	84
51) isopropyl acetate	8.838	87	2762	6.38	ug/L	#	88
54) n-butyl alcohol	9.361	41	20458	374.56	ug/L		80
55) 2,2,4-trimethylpentane	9.036	57	63209	6.71	ug/L		97
56) benzene	8.942	78	67859	7.34	ug/L		95
57) tert-amyl methyl ether	9.015	73	63429	7.26	ug/L		96
58) heptane	9.188	57	12808	7.22	ug/L		93
59) 1,2-dichloroethane	8.947	62	23098	6.91	ug/L		96
60) ethyl acrylate	9.601	55	16214	6.94	ug/L		96
61) trichloroethene	9.622	95	17257	7.08	ug/L		98
62) 2-chloroethyl vinyl ether	10.365	63	46979	36.12	ug/L		95
63) methyl methacrylate	9.852	100	3153	6.67	ug/L	#	74
64) methylcyclohexane	9.920	83	39675	7.09	ug/L		100
65) 1,2-dichloropropane	9.878	63	18606	7.22	ug/L		90
66) dibromomethane	9.988	93	11102	7.44	ug/L		96
67) bromodichloromethane	10.135	83	24243	7.23	ug/L		96
68) 2-nitropropane	10.307	41	2945	6.17	ug/L		87
69) epichlorohydrin	10.449	57	7359	35.61	ug/L		97
70) cis-1,3-dichloropropene	10.585	75	26155	7.04	ug/L		97
71) 4-methyl-2-pentanone	10.684	58	25437	28.87	ug/L		92
72) isoamyl alcohol	10.694	70	9658	145.96	ug/L	#	88
75) toluene	10.987	92	42408	7.31	ug/L		98
76) ethyl methacrylate	11.165	69	17683	7.17	ug/L		95
77) trans-1,3-dichloropropene	11.165	75	22904	7.21	ug/L		94
78) 1,1,2-trichloroethane	11.390	83	11819	7.04	ug/L		86
79) tetrachloroethene	11.568	164	17904	7.35	ug/L		94
80) 2-hexanone	11.568	58	22195	33.12	ug/L	#	85
81) 1,3-dichloropropane	11.578	76	23300	7.35	ug/L		89
82) butyl acetate	11.667	56	10672	7.86	ug/L		88
83) dibromochloromethane	11.840	129	19965	7.33	ug/L		95
84) 1,2-dibromoethane	12.007	107	15783	7.09	ug/L		99
85) n-butyl ether	12.504	57	83557	7.31	ug/L		95
86) chlorobenzene	12.530	112	50079	7.32	ug/L		94
87) 1,1,1,2-tetrachloroethane	12.598	131	23953	7.05	ug/L		97
88) ethylbenzene	12.603	91	90109	7.38	ug/L		100
89) m,p-xylene	12.739	106	69860	14.84	ug/L		91
90) o-xylene	13.168	91	79555	7.27	ug/L		97
91) styrene	13.184	104	51687	7.46	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104811.D
Acq On : 16 Jun 2021 8:17 pm
Operator : EddieH
Sample : ic4538-8
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 18 14:44:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration

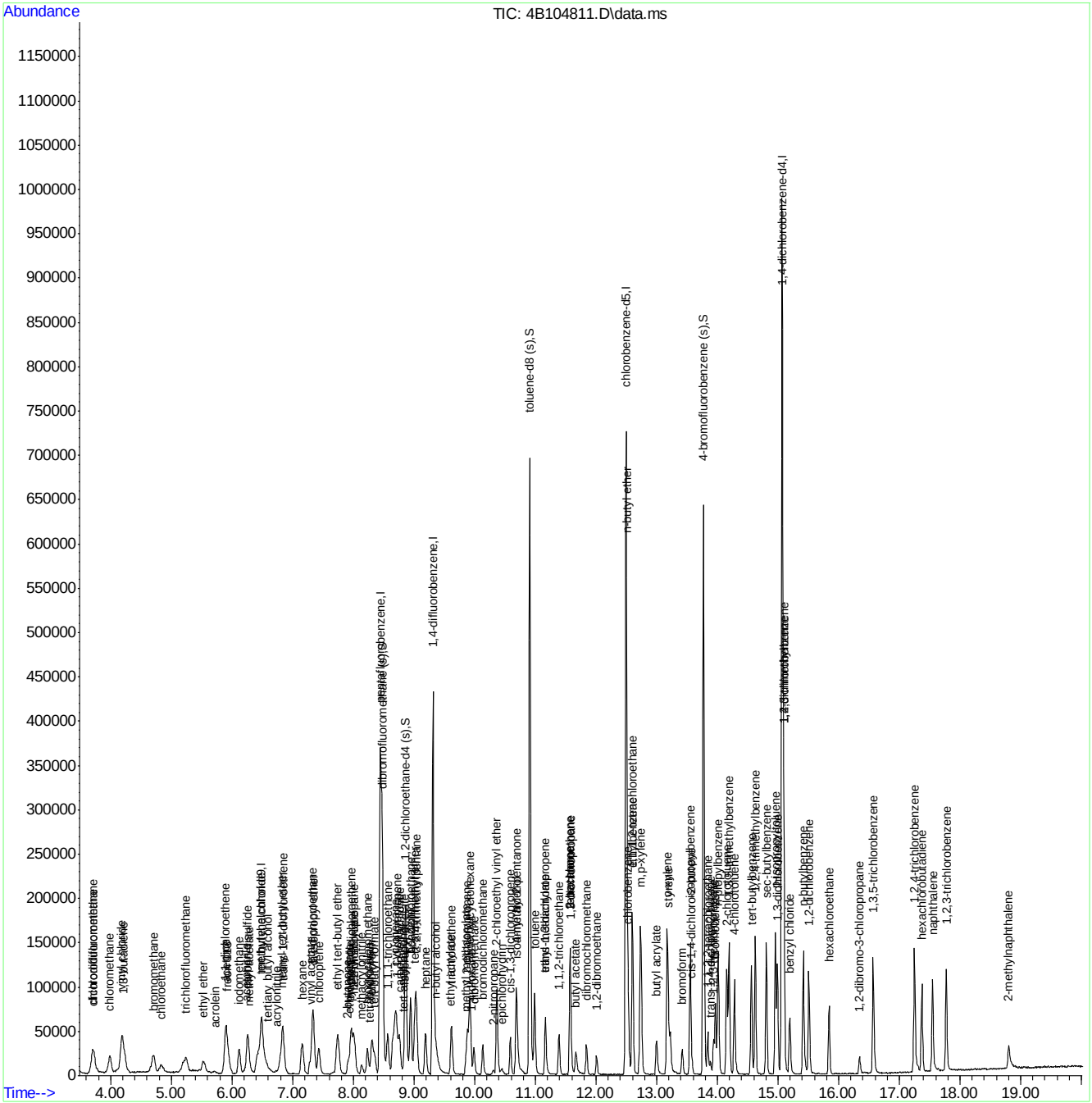
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	butyl acrylate	12.996	55	34033	7.32	ug/L		99
93)	isopropylbenzene	13.555	105	103759	7.02	ug/L		99
94)	bromoform	13.419	173	15027	7.02	ug/L		96
95)	cis-1,4-dichloro-2-butene	13.571	88	3327	6.61	ug/L		94
98)	1,1,2,2-tetrachloroethane	13.843	83	23185	6.78	ug/L		91
99)	trans-1,4-dichloro-2-b...	13.890	53	3118	6.89	ug/L	#	77
100)	1,2,3-trichloropropane	13.937	110	6275	6.86	ug/L	#	81
101)	bromobenzene	13.969	156	27098	6.77	ug/L		99
102)	n-propylbenzene	14.016	91	120873	7.01	ug/L		100
103)	2-chlorotoluene	14.157	126	25545	6.92	ug/L		99
104)	4-chlorotoluene	14.282	91	70174	7.20	ug/L		97
105)	1,3,5-trimethylbenzene	14.193	105	87355	6.62	ug/L		98
106)	tert-butylbenzene	14.565	119	65751	6.19	ug/L		96
107)	1,2,4-trimethylbenzene	14.622	105	93301	6.82	ug/L		94
108)	sec-butylbenzene	14.805	105	112788	6.54	ug/L		98
109)	p-isopropyltoluene	14.957	119	102981	6.63	ug/L		99
110)	1,3-dichlorobenzene	14.994	146	56542	7.28	ug/L		99
111)	1,2,3-trimethylbenzene	15.093	105	97297	6.75	ug/L		97
112)	1,4-dichlorobenzene	15.093	146	58338	7.25	ug/L		98
113)	1,2-dichlorobenzene	15.506	146	59380	7.17	ug/L		95
114)	benzyl chloride	15.192	91	51308	7.02	ug/L		98
115)	n-butylbenzene	15.417	92	51817	6.86	ug/L		98
116)	hexachloroethane	15.841	201	14682	6.41	ug/L		92
117)	1,2-dibromo-3-chloropr...	16.348	157	7068	6.75	ug/L		94
118)	1,3,5-trichlorobenzene	16.568	180	54771	6.97	ug/L		98
119)	1,2,4-trichlorobenzene	17.248	180	53358	7.08	ug/L		95
120)	hexachlorobutadiene	17.373	225	23269	6.46	ug/L		92
121)	naphthalene	17.546	128	97232	6.67	ug/L		98
122)	1,2,3-trichlorobenzene	17.776	180	45290	6.77	ug/L		98
123)	2-methylnaphthalene	18.801	142	25125	2.90	ug/L		94

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104811.D
Acq On : 16 Jun 2021 8:17 pm
Operator : EddieH
Sample : ic4538-8
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 18 14:44:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uFri Jun 18 14:38:34 2021
QLast Update : Fri Jun 18 14:38:34 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104812.D
Acq On : 16 Jun 2021 8:46 pm
Operator : EddieH
Sample : ic4538-20
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 17 09:16:43 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.479	65	169800	500.00	ug/L		-0.02
5) pentafluorobenzene	8.445	168	320816	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	397678	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	392535	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	274161	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.472	113	141887	49.44	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.88%				
53) 1,2-dichloroethane-d4 (s)	8.859	65	143419	49.89	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.78%				
74) toluene-d8 (s)	10.909	98	483132	50.19	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%				
97) 4-bromofluorobenzene (s)	13.770	95	200056	48.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.96%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.568	59	34962	93.13	ug/L		100
4) 1,4-dioxane	9.952	88	16576	474.68	ug/L		89
6) chlorodifluoromethane	3.707	51	112013	19.37	ug/L		98
7) dichlorodifluoromethane	3.691	85	145500	18.24	ug/L		98
8) chloromethane	3.984	50	127901	18.92	ug/L		99
9) vinyl chloride	4.183	62	122466	18.92	ug/L		99
10) 1,3-butadiene	4.193	54	87473	19.02	ug/L		99
11) bromomethane	4.706	94	84652	19.30	ug/L		98
12) chloroethane	4.826	64	52444	19.68	ug/L		94
13) trichlorofluoromethane	5.245	101	133284	18.31	ug/L		96
14) ethyl ether	5.532	74	22539	19.49	ug/L		93
15) acrolein	5.700	56	8347	17.34	ug/L		88
16) freon 113	5.935	151	71146	18.48	ug/L		97
17) 1,1-dichloroethene	5.893	61	88226	18.97	ug/L		97
18) acetone	5.862	58	15409	75.64	ug/L	#	79
19) acetonitrile	6.249	41	72466	200.65	ug/L		96
20) iodomethane	6.113	142	129111	18.79	ug/L		96
21) carbon disulfide	6.254	76	219454	19.14	ug/L		99
22) methylene chloride	6.479	84	60021	18.94	ug/L		95
23) methyl acetate	6.275	43	36244	20.98	ug/L		97
24) methyl tert butyl ether	6.814	73	158500	19.57	ug/L		98
25) trans-1,2-dichloroethene	6.840	61	80028	19.24	ug/L		97
26) hexane	7.148	56	42349	18.54	ug/L		97
27) di-isopropyl ether	7.337	45	215412	19.11	ug/L		98
28) 2-butanone	7.891	72	16933	77.00	ug/L	#	64
29) 1,1-dichloroethane	7.331	63	97872	19.31	ug/L		99
30) chloroprene	7.426	53	70962	18.29	ug/L		96
31) acrylonitrile	6.720	53	16044	19.73	ug/L		91
32) vinyl acetate	7.263	86	6520	17.35	ug/L	#	90
33) ethyl tert-butyl ether	7.734	59	195385	19.22	ug/L		99
34) ethyl acetate	7.917	45	6904	18.89	ug/L	#	84
35) 2,2-dichloropropane	8.011	77	110721	18.83	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104812.D
Acq On : 16 Jun 2021 8:46 pm
Operator : EddieH
Sample : ic4538-20
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 17 09:16:43 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	7.964	96	54872	18.82	ug/L		97
37) propionitrile	7.938	54	62439	193.61	ug/L		98
38) methyl acrylate	7.996	85	5893	18.56	ug/L	#	56
39) methacrylonitrile	8.132	67	15956	19.38	ug/L		96
40) bromochloromethane	8.231	128	30116	18.62	ug/L		93
41) tetrahydrofuran	8.273	72	5421	19.49	ug/L		91
42) chloroform	8.299	83	96728	18.97	ug/L		98
43) tert-butyl formate	8.351	59	53765	18.64	ug/L		92
45) 1,1,1-trichloroethane	8.566	97	118772	18.06	ug/L		98
46) cyclohexane	8.686	84	104889	17.95	ug/L		91
48) 1,1-dichloropropene	8.712	75	66533	18.48	ug/L		99
49) carbon tetrachloride	8.754	117	105680	18.19	ug/L		99
50) tert-amyl alcohol	8.812	73	13389	100.88	ug/L		95
51) isopropyl acetate	8.843	87	9653	19.26	ug/L	#	83
54) n-butyl alcohol	9.356	41	64740	1096.36	ug/L		93
55) 2,2,4-trimethylpentane	9.037	57	195443	17.44	ug/L		98
56) benzene	8.937	78	191576	18.60	ug/L		98
57) tert-amyl methyl ether	9.016	73	186177	19.19	ug/L		95
58) heptane	9.188	57	37284	18.51	ug/L		94
59) 1,2-dichloroethane	8.942	62	66059	19.06	ug/L		100
60) ethyl acrylate	9.591	55	51646	19.70	ug/L		97
61) trichloroethene	9.617	95	49579	18.25	ug/L		96
62) 2-chloroethyl vinyl ether	10.360	63	138246	93.75	ug/L		100
63) methyl methacrylate	9.847	100	9923	18.06	ug/L	#	88
64) methylcyclohexane	9.920	83	116452	18.06	ug/L		93
65) 1,2-dichloropropane	9.873	63	52785	18.98	ug/L		97
66) dibromomethane	9.983	93	30425	18.84	ug/L		95
67) bromodichloromethane	10.130	83	68837	18.48	ug/L		99
68) 2-nitropropane	10.302	41	9584	17.11	ug/L		91
69) epichlorohydrin	10.443	57	22111	96.37	ug/L		97
70) cis-1,3-dichloropropene	10.585	75	76674	18.41	ug/L		97
71) 4-methyl-2-pentanone	10.679	58	77163	79.15	ug/L		99
72) isoamyl alcohol	10.684	70	31461	415.17	ug/L		96
75) toluene	10.982	92	118927	18.45	ug/L		96
76) ethyl methacrylate	11.165	69	51883	18.55	ug/L		95
77) trans-1,3-dichloropropene	11.160	75	67666	18.54	ug/L		99
78) 1,1,2-trichloroethane	11.385	83	36177	19.16	ug/L		97
79) tetrachloroethene	11.568	164	51579	18.59	ug/L		95
80) 2-hexanone	11.563	58	63004	80.12	ug/L		99
81) 1,3-dichloropropane	11.573	76	67176	19.22	ug/L		95
82) butyl acetate	11.662	56	29633	19.36	ug/L		94
83) dibromochloromethane	11.840	129	57007	18.36	ug/L		97
84) 1,2-dibromoethane	12.007	107	46709	19.01	ug/L		93
85) n-butyl ether	12.504	57	241082	19.10	ug/L		99
86) chlorobenzene	12.530	112	144818	19.07	ug/L		97
87) 1,1,1,2-tetrachloroethane	12.598	131	69369	18.06	ug/L		98
88) ethylbenzene	12.598	91	257954	18.85	ug/L		100
89) m,p-xylene	12.734	106	199411	37.81	ug/L		96
90) o-xylene	13.168	91	229307	18.71	ug/L		98
91) styrene	13.179	104	148236	18.35	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104812.D
Acq On : 16 Jun 2021 8:46 pm
Operator : EddieH
Sample : ic4538-20
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 17 09:16:43 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

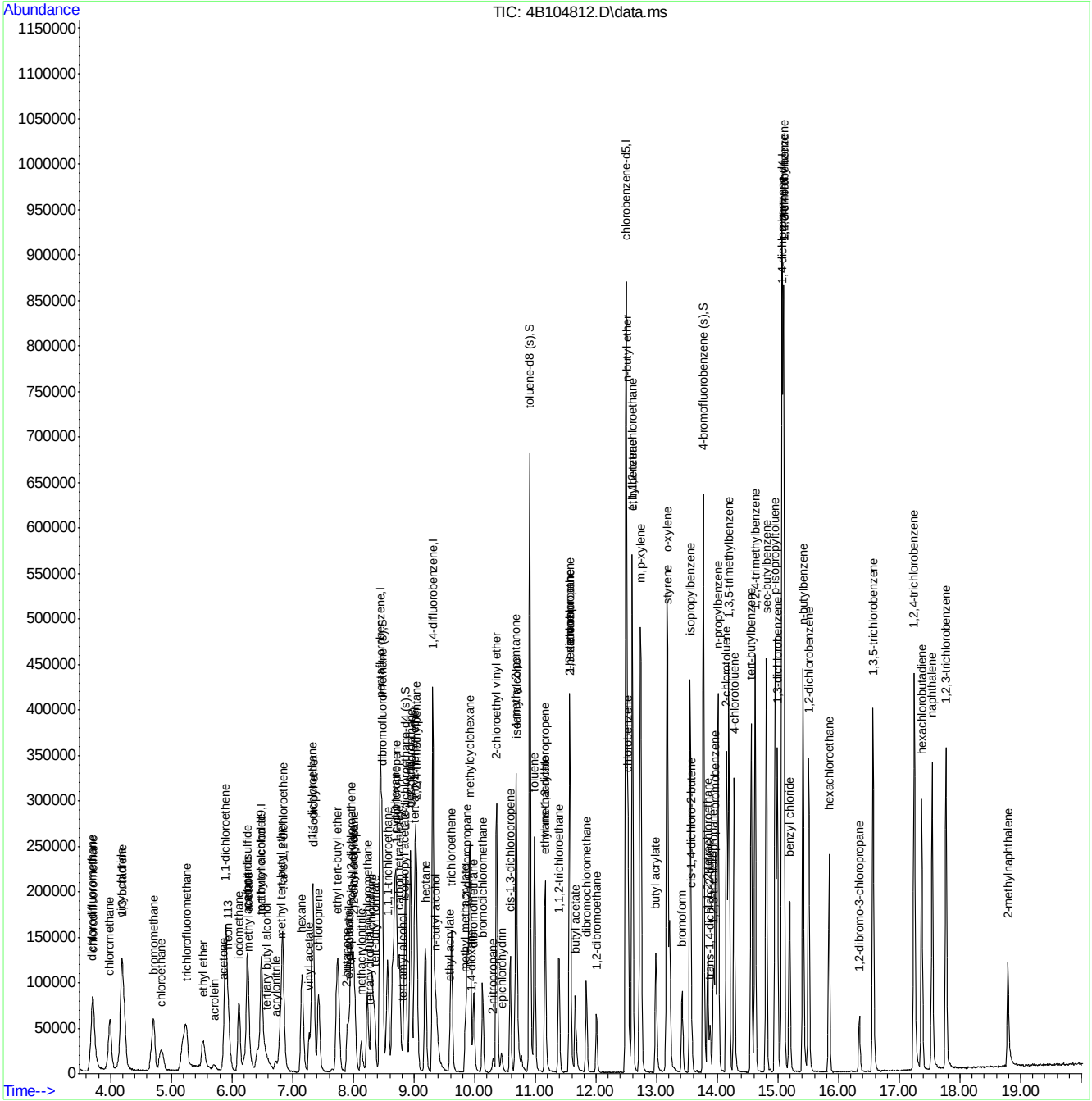
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	butyl acrylate	12.985	55	102400	19.58	ug/L		98
93)	isopropylbenzene	13.550	105	304539	18.26	ug/L		99
94)	bromoform	13.419	173	46154	18.82	ug/L		99
95)	cis-1,4-dichloro-2-butene	13.571	88	12351	17.39	ug/L		94
98)	1,1,2,2-tetrachloroethane	13.843	83	69200	18.58	ug/L		98
99)	trans-1,4-dichloro-2-b...	13.880	53	10487	17.03	ug/L		96
100)	1,2,3-trichloropropane	13.937	110	18767	19.49	ug/L	#	80
101)	bromobenzene	13.969	156	78316	18.20	ug/L		97
102)	n-propylbenzene	14.010	91	343294	18.18	ug/L		99
103)	2-chlorotoluene	14.152	126	72359	17.96	ug/L		90
104)	4-chlorotoluene	14.277	91	199569	18.75	ug/L		100
105)	1,3,5-trimethylbenzene	14.188	105	257006	17.79	ug/L		99
106)	tert-butylbenzene	14.560	119	202659	17.08	ug/L		97
107)	1,2,4-trimethylbenzene	14.622	105	272716	18.32	ug/L		98
108)	sec-butylbenzene	14.805	105	337434	17.69	ug/L		99
109)	p-isopropyltoluene	14.952	119	305463	18.07	ug/L		99
110)	1,3-dichlorobenzene	14.989	146	155371	18.67	ug/L		99
111)	1,2,3-trimethylbenzene	15.093	105	280068	17.85	ug/L		98
112)	1,4-dichlorobenzene	15.093	146	159103	18.79	ug/L		98
113)	1,2-dichlorobenzene	15.506	146	168035	18.95	ug/L		98
114)	benzyl chloride	15.187	91	152647	19.07	ug/L		99
115)	n-butylbenzene	15.412	92	151437	18.48	ug/L		99
116)	hexachloroethane	15.841	201	48814	16.45	ug/L		95
117)	1,2-dibromo-3-chloropr...	16.343	157	21916	18.45	ug/L		96
118)	1,3,5-trichlorobenzene	16.568	180	159108	18.27	ug/L		98
119)	1,2,4-trichlorobenzene	17.243	180	155651	18.21	ug/L		99
120)	hexachlorobutadiene	17.368	225	73309	18.96	ug/L		98
121)	naphthalene	17.541	128	296118	18.38	ug/L		99
122)	1,2,3-trichlorobenzene	17.771	180	138788	18.15	ug/L		98
123)	2-methylnaphthalene	18.791	142	83051	8.87	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104812.D
Acq On : 16 Jun 2021 8:46 pm
Operator : EddieH
Sample : ic4538-20
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 17 09:16:43 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104813.D
Acq On : 16 Jun 2021 9:14 pm
Operator : EddieH
Sample : icc4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 17 09:16:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.500	65	149330	500.00	ug/L	0.00
5) pentafluorobenzene	8.445	168	313734	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.308	114	390146	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	387969	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	258378	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	140317	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	141010	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
74) toluene-d8 (s)	10.909	98	475692	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
97) 4-bromofluorobenzene (s)	13.770	95	192449	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.584	59	82541	250.00	ug/L	100
4) 1,4-dioxane	9.947	88	38388	1250.00	ug/L	100
6) chlorodifluoromethane	3.707	51	282825	50.00	ug/L	100
7) dichlorodifluoromethane	3.696	85	390053	50.00	ug/L	100
8) chloromethane	3.989	50	330226	49.95	ug/L	100
9) vinyl chloride	4.183	62	316580	50.00	ug/L	100
10) 1,3-butadiene	4.199	54	224651	49.95	ug/L	100
11) bromomethane	4.706	94	214429	50.00	ug/L	100
12) chloroethane	4.826	64	130276	50.00	ug/L	100
13) trichlorofluoromethane	5.239	101	355906	50.00	ug/L	100
14) ethyl ether	5.522	74	56540	50.00	ug/L	100
15) acrolein	5.715	56	23533	50.00	ug/L	100
16) freon 113	5.919	151	188227	50.00	ug/L	100
17) 1,1-dichloroethene	5.893	61	227393	50.00	ug/L	100
18) acetone	5.872	58	39846	200.00	ug/L	100
19) acetonitrile	6.233	41	176591	500.00	ug/L	100
20) iodomethane	6.113	142	336023	50.00	ug/L	100
21) carbon disulfide	6.254	76	560620	50.00	ug/L	100
22) methylene chloride	6.479	84	154967	50.00	ug/L	100
23) methyl acetate	6.264	43	84487	50.00	ug/L	100
24) methyl tert butyl ether	6.819	73	396105	50.00	ug/L	100
25) trans-1,2-dichloroethene	6.835	61	203426	50.00	ug/L	100
26) hexane	7.154	56	111681	50.00	ug/L	100
27) di-isopropyl ether	7.331	45	551173	50.00	ug/L	100
28) 2-butanone	7.891	72	43009	200.00	ug/L	100
29) 1,1-dichloroethane	7.326	63	247839	50.00	ug/L	100
30) chloroprene	7.426	53	189718	50.00	ug/L	100
31) acrylonitrile	6.709	53	39759	50.00	ug/L	100
32) vinyl acetate	7.258	86	18374	50.00	ug/L	100
33) ethyl tert-butyl ether	7.739	59	497098	50.00	ug/L	100
34) ethyl acetate	7.912	45	17868	50.00	ug/L	100
35) 2,2-dichloropropane	8.006	77	287477	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104813.D
Acq On : 16 Jun 2021 9:14 pm
Operator : EddieH
Sample : icc4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 17 09:16:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) cis-1,2-dichloroethene	7.959	96	142558	50.00	ug/L	100
37) propionitrile	7.933	54	157688	499.99	ug/L	100
38) methyl acrylate	7.990	85	15523	50.00	ug/L	100
39) methacrylonitrile	8.126	67	40253	50.00	ug/L	100
40) bromochloromethane	8.231	128	79076	50.00	ug/L	100
41) tetrahydrofuran	8.268	72	13546	49.81	ug/L	100
42) chloroform	8.304	83	249279	50.00	ug/L	100
43) tert-butyl formate	8.346	59	140998	50.00	ug/L	100
45) 1,1,1-trichloroethane	8.566	97	321636	50.00	ug/L	100
46) cyclohexane	8.691	84	285650	50.00	ug/L	100
48) 1,1-dichloropropene	8.712	75	176087	50.00	ug/L	100
49) carbon tetrachloride	8.754	117	284126	50.00	ug/L	100
50) tert-amyl alcohol	8.817	73	32447	250.00	ug/L	100
51) isopropyl acetate	8.838	87	24503	50.00	ug/L	100
54) n-butyl alcohol	9.356	41	144829	2500.00	ug/L	100
55) 2,2,4-trimethylpentane	9.037	57	549678	50.00	ug/L	100
56) benzene	8.937	78	505228	50.00	ug/L	100
57) tert-amyl methyl ether	9.016	73	475823	50.00	ug/L	100
58) heptane	9.183	57	98386	49.80	ug/L	100
59) 1,2-dichloroethane	8.942	62	170040	50.00	ug/L	100
60) ethyl acrylate	9.586	55	128588	50.00	ug/L	100
61) trichloroethene	9.617	95	133263	50.00	ug/L	100
62) 2-chloroethyl vinyl ether	10.360	63	361681	250.00	ug/L	100
63) methyl methacrylate	9.842	100	26946	50.00	ug/L	100
64) methylcyclohexane	9.920	83	316339	50.00	ug/L	100
65) 1,2-dichloropropane	9.879	63	136454	50.00	ug/L	100
66) dibromomethane	9.983	93	79216	50.00	ug/L	100
67) bromodichloromethane	10.130	83	182674	50.00	ug/L	100
68) 2-nitropropane	10.302	41	27473	50.00	ug/L	100
69) epichlorohydrin	10.438	57	56276	250.00	ug/L	100
70) cis-1,3-dichloropropene	10.585	75	204316	50.00	ug/L	100
71) 4-methyl-2-pentanone	10.679	58	191286	200.00	ug/L	100
72) isoamyl alcohol	10.684	70	74344	1000.00	ug/L	100
75) toluene	10.982	92	318616	50.00	ug/L	100
76) ethyl methacrylate	11.160	69	138186	50.00	ug/L	100
77) trans-1,3-dichloropropene	11.160	75	180336	50.00	ug/L	100
78) 1,1,2-trichloroethane	11.385	83	93326	50.00	ug/L	100
79) tetrachloroethene	11.568	164	137090	50.00	ug/L	100
80) 2-hexanone	11.557	58	156409	201.24	ug/L	100
81) 1,3-dichloropropane	11.573	76	172764	50.00	ug/L	100
82) butyl acetate	11.657	56	75631	50.00	ug/L	100
83) dibromochloromethane	11.840	129	153459	50.00	ug/L	100
84) 1,2-dibromoethane	12.002	107	121440	50.00	ug/L	100
85) n-butyl ether	12.499	57	623703	50.00	ug/L	100
86) chlorobenzene	12.530	112	375297	50.00	ug/L	100
87) 1,1,1,2-tetrachloroethane	12.598	131	189782	50.00	ug/L	100
88) ethylbenzene	12.598	91	676354	50.00	ug/L	100
89) m,p-xylene	12.729	106	521296	100.00	ug/L	100
90) o-xylene	13.163	91	605650	50.00	ug/L	100
91) styrene	13.179	104	399193	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104813.D
Acq On : 16 Jun 2021 9:14 pm
Operator : EddieH
Sample : icc4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 17 09:16:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

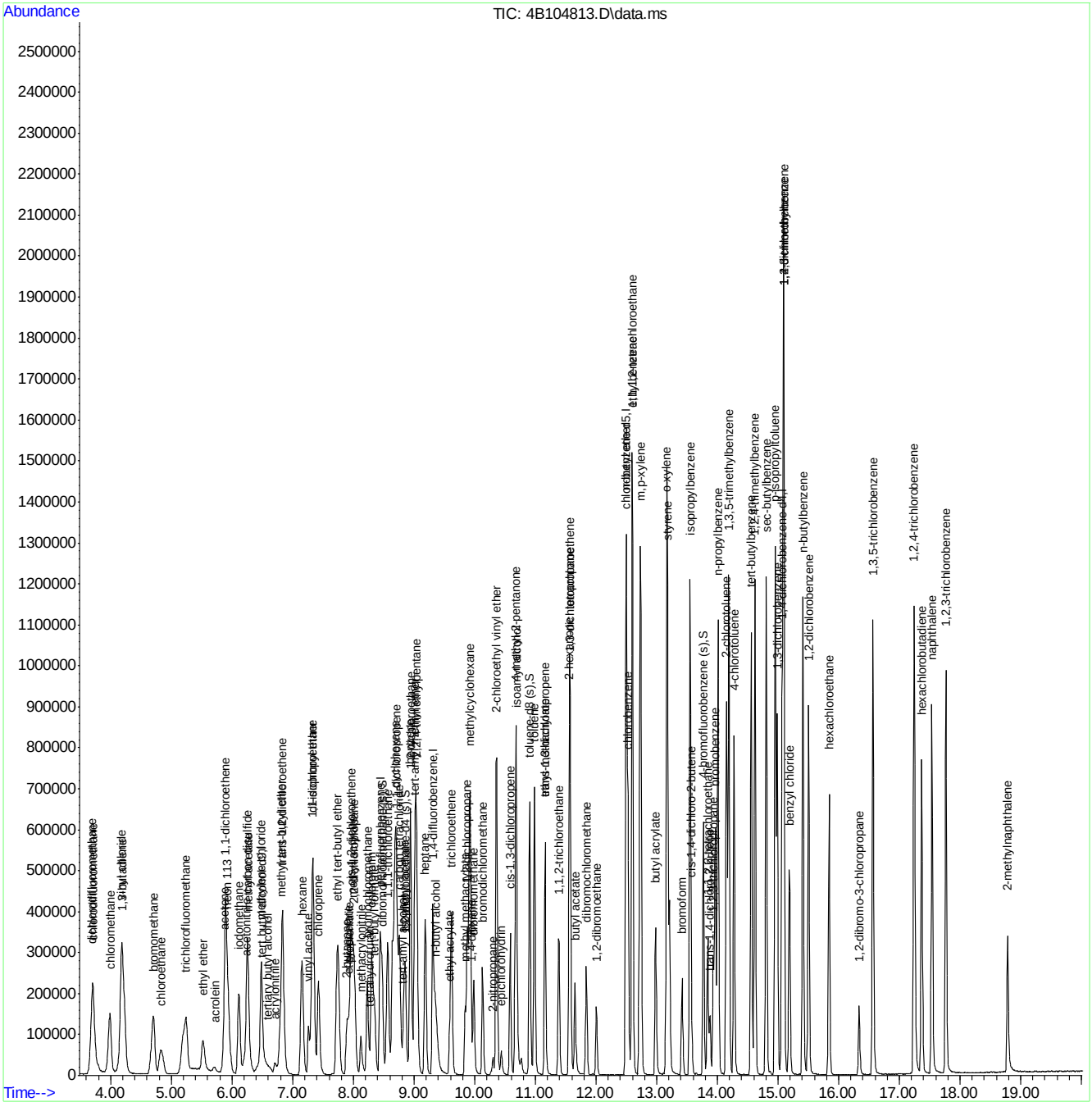
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) butyl acrylate	12.980	55	258515	50.00	ug/L	100
93) isopropylbenzene	13.550	105	824043	50.00	ug/L	100
94) bromoform	13.419	173	121170	50.00	ug/L	100
95) cis-1,4-dichloro-2-butene	13.571	88	35107	50.00	ug/L	100
98) 1,1,2,2-tetrachloroethane	13.838	83	175458	50.00	ug/L	100
99) trans-1,4-dichloro-2-b...	13.874	53	29013	50.00	ug/L	100
100) 1,2,3-trichloropropane	13.932	110	45366	50.00	ug/L	100
101) bromobenzene	13.969	156	202820	50.00	ug/L	100
102) n-propylbenzene	14.010	91	889940	50.00	ug/L	100
103) 2-chlorotoluene	14.152	126	189900	50.00	ug/L	100
104) 4-chlorotoluene	14.277	91	501453	50.00	ug/L	100
105) 1,3,5-trimethylbenzene	14.188	105	680869	50.00	ug/L	100
106) tert-butylbenzene	14.560	119	559011	50.00	ug/L	100
107) 1,2,4-trimethylbenzene	14.617	105	701590	50.00	ug/L	100
108) sec-butylbenzene	14.805	105	898655	50.00	ug/L	100
109) p-isopropyltoluene	14.952	119	796758	50.00	ug/L	100
110) 1,3-dichlorobenzene	14.989	146	392168	50.00	ug/L	100
111) 1,2,3-trimethylbenzene	15.093	105	739187	50.00	ug/L	100
112) 1,4-dichlorobenzene	15.093	146	398972	50.00	ug/L	100
113) 1,2-dichlorobenzene	15.501	146	417837	50.00	ug/L	100
114) benzyl chloride	15.187	91	377277	50.00	ug/L	100
115) n-butylbenzene	15.412	92	386171	50.00	ug/L	100
116) hexachloroethane	15.841	201	139814	50.00	ug/L	100
117) 1,2-dibromo-3-chloropr...	16.338	157	55966	50.00	ug/L	100
118) 1,3,5-trichlorobenzene	16.563	180	410289	50.00	ug/L	100
119) 1,2,4-trichlorobenzene	17.243	180	402738	50.00	ug/L	100
120) hexachlorobutadiene	17.368	225	182183	50.00	ug/L	100
121) naphthalene	17.536	128	759145	50.00	ug/L	100
122) 1,2,3-trichlorobenzene	17.766	180	360241	49.99	ug/L	100
123) 2-methylnaphthalene	18.786	142	220680	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104813.D
Acq On : 16 Jun 2021 9:14 pm
Operator : EddieH
Sample : icc4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 17 09:16:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104814.D
Acq On : 16 Jun 2021 9:42 pm
Operator : EddieH
Sample : ic4538-100
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 17 09:17:00 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.474	65	131900	500.00	ug/L	-0.03
5) pentafluorobenzene	8.446	168	319973	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.309	114	403373	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	391655	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	251070	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.472	113	142186	49.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	141867	48.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.30%			
74) toluene-d8 (s)	10.909	98	490479	51.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.14%			
97) 4-bromofluorobenzene (s)	13.765	95	190680	50.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.96%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.610	59	134506	461.23	ug/L	89
4) 1,4-dioxane	9.947	88	63460	2339.47	ug/L	88
6) chlorodifluoromethane	3.707	51	469823	81.44	ug/L	99
7) dichlorodifluoromethane	3.697	85	630277	79.22	ug/L	97
8) chloromethane	3.984	50	561030	83.21	ug/L	99
9) vinyl chloride	4.178	62	532369	82.44	ug/L	98
10) 1,3-butadiene	4.193	54	363794	79.31	ug/L	99
11) bromomethane	4.701	94	369698	84.52	ug/L	99
12) chloroethane	4.832	64	221418	83.32	ug/L	97
13) trichlorofluoromethane	5.234	101	591952	81.54	ug/L	99
14) ethyl ether	5.517	74	97732	84.74	ug/L	87
15) acrolein	5.705	56	40254	83.86	ug/L	97
16) freon 113	5.925	151	317190	82.61	ug/L	94
17) 1,1-dichloroethene	5.893	61	382840	82.54	ug/L	98
18) acetone	5.878	58	63176	310.92	ug/L	99
19) acetonitrile	6.218	41	280191	777.86	ug/L	95
20) iodomethane	6.113	142	579586	84.56	ug/L	98
21) carbon disulfide	6.254	76	951921	83.24	ug/L	99
22) methylene chloride	6.479	84	264569	83.70	ug/L	97
23) methyl acetate	6.265	43	142165	82.49	ug/L	99
24) methyl tert butyl ether	6.819	73	666261	82.46	ug/L	98
25) trans-1,2-dichloroethene	6.835	61	351685	84.76	ug/L	97
26) hexane	7.154	56	188062	82.55	ug/L	96
27) di-isopropyl ether	7.337	45	959918	85.38	ug/L	98
28) 2-butanone	7.886	72	69149	315.29	ug/L	96
29) 1,1-dichloroethane	7.326	63	430519	85.16	ug/L	100
30) chloroprene	7.426	53	327948	84.75	ug/L	96
31) acrylonitrile	6.709	53	68309	84.23	ug/L	87
32) vinyl acetate	7.258	86	33562	89.55	ug/L	95
33) ethyl tert-butyl ether	7.740	59	846481	83.48	ug/L	98
34) ethyl acetate	7.907	45	29441	80.78	ug/L #	72
35) 2,2-dichloropropane	8.012	77	489766	83.52	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104814.D
Acq On : 16 Jun 2021 9:42 pm
Operator : EddieH
Sample : ic4538-100
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 17 09:17:00 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	7.964	96	252041	86.68	ug/L		91
37) propionitrile	7.928	54	250134	777.65	ug/L		98
38) methyl acrylate	7.991	85	26799	84.64	ug/L	#	83
39) methacrylonitrile	8.121	67	70736	86.15	ug/L		94
40) bromochloromethane	8.226	128	137874	85.48	ug/L		96
41) tetrahydrofuran	8.263	72	22939	82.70	ug/L		99
42) chloroform	8.304	83	436720	85.89	ug/L		97
43) tert-butyl formate	8.346	59	245700	85.43	ug/L		97
45) 1,1,1-trichloroethane	8.566	97	550368	83.89	ug/L		99
46) cyclohexane	8.686	84	472386	81.07	ug/L		97
48) 1,1-dichloropropene	8.712	75	298403	83.08	ug/L		96
49) carbon tetrachloride	8.759	117	485268	83.73	ug/L		100
50) tert-amyl alcohol	8.812	73	49755	375.88	ug/L		98
51) isopropyl acetate	8.838	87	41981	83.99	ug/L	#	93
54) n-butyl alcohol	9.350	41	217216	3626.57	ug/L		97
55) 2,2,4-trimethylpentane	9.042	57	1006767	88.57	ug/L		98
56) benzene	8.937	78	886978	84.90	ug/L		98
57) tert-amyl methyl ether	9.016	73	824618	83.81	ug/L		98
58) heptane	9.183	57	172793	84.59	ug/L		96
59) 1,2-dichloroethane	8.943	62	297645	84.65	ug/L		98
60) ethyl acrylate	9.581	55	220920	83.09	ug/L		98
61) trichloroethene	9.617	95	234771	85.20	ug/L		98
62) 2-chloroethyl vinyl ether	10.360	63	623551	416.88	ug/L		99
63) methyl methacrylate	9.837	100	47834	85.85	ug/L	#	91
64) methylcyclohexane	9.921	83	543002	83.01	ug/L		98
65) 1,2-dichloropropane	9.879	63	239625	84.93	ug/L		99
66) dibromomethane	9.983	93	139020	84.87	ug/L		96
67) bromodichloromethane	10.130	83	326359	86.40	ug/L		100
68) 2-nitropropane	10.302	41	46373	81.63	ug/L		100
69) epichlorohydrin	10.438	57	90869	390.44	ug/L		96
70) cis-1,3-dichloropropene	10.585	75	362350	85.77	ug/L		99
71) 4-methyl-2-pentanone	10.679	58	322584	326.22	ug/L		96
72) isoamyl alcohol	10.679	70	112935	1469.27	ug/L	#	88
75) toluene	10.982	92	562976	87.52	ug/L		99
76) ethyl methacrylate	11.155	69	238434	85.46	ug/L		96
77) trans-1,3-dichloropropene	11.155	75	316043	86.80	ug/L		97
78) 1,1,2-trichloroethane	11.385	83	163257	86.64	ug/L		97
79) tetrachloroethene	11.568	164	239315	86.46	ug/L		98
80) 2-hexanone	11.552	58	257368	328.03	ug/L		100
81) 1,3-dichloropropane	11.573	76	298726	85.64	ug/L		100
82) butyl acetate	11.652	56	123531	80.90	ug/L		88
83) dibromochloromethane	11.840	129	271369	87.59	ug/L		99
84) 1,2-dibromoethane	12.002	107	208947	85.22	ug/L		99
85) n-butyl ether	12.499	57	1074748	85.35	ug/L		99
86) chlorobenzene	12.525	112	657068	86.72	ug/L		98
87) 1,1,1,2-tetrachloroethane	12.598	131	345694	90.22	ug/L		97
88) ethylbenzene	12.598	91	1167168	85.47	ug/L		98
89) m,p-xylene	12.729	106	899615	170.95	ug/L		99
90) o-xylene	13.163	91	1062000	86.85	ug/L		100
91) styrene	13.179	104	694269	86.14	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104814.D
Acq On : 16 Jun 2021 9:42 pm
Operator : EddieH
Sample : ic4538-100
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 17 09:17:00 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

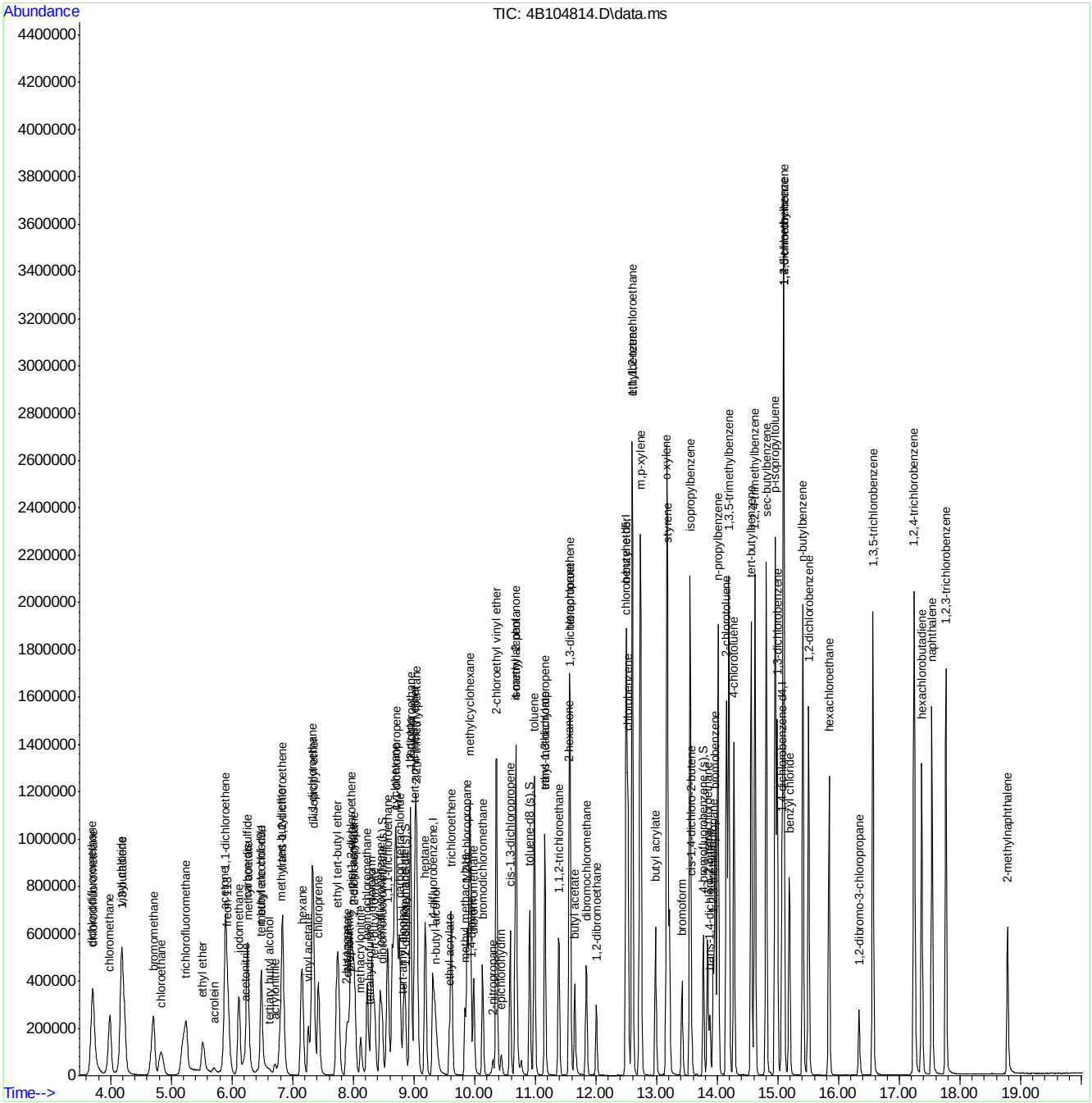
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	butyl acrylate	12.980	55	430951	82.57	ug/L	99
93)	isopropylbenzene	13.550	105	1448842	87.08	ug/L	100
94)	bromoform	13.420	173	210579	86.08	ug/L	100
95)	cis-1,4-dichloro-2-butene	13.571	88	62544	88.24	ug/L	95
98)	1,1,2,2-tetrachloroethane	13.838	83	296754	87.03	ug/L	100
99)	trans-1,4-dichloro-2-b...	13.875	53	50567	89.68	ug/L	99
100)	1,2,3-trichloropropane	13.932	110	78076	88.56	ug/L	97
101)	bromobenzene	13.969	156	354347	89.90	ug/L	97
102)	n-propylbenzene	14.011	91	1531006	88.52	ug/L	99
103)	2-chlorotoluene	14.152	126	331934	89.94	ug/L	99
104)	4-chlorotoluene	14.272	91	855322	87.77	ug/L	100
105)	1,3,5-trimethylbenzene	14.188	105	1212529	91.63	ug/L	99
106)	tert-butylbenzene	14.560	119	1020333	93.92	ug/L	98
107)	1,2,4-trimethylbenzene	14.617	105	1217433	89.29	ug/L	97
108)	sec-butylbenzene	14.806	105	1601121	91.68	ug/L	100
109)	p-isopropyltoluene	14.952	119	1415350	91.40	ug/L	100
110)	1,3-dichlorobenzene	14.989	146	671927	88.16	ug/L	97
111)	1,2,3-trimethylbenzene	15.093	105	1295622	90.19	ug/L	99
112)	1,4-dichlorobenzene	15.093	146	686611	88.55	ug/L	99
113)	1,2-dichlorobenzene	15.501	146	716642	88.25	ug/L	99
114)	benzyl chloride	15.187	91	626556	85.45	ug/L	100
115)	n-butylbenzene	15.407	92	658293	87.71	ug/L	99
116)	hexachloroethane	15.841	201	270684	99.62	ug/L	96
117)	1,2-dibromo-3-chloropr...	16.338	157	93574	86.03	ug/L	97
118)	1,3,5-trichlorobenzene	16.563	180	718046	90.05	ug/L	98
119)	1,2,4-trichlorobenzene	17.243	180	708159	90.48	ug/L	97
120)	hexachlorobutadiene	17.368	225	321065	90.68	ug/L	98
121)	naphthalene	17.536	128	1292203	87.59	ug/L	99
122)	1,2,3-trichlorobenzene	17.766	180	626345	89.45	ug/L	98
123)	2-methylnaphthalene	18.786	142	386324	45.04	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104814.D
Acq On : 16 Jun 2021 9:42 pm
Operator : EddieH
Sample : ic4538-100
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 17 09:17:00 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104815.D
Acq On : 16 Jun 2021 10:10 pm
Operator : EddieH
Sample : ic4538-200
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 17 16:00:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.505	65	136731	500.00	ug/L		0.00
5) pentafluorobenzene	8.445	168	321799	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.314	114	414541	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	403400	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.062	152	254399	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	146479	50.89	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.78%				
53) 1,2-dichloroethane-d4 (s)	8.864	65	139983	46.71	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.42%				
74) toluene-d8 (s)	10.909	98	507878	51.34	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.68%				
97) 4-bromofluorobenzene (s)	13.765	95	191455	50.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.620	59	290798	961.93	ug/L		100
4) 1,4-dioxane	9.941	88	126468	4497.54	ug/L		81
6) chlorodifluoromethane	3.707	51	1007043	173.57	ug/L		98
7) dichlorodifluoromethane	3.691	85	1213618	151.67	ug/L		96
8) chloromethane	3.984	50	1081244	159.46	ug/L		99
9) vinyl chloride	4.178	62	1026870	158.12	ug/L		98
10) 1,3-butadiene	4.193	54	721406	156.39	ug/L		99
11) bromomethane	4.701	94	704989	160.27	ug/L		99
12) chloroethane	4.826	64	415404	155.44	ug/L		97
13) trichlorofluoromethane	5.239	101	1140462	156.20	ug/L		98
14) ethyl ether	5.527	74	200407	172.78	ug/L		96
15) acrolein	5.705	56	82237	170.35	ug/L		93
16) freon 113	5.924	151	632198	163.73	ug/L		98
17) 1,1-dichloroethene	5.893	61	762477	163.45	ug/L		97
18) acetone	5.862	58	133111	651.38	ug/L		99
19) acetonitrile	6.223	41	564957	1559.53	ug/L		93
20) iodomethane	6.113	142	1171644	169.97	ug/L		98
21) carbon disulfide	6.254	76	1908521	165.95	ug/L		99
22) methylene chloride	6.479	84	534762	168.22	ug/L		98
23) methyl acetate	6.259	43	293994	169.63	ug/L		96
24) methyl tert butyl ether	6.819	73	1307013	160.85	ug/L		99
25) trans-1,2-dichloroethene	6.835	61	708817	169.85	ug/L		99
26) hexane	7.148	56	384262	167.72	ug/L		98
27) di-isopropyl ether	7.331	45	1942870	171.83	ug/L		98
28) 2-butanone	7.881	72	148513	673.31	ug/L		90
29) 1,1-dichloroethane	7.326	63	862888	169.72	ug/L		100
30) chloroprene	7.426	53	662088	170.12	ug/L		98
31) acrylonitrile	6.704	53	141759	173.80	ug/L		95
32) vinyl acetate	7.258	86	72045	191.14	ug/L		96
33) ethyl tert-butyl ether	7.745	59	1646093	161.42	ug/L		98
34) ethyl acetate	7.907	45	60164	164.14	ug/L	#	83
35) 2,2-dichloropropane	8.011	77	988457	167.61	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104815.D
Acq On : 16 Jun 2021 10:10 pm
Operator : EddieH
Sample : ic4538-200
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 17 16:00:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	7.959	96	513616	175.63	ug/L		95
37) propionitrile	7.933	54	523355	1617.85	ug/L		97
38) methyl acrylate	7.985	85	57017	179.05	ug/L	#	84
39) methacrylonitrile	8.121	67	149052	180.50	ug/L		97
40) bromochloromethane	8.231	128	283181	174.57	ug/L		94
41) tetrahydrofuran	8.262	72	49407	177.10	ug/L		92
42) chloroform	8.304	83	881606	172.40	ug/L		99
43) tert-butyl formate	8.346	59	501194	173.28	ug/L		95
45) 1,1,1-trichloroethane	8.566	97	1137192	172.35	ug/L		98
46) cyclohexane	8.686	84	939695	160.36	ug/L		99
48) 1,1-dichloropropene	8.712	75	622854	172.43	ug/L		98
49) carbon tetrachloride	8.759	117	1012141	173.65	ug/L		99
50) tert-amyl alcohol	8.827	73	106834	802.51	ug/L	#	67
51) isopropyl acetate	8.832	87	89275	177.61	ug/L		94
54) n-butyl alcohol	9.340	41	450438	7317.78	ug/L		98
55) 2,2,4-trimethylpentane	9.047	57	2179194	186.56	ug/L		97
56) benzene	8.937	78	1827974	170.26	ug/L		99
57) tert-amyl methyl ether	9.021	73	1615180	159.74	ug/L		99
58) heptane	9.183	57	353413	168.35	ug/L		99
59) 1,2-dichloroethane	8.942	62	610052	168.83	ug/L		100
60) ethyl acrylate	9.580	55	468662	171.51	ug/L		99
61) trichloroethene	9.617	95	482325	170.32	ug/L		96
62) 2-chloroethyl vinyl ether	10.360	63	1277217	830.88	ug/L		98
63) methyl methacrylate	9.842	100	101448	177.17	ug/L	#	86
64) methylcyclohexane	9.920	83	1136469	169.06	ug/L		98
65) 1,2-dichloropropane	9.879	63	492895	169.98	ug/L		99
66) dibromomethane	9.983	93	289599	172.03	ug/L		96
67) bromodichloromethane	10.130	83	680352	175.26	ug/L		100
68) 2-nitropropane	10.297	41	100299	171.80	ug/L		96
69) epichlorohydrin	10.438	57	189917	794.04	ug/L		98
70) cis-1,3-dichloropropene	10.585	75	743603	171.26	ug/L		99
71) 4-methyl-2-pentanone	10.679	58	681542	670.65	ug/L		91
72) isoamyl alcohol	10.679	70	232436	2942.50	ug/L	#	90
75) toluene	10.982	92	1176794	177.61	ug/L		99
76) ethyl methacrylate	11.155	69	514029	178.88	ug/L		98
77) trans-1,3-dichloropropene	11.155	75	649603	173.22	ug/L		99
78) 1,1,2-trichloroethane	11.385	83	338175	174.25	ug/L		97
79) tetrachloroethene	11.568	164	498745	174.95	ug/L		98
80) 2-hexanone	11.552	58	533759	660.49	ug/L		99
81) 1,3-dichloropropane	11.573	76	603425	167.96	ug/L		97
82) butyl acetate	11.652	56	256156	162.87	ug/L		97
83) dibromochloromethane	11.840	129	573163	179.60	ug/L		98
84) 1,2-dibromoethane	12.002	107	436541	172.86	ug/L		96
85) n-butyl ether	12.499	57	2178836	167.99	ug/L		99
86) chlorobenzene	12.525	112	1351049	173.11	ug/L		99
87) 1,1,1,2-tetrachloroethane	12.598	131	726488	184.08	ug/L		98
88) ethylbenzene	12.598	91	2394407	170.24	ug/L		98
89) m,p-xylene	12.729	106	1875375	345.99	ug/L		97
90) o-xylene	13.163	91	2214750	175.85	ug/L		100
91) styrene	13.174	104	1449149	174.57	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104815.D
Acq On : 16 Jun 2021 10:10 pm
Operator : EddieH
Sample : ic4538-200
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 17 16:00:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration

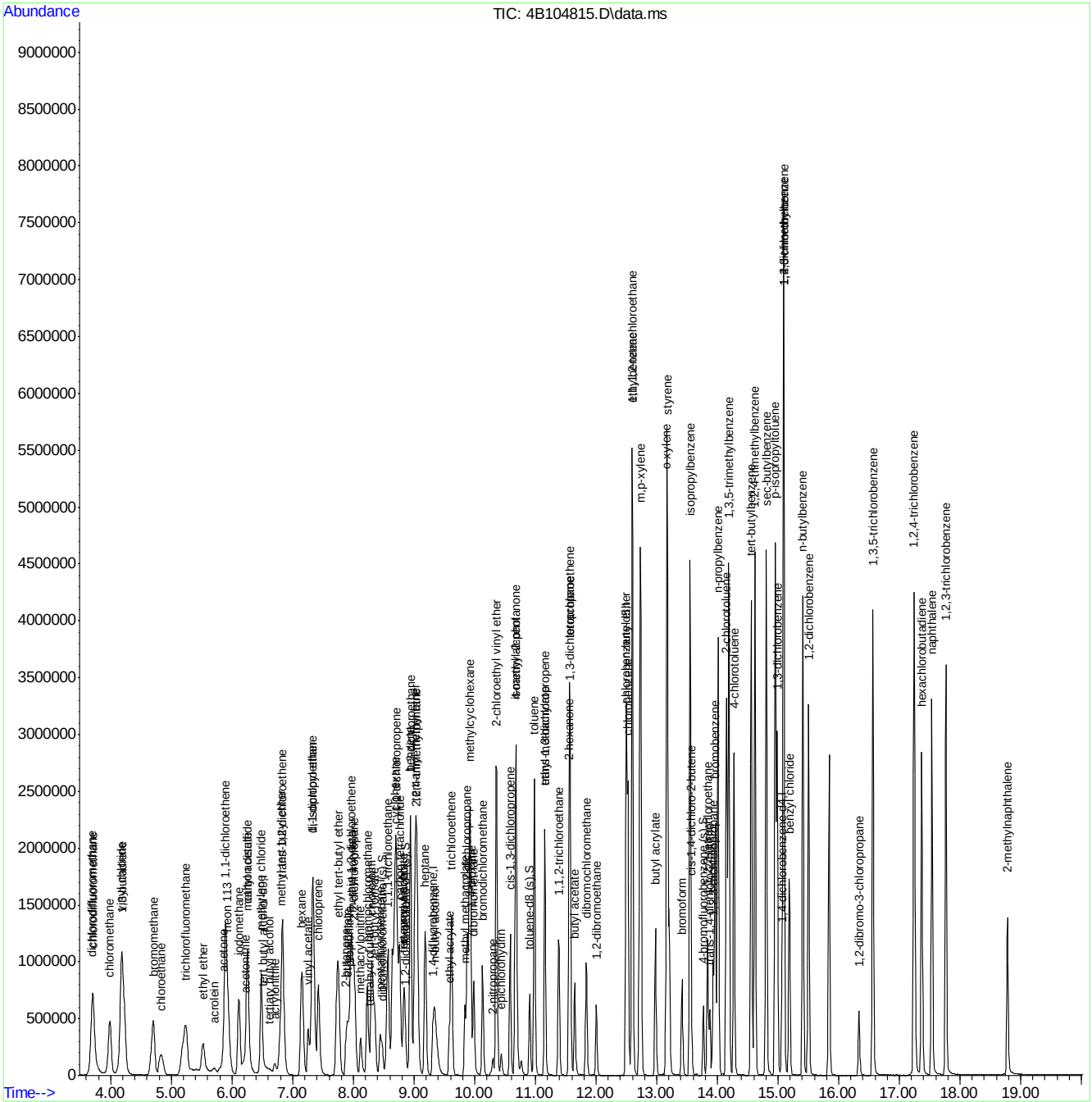
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	butyl acrylate	12.980	55	886030	164.81	ug/L	99
93)	isopropylbenzene	13.550	105	3052087	178.11	ug/L	100
94)	bromoform	13.419	173	445769	176.91	ug/L	99
95)	cis-1,4-dichloro-2-butene	13.571	88	135042	184.97	ug/L	95
98)	1,1,2,2-tetrachloroethane	13.838	83	622415	180.14	ug/L	98
99)	trans-1,4-dichloro-2-b...	13.874	53	109171	191.08	ug/L	99
100)	1,2,3-trichloropropane	13.932	110	159798	178.88	ug/L	96
101)	bromobenzene	13.963	156	720874	180.49	ug/L	97
102)	n-propylbenzene	14.010	91	3127042	178.44	ug/L	99
103)	2-chlorotoluene	14.152	126	689223	184.31	ug/L	98
104)	4-chlorotoluene	14.277	91	1730101	175.21	ug/L	98
105)	1,3,5-trimethylbenzene	14.188	105	2564863	191.30	ug/L	99
106)	tert-butylbenzene	14.560	119	2235126	203.04	ug/L	98
107)	1,2,4-trimethylbenzene	14.617	105	2546018	184.28	ug/L	96
108)	sec-butylbenzene	14.805	105	3430189	193.84	ug/L	99
109)	p-isopropyltoluene	14.952	119	3019317	192.44	ug/L	99
110)	1,3-dichlorobenzene	14.988	146	1358914	175.97	ug/L	99
111)	1,2,3-trimethylbenzene	15.093	105	2763175	189.83	ug/L	99
112)	1,4-dichlorobenzene	15.093	146	1390204	176.95	ug/L	99
113)	1,2-dichlorobenzene	15.501	146	1467094	178.30	ug/L	99
114)	benzyl chloride	15.187	91	1280719	172.39	ug/L	100
115)	n-butylbenzene	15.407	92	1368829	180.00	ug/L	99
117)	1,2-dibromo-3-chloropr...	16.338	157	195753	177.62	ug/L	96
118)	1,3,5-trichlorobenzene	16.563	180	1508544	186.71	ug/L	99
119)	1,2,4-trichlorobenzene	17.243	180	1460379	184.14	ug/L	99
120)	hexachlorobutadiene	17.368	225	686582	191.38	ug/L	99
121)	naphthalene	17.536	128	2695998	180.35	ug/L	99
122)	1,2,3-trichlorobenzene	17.766	180	1311862	184.90	ug/L	99
123)	2-methylnaphthalene	18.780	142	830210	95.52	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104815.D
Acq On : 16 Jun 2021 10:10 pm
Operator : EddieH
Sample : ic4538-200
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 17 16:00:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:06:37 2021
QLast Update : Thu Jun 17 09:06:37 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104818.D
Acq On : 16 Jun 2021 11:33 pm
Operator : EddieH
Sample : icv4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 22 17:14:14 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.505	65	166093	500.00	ug/L		0.04
5) pentafluorobenzene	8.445	168	327788	50.00	ug/L		0.00
52) 1,4-difluorobenzene	9.308	114	404943	50.00	ug/L		0.00
73) chlorobenzene-d5	12.494	117	393781	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	15.067	152	262887	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	8.477	113	141324	48.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.20%				
53) 1,2-dichloroethane-d4 (s)	8.859	65	139178	48.15	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.30%				
74) toluene-d8 (s)	10.909	98	491701	51.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.52%				
97) 4-bromofluorobenzene (s)	13.770	95	190755	49.41	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.82%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.615	59	85391	251.62	ug/L		96
4) 1,4-dioxane	9.952	88	38937	1271.96	ug/L		97
7) dichlorodifluoromethane	3.691	85	406763	61.88	ug/L		96
8) chloromethane	3.984	50	291817	47.52	ug/L		99
9) vinyl chloride	4.178	62	315445	55.51	ug/L		99
10) 1,3-butadiene	4.198	54	228828	56.81	ug/L		99
11) bromomethane	4.701	94	232064	56.82	ug/L		97
12) chloroethane	4.826	64	130512	51.93	ug/L		98
13) trichlorofluoromethane	5.234	101	352009	57.05	ug/L		99
14) ethyl ether	5.527	74	56888	54.00	ug/L		95
15) acrolein	5.710	56	25620	63.06	ug/L		95
16) freon 113	5.924	151	173181	51.72	ug/L		95
17) 1,1-dichloroethene	5.893	61	225092	54.36	ug/L		98
18) acetone	5.867	58	41196	220.42	ug/L		98
20) iodomethane	6.113	142	345566	56.06	ug/L		98
21) carbon disulfide	6.254	76	633070	59.80	ug/L		99
22) methylene chloride	6.484	84	154614	53.61	ug/L		95
23) methyl acetate	6.264	43	83509	50.29	ug/L		98
24) methyl tert butyl ether	6.814	73	404251	53.36	ug/L		99
25) trans-1,2-dichloroethene	6.834	61	199037	52.05	ug/L		99
26) hexane	7.159	56	108192	53.58	ug/L		96
27) di-isopropyl ether	7.331	45	527873	52.10	ug/L		98
28) 2-butanone	7.891	72	44564	250.94	ug/L		95
29) 1,1-dichloroethane	7.331	63	247451	54.16	ug/L		98
30) chloroprene	7.425	53	206020	59.11	ug/L		97
32) vinyl acetate	7.258	86	19419	56.72	ug/L		96
33) ethyl tert-butyl ether	7.739	59	479032	52.75	ug/L		99
34) ethyl acetate	7.907	45	17998	56.29	ug/L	#	75
35) 2,2-dichloropropane	8.006	77	290269	55.20	ug/L		98
36) cis-1,2-dichloroethene	7.964	96	149912	54.86	ug/L		97
37) propionitrile	7.933	54	160484	561.50	ug/L		97
38) methyl acrylate	7.985	85	16186	56.36	ug/L	#	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104818.D
Acq On : 16 Jun 2021 11:33 pm
Operator : EddieH
Sample : icv4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 22 17:14:14 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) methacrylonitrile	8.121	67	42150	56.90	ug/L		98
40) bromochloromethane	8.231	128	81767	57.13	ug/L		98
41) tetrahydrofuran	8.268	72	14455	56.55	ug/L		93
42) chloroform	8.304	83	252767	53.24	ug/L		99
43) tert-butyl formate	8.346	59	112136	43.97	ug/L		99
45) 1,1,1-trichloroethane	8.566	97	320510	56.63	ug/L		98
46) cyclohexane	8.691	84	298257	60.49	ug/L		97
48) 1,1-dichloropropene	8.712	75	175604	55.00	ug/L		99
49) carbon tetrachloride	8.759	117	289384	56.94	ug/L		99
50) tert-amyl alcohol	8.827	73	33517	259.78	ug/L	#	73
51) isopropyl acetate	8.838	87	25282	58.69	ug/L		99
54) n-butyl alcohol	9.350	41	140365	2600.22	ug/L		97
55) 2,2,4-trimethylpentane	9.036	57	512012	55.00	ug/L		99
56) benzene	8.937	78	518816	56.79	ug/L		99
57) tert-amyl methyl ether	9.015	73	447079	51.81	ug/L		98
58) heptane	9.188	57	97061	55.37	ug/L		97
59) 1,2-dichloroethane	8.942	62	170325	51.59	ug/L		99
60) ethyl acrylate	9.586	55	131442	56.90	ug/L		99
61) trichloroethene	9.617	95	134796	55.98	ug/L		97
62) 2-chloroethyl vinyl ether	10.354	63	371300	288.85	ug/L		100
63) methyl methacrylate	9.842	100	28279	60.54	ug/L	#	70
64) methylcyclohexane	9.920	83	313907	56.73	ug/L		98
65) 1,2-dichloropropane	9.878	63	137654	54.05	ug/L		98
66) dibromomethane	9.983	93	80070	54.33	ug/L		93
67) bromodichloromethane	10.130	83	183200	55.30	ug/L		97
68) 2-nitropropane	10.302	41	26482	57.48	ug/L		97
69) epichlorohydrin	10.438	57	57893	283.46	ug/L		99
70) cis-1,3-dichloropropene	10.585	75	200504	54.61	ug/L		99
71) 4-methyl-2-pentanone	10.679	58	200868	230.63	ug/L		93
72) isoamyl alcohol	10.684	70	72466	1108.08	ug/L		96
75) toluene	10.982	92	330735	58.23	ug/L		98
76) ethyl methacrylate	11.155	69	139422	57.78	ug/L		97
77) trans-1,3-dichloropropene	11.160	75	184240	59.26	ug/L		96
78) 1,1,2-trichloroethane	11.385	83	95227	57.97	ug/L		97
80) 2-hexanone	11.557	58	164669	238.21	ug/L		99
81) 1,3-dichloropropane	11.573	76	178642	57.60	ug/L		98
82) butyl acetate	11.657	56	76927	57.91	ug/L		94
83) dibromochloromethane	11.840	129	160381	60.12	ug/L		99
84) 1,2-dibromoethane	12.007	107	124810	57.31	ug/L		98
85) n-butyl ether	12.499	57	638923	57.09	ug/L		99
86) chlorobenzene	12.530	112	381862	57.01	ug/L		98
87) 1,1,1,2-tetrachloroethane	12.598	131	200981	60.45	ug/L		99
88) ethylbenzene	12.598	91	683925	57.24	ug/L		100
89) m,p-xylene	12.729	106	534015	115.91	ug/L		97
90) o-xylene	13.163	91	622155	58.12	ug/L		98
91) styrene	13.179	104	402992	59.44	ug/L		99
92) butyl acrylate	12.980	55	253564	55.71	ug/L		99
93) isopropylbenzene	13.550	105	842422	58.20	ug/L		99
94) bromoform	13.419	173	125317	59.82	ug/L		97
95) cis-1,4-dichloro-2-butene	13.571	88	36085	55.85	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104818.D
Acq On : 16 Jun 2021 11:33 pm
Operator : EddieH
Sample : icv4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 22 17:14:14 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration

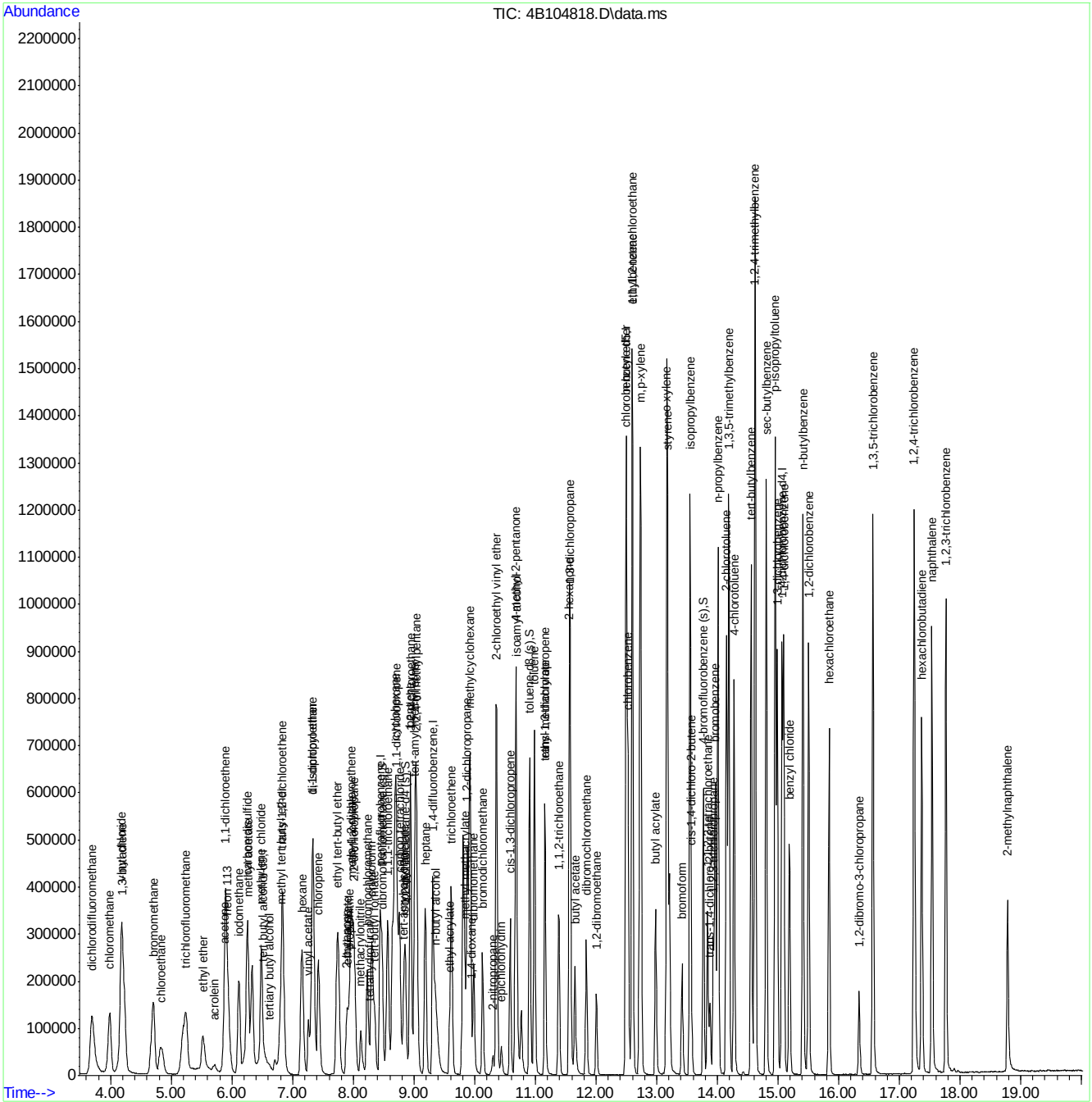
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) 1,1,2,2-tetrachloroethane	13.838	83	176508	56.89	ug/L	97
99) trans-1,4-dichloro-2-b...	13.874	53	30797	56.35	ug/L	98
100) 1,2,3-trichloropropane	13.932	110	48095	57.97	ug/L	88
101) bromobenzene	13.969	156	210337	57.94	ug/L	99
102) n-propylbenzene	14.010	91	911086	58.27	ug/L	99
103) 2-chlorotoluene	14.152	126	194191	57.98	ug/L	99
104) 4-chlorotoluene	14.277	91	507183	57.35	ug/L	99
105) 1,3,5-trimethylbenzene	14.188	105	705155	58.86	ug/L	99
106) tert-butylbenzene	14.560	119	583978	60.56	ug/L	100
107) 1,2,4-trimethylbenzene	14.617	105	715631	57.64	ug/L	96
108) sec-butylbenzene	14.805	105	929969	59.40	ug/L	99
109) p-isopropyltoluene	14.952	119	823634	58.46	ug/L	99
110) 1,3-dichlorobenzene	14.988	146	402438	57.14	ug/L	98
112) 1,4-dichlorobenzene	15.093	146	404952	55.47	ug/L	98
113) 1,2-dichlorobenzene	15.501	146	432321	57.52	ug/L	100
114) benzyl chloride	15.187	91	373789	56.40	ug/L	99
115) n-butylbenzene	15.412	92	395572	57.73	ug/L	99
116) hexachloroethane	15.841	201	154464	57.55	ug/L	98
117) 1,2-dibromo-3-chloropr...	16.338	157	58354	61.45	ug/L	98
118) 1,3,5-trichlorobenzene	16.563	180	436408	61.19	ug/L	99
119) 1,2,4-trichlorobenzene	17.243	180	422758	61.79	ug/L	98
120) hexachlorobutadiene	17.373	225	186003	56.93	ug/L	98
121) naphthalene	17.536	128	796161	60.24	ug/L	100
122) 1,2,3-trichlorobenzene	17.771	180	379072	62.44	ug/L	97
123) 2-methylnaphthalene	18.786	142	237847	30.25	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104818.D
Acq On : 16 Jun 2021 11:33 pm
Operator : EddieH
Sample : icv4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 22 17:14:14 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration



M4B4538.M Tue Jun 22 17:53:16 2021 MS4B Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104819.D
Acq On : 17 Jun 2021 12:01 am
Operator : EddieH
Sample : icv4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 17 15:19:09 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:41:19 2021
QLast Update : Thu Jun 17 09:41:19 2021
Response via : Initial Calibration

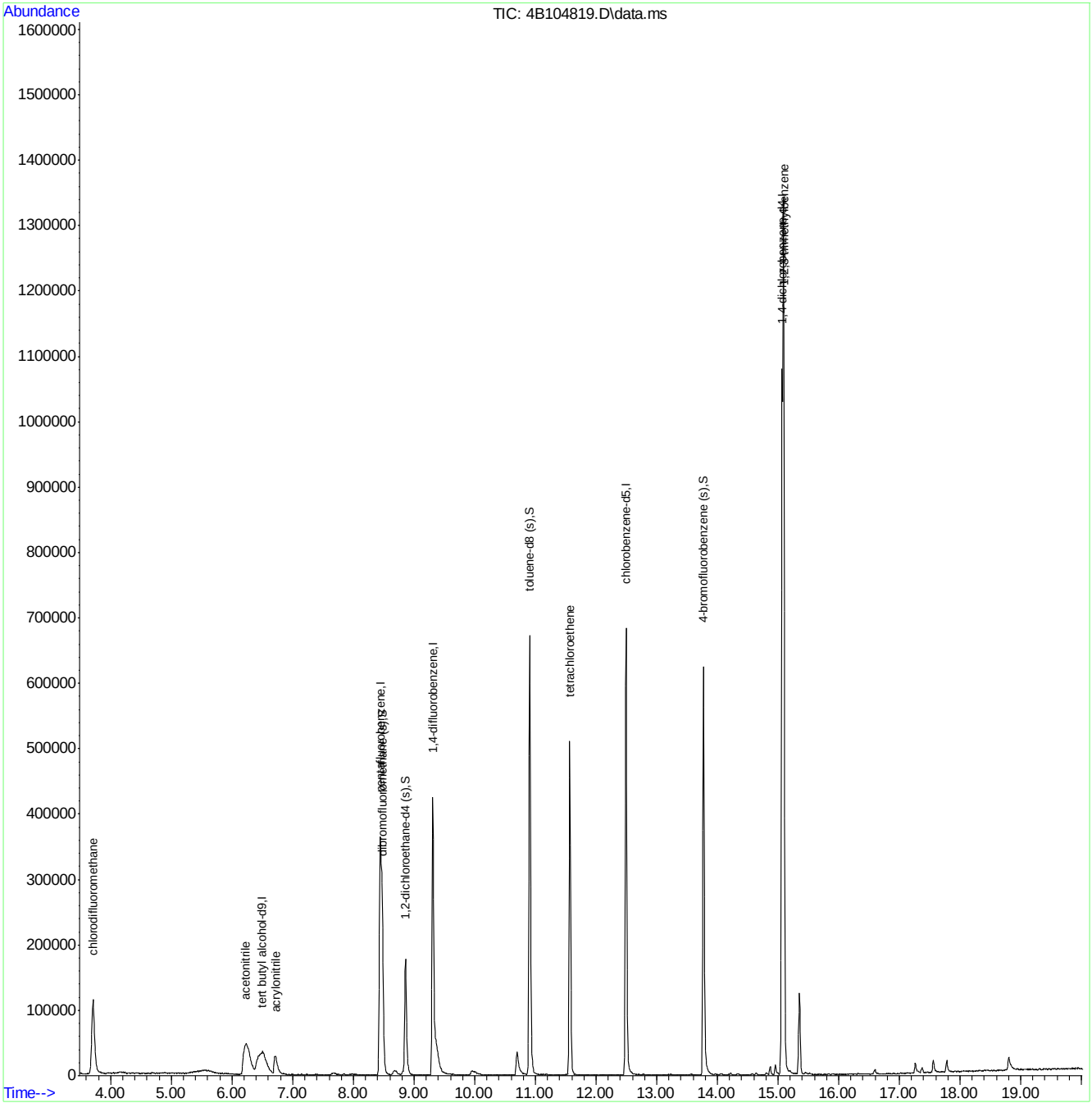
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.495	65	186320	500.00	ug/L	-0.01
5) pentafluorobenzene	8.445	168	335827	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	410345	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	412035	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.067	152	303425	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	144527	48.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.02%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	142147	48.53	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.06%			
74) toluene-d8 (s)	10.909	98	497580	49.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%			
97) 4-bromofluorobenzene (s)	13.770	95	216763	48.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.28%			
Target Compounds						Qvalue
6) chlorodifluoromethane	3.707	51	280171	53.51	ug/L	99
19) acetonitrile	6.217	41	199152	595.26	ug/L	96
31) acrylonitrile	6.720	53	41854	56.10	ug/L	97
79) tetrachloroethene	11.568	164	135488	54.29	ug/L	98
111) 1,2,3-trimethylbenzene	15.093	105	769186	50.98	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\V4B4538\
Data File : 4B104819.D
Acq On : 17 Jun 2021 12:01 am
Operator : EddieH
Sample : icv4538-50
Misc : MS51263,V4B4538,W,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 17 15:19:09 2021
Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uThu Jun 17 09:41:19 2021
QLast Update : Thu Jun 17 09:41:19 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105427.d
Acq On : 9 Jul 2021 8:53 pm
Operator : EddieH
Sample : cc4538-50 Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:07:52 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.453	65	179662	500.00	ug/L	0.02
5) pentafluorobenzene	8.445	168	360715	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	450867	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	462699	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	339908	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	173348	54.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.34%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	176354	54.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.60%			
74) toluene-d8 (s)	10.909	98	557328	49.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.90%			
97) 4-bromofluorobenzene (s)	13.765	95	243428	48.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.52%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.547	59	105792	288.19	ug/L	92
4) 1,4-dioxane	9.941	88	40569	1225.18	ug/L	95
6) chlorodifluoromethane	3.712	51	233150	41.46	ug/L	97
7) dichlorodifluoromethane	3.691	85	386810	53.47	ug/L	92
8) chloromethane	3.995	50	286685	42.42	ug/L	99
9) vinyl chloride	4.193	62	289172	46.24	ug/L	97
10) 1,3-butadiene	4.219	54	214072	48.29	ug/L	98
11) bromomethane	4.706	94	222418	49.49	ug/L	97
12) chloroethane	4.837	64	127871	46.23	ug/L	96
13) trichlorofluoromethane	5.239	101	412840	60.80	ug/L	97
14) ethyl ether	5.527	74	56905	49.08	ug/L	95
15) acrolein	5.705	56	24917	55.73	ug/L	99
16) freon 113	5.925	151	186181	50.53	ug/L	96
17) 1,1-dichloroethene	5.893	61	229682	50.41	ug/L	98
18) acetone	5.867	58	42990	209.02	ug/L #	80
19) acetonitrile	6.207	41	180159	501.34	ug/L	97
20) iodomethane	6.113	142	333914	49.22	ug/L	98
21) carbon disulfide	6.254	76	518457	44.51	ug/L	99
22) methylene chloride	6.484	84	161653	50.93	ug/L	97
23) methyl acetate	6.264	43	90400	49.47	ug/L	94
24) methyl tert butyl ether	6.814	73	438242	52.56	ug/L	98
25) trans-1,2-dichloroethene	6.835	61	210594	50.05	ug/L	95
26) hexane	7.154	56	99915	44.97	ug/L	95
27) di-isopropyl ether	7.331	45	513179	46.03	ug/L	97
28) 2-butanone	7.891	72	50739	259.64	ug/L #	70
29) 1,1-dichloroethane	7.331	63	262364	52.19	ug/L	99
30) chloroprene	7.426	53	205835	53.67	ug/L	96
31) acrylonitrile	6.709	53	47475	59.24	ug/L	93
32) vinyl acetate	7.263	86	19065	50.61	ug/L #	85
33) ethyl tert-butyl ether	7.745	59	523826	52.41	ug/L	98
34) ethyl acetate	7.907	45	16153	45.91	ug/L #	65
35) 2,2-dichloropropane	8.001	77	307432	53.13	ug/L	97
36) cis-1,2-dichloroethene	7.959	96	155799	51.81	ug/L	98
37) propionitrile	7.933	54	169506	538.93	ug/L	97
38) methyl acrylate	7.990	85	18348	58.01	ug/L #	71
39) methacrylonitrile	8.126	67	44905	55.09	ug/L	95
40) bromochloromethane	8.231	128	90405	57.39	ug/L	91
41) tetrahydrofuran	8.262	72	15765	56.05	ug/L	87
42) chloroform	8.304	83	285019	54.55	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105427.d
Acq On : 9 Jul 2021 8:53 pm
Operator : EddieH
Sample : cc4538-50 Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:07:52 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.341	59	168831	60.15	ug/L		95
45) 1,1,1-trichloroethane	8.566	97	354396	56.90	ug/L		97
46) cyclohexane	8.691	84	273529	50.41	ug/L		92
48) 1,1-dichloropropene	8.712	75	183419	52.21	ug/L		96
49) carbon tetrachloride	8.754	117	324628	58.05	ug/L		96
50) tert-amyl alcohol	8.812	73	40675	286.48	ug/L	#	83
51) isopropyl acetate	8.838	87	27388	57.78	ug/L	#	69
54) n-butyl alcohol	9.340	41	147159	2448.40	ug/L		97
55) 2,2,4-trimethylpentane	9.042	57	611876	59.03	ug/L		98
56) benzene	8.937	78	517653	50.89	ug/L		98
57) tert-amyl methyl ether	9.016	73	515715	53.68	ug/L		97
58) heptane	9.183	57	96121	49.25	ug/L		93
59) 1,2-dichloroethane	8.942	62	209749	57.06	ug/L		91
60) ethyl acrylate	9.586	55	142189	55.28	ug/L		99
61) trichloroethene	9.617	95	145282	54.19	ug/L		97
62) 2-chloroethyl vinyl ether	10.360	63	401020	280.19	ug/L		98
63) methyl methacrylate	9.847	100	31342	60.26	ug/L	#	86
64) methylcyclohexane	9.920	83	308618	50.10	ug/L		96
65) 1,2-dichloropropane	9.879	63	137324	48.43	ug/L		99
66) dibromomethane	9.983	93	94797	57.77	ug/L		99
67) bromodichloromethane	10.130	83	217540	58.98	ug/L		100
68) 2-nitropropane	10.302	41	35694	69.58	ug/L		93
69) epichlorohydrin	10.438	57	62704	275.74	ug/L		96
70) cis-1,3-dichloropropene	10.585	75	229273	56.09	ug/L		96
71) 4-methyl-2-pentanone	10.679	58	213492	220.16	ug/L		98
72) isoamyl alcohol	10.679	70	86797	1192.03	ug/L		98
75) toluene	10.982	92	341760	51.21	ug/L		96
76) ethyl methacrylate	11.160	69	153110	54.00	ug/L		98
77) trans-1,3-dichloropropene	11.155	75	216419	59.24	ug/L		100
78) 1,1,2-trichloroethane	11.385	83	107336	55.61	ug/L		97
79) tetrachloroethene	11.568	164	152280	54.33	ug/L		99
80) 2-hexanone	11.557	58	182893	225.16	ug/L		98
81) 1,3-dichloropropane	11.573	76	200200	54.93	ug/L		97
82) butyl acetate	11.657	56	82897	53.11	ug/L		97
83) dibromochloromethane	11.840	129	192987	61.56	ug/L		95
84) 1,2-dibromoethane	12.007	107	145827	56.99	ug/L		97
85) n-butyl ether	12.499	57	666554	50.68	ug/L		98
86) chlorobenzene	12.525	112	434642	55.23	ug/L		99
87) 1,1,1,2-tetrachloroethane	12.593	131	225512	57.73	ug/L		97
88) ethylbenzene	12.598	91	751146	53.50	ug/L		99
89) m,p-xylene	12.729	106	588378	108.69	ug/L		99
90) o-xylene	13.163	91	684706	54.43	ug/L		98
91) styrene	13.179	104	465826	58.47	ug/L		97
92) butyl acrylate	12.980	55	293622	54.90	ug/L		98
93) isopropylbenzene	13.550	105	934933	54.97	ug/L		99
94) bromoform	13.419	173	165193	67.11	ug/L		98
95) cis-1,4-dichloro-2-butene	13.571	88	26217	35.19	ug/L		94
98) 1,1,2,2-tetrachloroethane	13.838	83	213326	53.18	ug/L		98
99) trans-1,4-dichloro-2-b...	13.874	53	22702	32.94	ug/L		90
100) 1,2,3-trichloropropane	13.932	110	59876	55.81	ug/L		89
101) bromobenzene	13.963	156	254148	54.15	ug/L		98
102) n-propylbenzene	14.010	91	1036837	51.29	ug/L		99
103) 2-chlorotoluene	14.152	126	230715	53.28	ug/L		95
104) 4-chlorotoluene	14.272	91	621198	54.32	ug/L		98
105) 1,3,5-trimethylbenzene	14.188	105	815578	52.65	ug/L		97
106) tert-butylbenzene	14.560	119	682917	54.77	ug/L		98
107) 1,2,4-trimethylbenzene	14.617	105	843388	52.54	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105427.d
Acq On : 9 Jul 2021 8:53 pm
Operator : EddieH
Sample : cc4538-50 Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:07:52 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

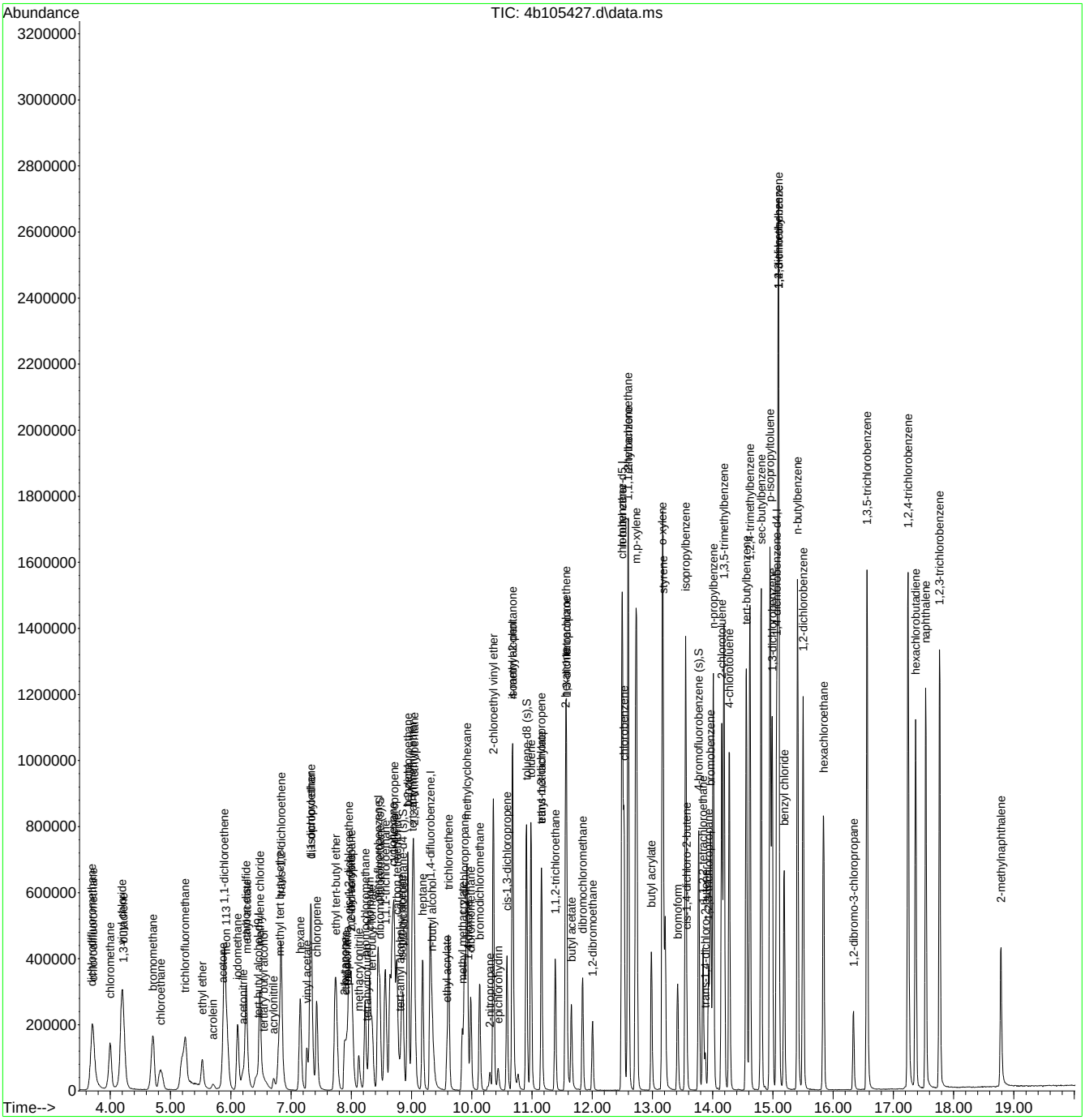
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	14.805	105	1090225	53.86	ug/L	99
109) p-isopropyltoluene	14.952	119	991383	54.42	ug/L	99
110) 1,3-dichlorobenzene	14.989	146	499875	54.89	ug/L	99
111) 1,2,3-trimethylbenzene	15.093	105	935728	55.36	ug/L	99
112) 1,4-dichlorobenzene	15.093	146	513788	54.43	ug/L	99
113) 1,2-dichlorobenzene	15.501	146	544769	56.06	ug/L	99
114) benzyl chloride	15.187	91	509685	59.48	ug/L	98
115) n-butylbenzene	15.407	92	494122	55.77	ug/L	99
116) hexachloroethane	15.841	201	178665	52.02	ug/L	97
117) 1,2-dibromo-3-chloropr...	16.338	157	78135	63.64	ug/L	95
118) 1,3,5-trichlorobenzene	16.563	180	583510	63.28	ug/L	99
119) 1,2,4-trichlorobenzene	17.243	180	543097	61.39	ug/L	99
120) hexachlorobutadiene	17.368	225	260323	61.62	ug/L	98
121) naphthalene	17.536	128	989756	57.92	ug/L	99
122) 1,2,3-trichlorobenzene	17.766	180	489023	62.30	ug/L	98
123) 2-methylnaphthalene	18.786	142	274158	26.97	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\july 2021\07132021\v4b4567\
Data File : 4b105427.d
Acq On : 9 Jul 2021 8:53 pm
Operator : EddieH
Sample : cc4538-50 Inst : MS4B
Misc : MS52082,V4B4567,W,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 11:07:52 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105453.d
Acq On : 12 Jul 2021 8:44 am
Operator : EddieH
Sample : CC4538-20 Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:14:56 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.458	65	180684	500.00	ug/L	0.02
5) pentafluorobenzene	8.445	168	355899	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.314	114	444286	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	459741	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	349626	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.477	113	163414	51.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.52%			
53) 1,2-dichloroethane-d4 (s)	8.864	65	173183	54.61	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.22%			
74) toluene-d8 (s)	10.909	98	533675	47.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.30%			
97) 4-bromofluorobenzene (s)	13.770	95	236543	46.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.14%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.552	59	41639	112.79	ug/L	98
4) 1,4-dioxane	9.941	88	17874	536.74	ug/L	91
6) chlorodifluoromethane	3.712	51	95767	17.26	ug/L	95
7) dichlorodifluoromethane	3.696	85	152578	21.38	ug/L	96
8) chloromethane	3.995	50	115884	17.38	ug/L	97
9) vinyl chloride	4.188	62	115149	18.66	ug/L	98
10) 1,3-butadiene	4.214	54	82165	18.79	ug/L	96
11) bromomethane	4.706	94	88776	20.02	ug/L	98
12) chloroethane	4.826	64	51002	18.69	ug/L	95
13) trichlorofluoromethane	5.245	101	163158	24.35	ug/L	95
14) ethyl ether	5.527	74	21833	19.09	ug/L	93
15) acrolein	5.715	56	9111	20.65	ug/L	93
16) freon 113	5.919	151	74202	20.41	ug/L	98
17) 1,1-dichloroethene	5.898	61	91585	20.37	ug/L	97
18) acetone	5.877	58	17471	86.10	ug/L	91
19) acetonitrile	6.217	41	73812	208.18	ug/L	90
20) iodomethane	6.113	142	129511	19.35	ug/L	94
21) carbon disulfide	6.254	76	203741	17.73	ug/L	99
22) methylene chloride	6.484	84	63134	20.16	ug/L	98
23) methyl acetate	6.275	43	34842	19.33	ug/L	95
24) methyl tert butyl ether	6.808	73	174913	21.26	ug/L	97
25) trans-1,2-dichloroethene	6.835	61	84705	20.40	ug/L	97
26) hexane	7.154	56	37936	17.30	ug/L	92
27) di-isopropyl ether	7.331	45	202420	18.40	ug/L	94
28) 2-butanone	7.891	72	19340	100.30	ug/L #	64
29) 1,1-dichloroethane	7.331	63	104372	21.04	ug/L	98
30) chloroprene	7.426	53	78226	20.67	ug/L	96
31) acrylonitrile	6.725	53	16547	20.93	ug/L	90
32) vinyl acetate	7.269	86	7990	21.50	ug/L #	66
33) ethyl tert-butyl ether	7.739	59	206739	20.97	ug/L	97
34) ethyl acetate	7.917	45	6530	18.81	ug/L #	76
35) 2,2-dichloropropane	8.001	77	132299	23.17	ug/L	99
36) cis-1,2-dichloroethene	7.964	96	62833	21.18	ug/L	95
37) propionitrile	7.943	54	67293	216.85	ug/L	97
38) methyl acrylate	8.006	85	7283	24.37	ug/L #	40
39) methacrylonitrile	8.132	67	16129	20.05	ug/L	89
40) bromochloromethane	8.231	128	34051	21.91	ug/L	95
41) tetrahydrofuran	8.268	72	5986	21.57	ug/L #	85
42) chloroform	8.304	83	112183	21.76	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105453.d
Acq On : 12 Jul 2021 8:44 am
Operator : EddieH
Sample : CC4538-20 Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:14:56 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.346	59	64790	23.40	ug/L		95
45) 1,1,1-trichloroethane	8.566	97	141068	22.96	ug/L		99
46) cyclohexane	8.686	84	104920	19.60	ug/L		96
48) 1,1-dichloropropene	8.712	75	72363	20.88	ug/L		96
49) carbon tetrachloride	8.754	117	129499	23.47	ug/L		97
50) tert-amyl alcohol	8.806	73	15805	112.82	ug/L	#	69
51) isopropyl acetate	8.838	87	9953	21.28	ug/L	#	92
54) n-butyl alcohol	9.350	41	64029	1081.08	ug/L		95
55) 2,2,4-trimethylpentane	9.037	57	217790	21.32	ug/L		97
56) benzene	8.942	78	200181	19.97	ug/L		95
57) tert-amyl methyl ether	9.016	73	203662	21.51	ug/L		98
58) heptane	9.183	57	37759	19.63	ug/L		86
59) 1,2-dichloroethane	8.948	62	84239	23.25	ug/L		92
60) ethyl acrylate	9.596	55	50544	19.94	ug/L		97
61) trichloroethene	9.617	95	56660	21.45	ug/L		96
62) 2-chloroethyl vinyl ether	10.360	63	150337	106.60	ug/L		99
63) methyl methacrylate	9.847	100	10436	20.36	ug/L	#	89
64) methylcyclohexane	9.920	83	118683	19.55	ug/L		96
65) 1,2-dichloropropane	9.879	63	54471	19.49	ug/L		97
66) dibromomethane	9.983	93	35617	22.03	ug/L		91
67) bromodichloromethane	10.130	83	83438	22.96	ug/L		98
68) 2-nitropropane	10.302	41	13888	27.47	ug/L		98
69) epichlorohydrin	10.438	57	25336	113.07	ug/L		88
70) cis-1,3-dichloropropene	10.590	75	92393	22.94	ug/L		98
71) 4-methyl-2-pentanone	10.679	58	83044	86.91	ug/L		91
72) isoamyl alcohol	10.684	70	34339	478.58	ug/L	#	83
75) toluene	10.982	92	131829	19.88	ug/L		98
76) ethyl methacrylate	11.165	69	51061	18.12	ug/L		97
77) trans-1,3-dichloropropene	11.160	75	84921	23.39	ug/L		97
78) 1,1,2-trichloroethane	11.390	83	41566	21.67	ug/L		96
79) tetrachloroethene	11.568	164	58642	21.06	ug/L		97
80) 2-hexanone	11.563	58	70047	86.79	ug/L		95
81) 1,3-dichloropropane	11.578	76	79914	22.07	ug/L		98
82) butyl acetate	11.657	56	31543	20.34	ug/L	#	75
83) dibromochloromethane	11.840	129	74606	23.95	ug/L		99
84) 1,2-dibromoethane	12.007	107	54650	21.49	ug/L		98
85) n-butyl ether	12.504	57	262450	20.09	ug/L		97
86) chlorobenzene	12.530	112	171318	21.91	ug/L		100
87) 1,1,1,2-tetrachloroethane	12.598	131	84216	21.70	ug/L		95
88) ethylbenzene	12.598	91	296063	21.22	ug/L		99
89) m,p-xylene	12.734	106	230144	42.79	ug/L		99
90) o-xylene	13.168	91	261376	20.91	ug/L		100
91) styrene	13.179	104	165935	20.96	ug/L		95
92) butyl acrylate	12.985	55	103841	19.54	ug/L		98
93) isopropylbenzene	13.550	105	351789	20.82	ug/L		99
94) bromoform	13.419	173	62942	25.74	ug/L		97
95) cis-1,4-dichloro-2-butene	13.571	88	13632	19.24	ug/L		92
98) 1,1,2,2-tetrachloroethane	13.838	83	81136	19.66	ug/L		96
99) trans-1,4-dichloro-2-b...	13.880	53	10013	15.20	ug/L		84
100) 1,2,3-trichloropropane	13.932	110	23457	21.26	ug/L		99
101) bromobenzene	13.969	156	99107	20.53	ug/L		99
102) n-propylbenzene	14.010	91	406410	19.54	ug/L		99
103) 2-chlorotoluene	14.152	126	88976	19.97	ug/L		98
104) 4-chlorotoluene	14.277	91	244742	20.81	ug/L		99
105) 1,3,5-trimethylbenzene	14.188	105	311846	19.57	ug/L		98
106) tert-butylbenzene	14.560	119	245546	19.15	ug/L		96
107) 1,2,4-trimethylbenzene	14.617	105	331422	20.07	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105453.d
Acq On : 12 Jul 2021 8:44 am
Operator : EddieH
Sample : CC4538-20 Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 22:14:56 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:39:51 2021
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	14.805	105	412652	19.82	ug/L	99
109) p-isopropyltoluene	14.952	119	374139	19.97	ug/L	99
110) 1,3-dichlorobenzene	14.989	146	198624	21.21	ug/L	96
111) 1,2,3-trimethylbenzene	15.093	105	360353	20.73	ug/L	99
112) 1,4-dichlorobenzene	15.093	146	201418	20.74	ug/L	97
113) 1,2-dichlorobenzene	15.506	146	212528	21.26	ug/L	98
114) benzyl chloride	15.187	91	214805	24.37	ug/L	97
115) n-butylbenzene	15.407	92	190328	20.89	ug/L	98
116) hexachloroethane	15.841	201	64994	20.04	ug/L	99
117) 1,2-dibromo-3-chloropr...	16.338	157	28770	22.78	ug/L	99
118) 1,3,5-trichlorobenzene	16.563	180	214564	22.62	ug/L	97
119) 1,2,4-trichlorobenzene	17.243	180	197565	21.71	ug/L	98
120) hexachlorobutadiene	17.368	225	98827	22.74	ug/L	97
121) naphthalene	17.541	128	350328	19.93	ug/L	97
122) 1,2,3-trichlorobenzene	17.771	180	172013	21.30	ug/L	97
123) 2-methylnaphthalene	18.786	142	83661	8.00	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568-rush\
Data File : 4b105453.d
Acq On : 12 Jul 2021 8:44 am
Operator : EddieH
Sample : CC4538-20 Inst : MS4B
Misc : MS52080,V4B4568,W,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
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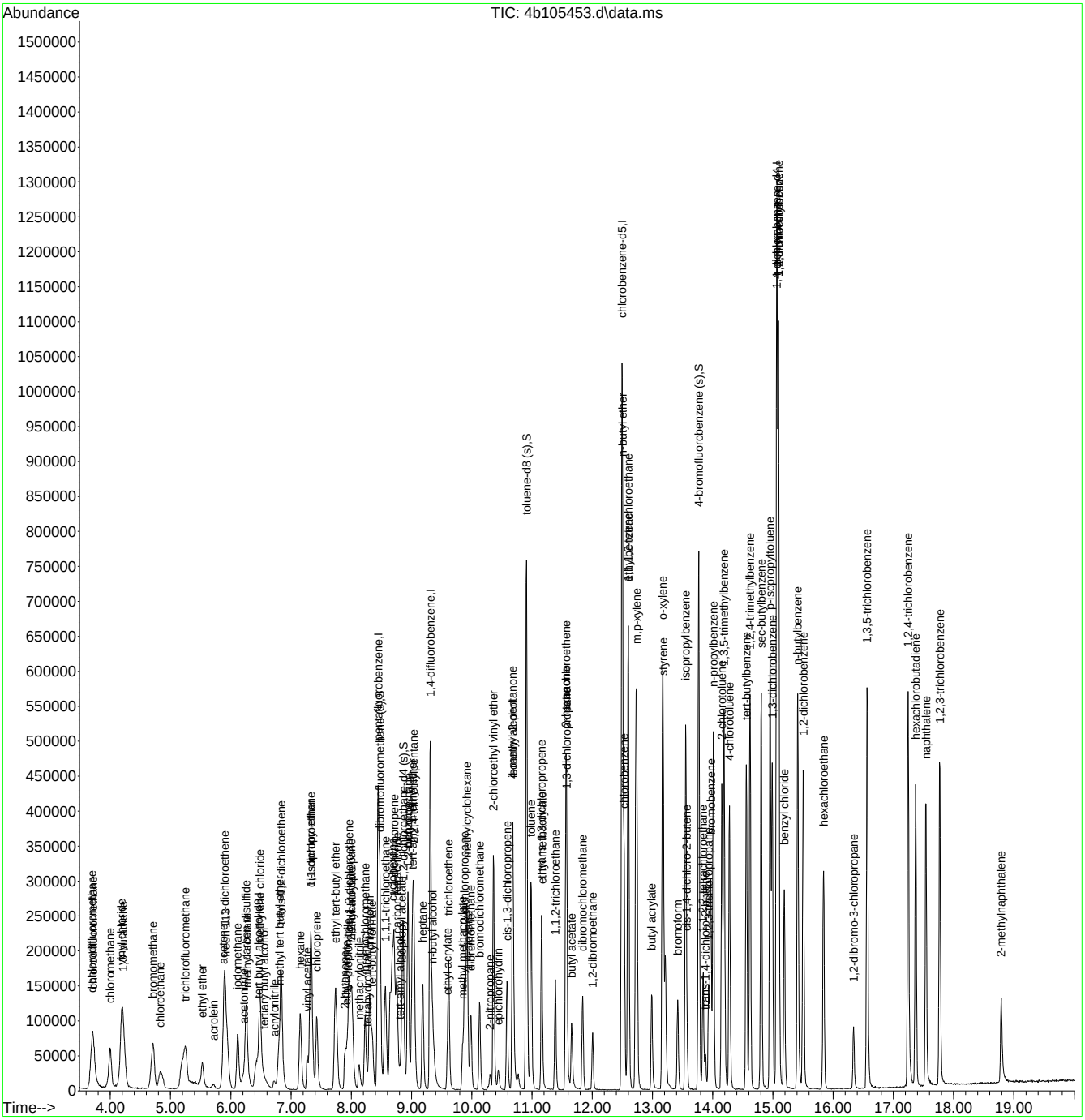
QLast Update : Tue Jun 22 17:39:51 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105476.d
Acq On : 12 Jul 2021 7:40 pm
Operator : EddieH
Sample : ecc4538-50 Inst : MS4B
Misc : MS52035,V4B4568,W,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 23:00:30 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.474	65	158836	500.00	ug/L	0.00
5) pentafluorobenzene	8.446	168	359281	50.00	ug/L	0.00
52) 1,4-difluorobenzene	9.309	114	457348	50.00	ug/L	0.00
73) chlorobenzene-d5	12.494	117	473172	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	15.062	152	360983	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	8.472	113	166316	52.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.36%			
53) 1,2-dichloroethane-d4 (s)	8.859	65	177713	54.44	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.88%			
74) toluene-d8 (s)	10.909	98	550974	47.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.60%			
97) 4-bromofluorobenzene (s)	13.765	95	244771	46.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.34%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.531	59	95321	293.71	ug/L	94
4) 1,4-dioxane	9.931	88	36450	1245.12	ug/L	82
6) chlorodifluoromethane	3.712	51	256063	45.71	ug/L	96
7) dichlorodifluoromethane	3.702	85	401802	55.77	ug/L	96
8) chloromethane	3.995	50	306726	45.57	ug/L	98
9) vinyl chloride	4.188	62	297834	47.82	ug/L	97
10) 1,3-butadiene	4.204	54	212273	48.08	ug/L	97
11) bromomethane	4.706	94	224505	50.15	ug/L	98
12) chloroethane	4.837	64	133753	48.55	ug/L	97
13) trichlorofluoromethane	5.239	101	422719	62.50	ug/L	98
14) ethyl ether	5.532	74	58593	50.74	ug/L	95
15) acrolein	5.700	56	21609	48.52	ug/L	88
16) freon 113	5.930	151	189488	51.63	ug/L	96
17) 1,1-dichloroethene	5.893	61	235955	51.99	ug/L	97
18) acetone	5.872	58	43260	211.17	ug/L #	84
19) acetonitrile	6.212	41	174366	487.16	ug/L	90
20) iodomethane	6.113	142	333715	49.39	ug/L	95
21) carbon disulfide	6.254	76	536138	46.21	ug/L	99
22) methylene chloride	6.484	84	166665	52.72	ug/L	99
23) methyl acetate	6.265	43	92355	50.74	ug/L	95
24) methyl tert butyl ether	6.808	73	450409	54.24	ug/L	98
25) trans-1,2-dichloroethene	6.835	61	217457	51.89	ug/L	95
26) hexane	7.154	56	96184	43.46	ug/L	96
27) di-isopropyl ether	7.332	45	541471	48.76	ug/L	98
28) 2-butanone	7.886	72	50455	259.21	ug/L #	61
29) 1,1-dichloroethane	7.326	63	272362	54.39	ug/L	99
30) chloroprene	7.426	53	209937	54.95	ug/L	93
31) acrylonitrile	6.709	53	45118	56.52	ug/L	85
32) vinyl acetate	7.264	86	21606	57.58	ug/L	97
33) ethyl tert-butyl ether	7.739	59	545276	54.78	ug/L	96
34) ethyl acetate	7.907	45	17466	49.84	ug/L #	79
35) 2,2-dichloropropane	8.006	77	280119	48.60	ug/L	98
36) cis-1,2-dichloroethene	7.959	96	160623	53.62	ug/L	100
37) propionitrile	7.933	54	165465	528.18	ug/L	96
38) methyl acrylate	7.991	85	18263	57.97	ug/L #	71
39) methacrylonitrile	8.127	67	43667	53.78	ug/L	95
40) bromochloromethane	8.226	128	93392	59.53	ug/L	94
41) tetrahydrofuran	8.257	72	16199	57.82	ug/L	89
42) chloroform	8.304	83	295124	56.71	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105476.d
Acq On : 12 Jul 2021 7:40 pm
Operator : EddieH
Sample : ecc4538-50 Inst : MS4B
Misc : MS52035,V4B4568,W,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 23:00:30 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tert-butyl formate	8.341	59	165213	59.10	ug/L		96
45) 1,1,1-trichloroethane	8.566	97	364142	58.70	ug/L		99
46) cyclohexane	8.686	84	274945	50.88	ug/L		96
48) 1,1-dichloropropene	8.712	75	189754	54.22	ug/L		99
49) carbon tetrachloride	8.754	117	342660	61.51	ug/L		97
50) tert-amyl alcohol	8.806	73	35353	249.99	ug/L	#	75
51) isopropyl acetate	8.838	87	26866	56.90	ug/L	#	83
54) n-butyl alcohol	9.340	41	134559	2207.04	ug/L		98
55) 2,2,4-trimethylpentane	9.042	57	591890	56.29	ug/L		97
56) benzene	8.937	78	533056	51.66	ug/L		98
57) tert-amyl methyl ether	9.016	73	541920	55.61	ug/L		98
58) heptane	9.183	57	91939	46.44	ug/L		94
59) 1,2-dichloroethane	8.942	62	213815	57.34	ug/L		93
60) ethyl acrylate	9.586	55	143654	55.06	ug/L		98
61) trichloroethene	9.612	95	148696	54.68	ug/L		93
62) 2-chloroethyl vinyl ether	10.360	63	400508	275.87	ug/L		99
63) methyl methacrylate	9.842	100	30706	58.20	ug/L		92
64) methylcyclohexane	9.920	83	312733	50.05	ug/L		96
65) 1,2-dichloropropane	9.879	63	143282	49.81	ug/L		100
66) dibromomethane	9.983	93	97399	58.51	ug/L		96
67) bromodichloromethane	10.130	83	222129	59.37	ug/L		99
68) 2-nitropropane	10.302	41	35571	68.36	ug/L		96
69) epichlorohydrin	10.438	57	60613	262.77	ug/L		98
70) cis-1,3-dichloropropene	10.585	75	232166	55.99	ug/L		99
71) 4-methyl-2-pentanone	10.679	58	213223	216.76	ug/L		96
72) isoamyl alcohol	10.679	70	78975	1069.23	ug/L		95
75) toluene	10.982	92	352136	51.60	ug/L		99
76) ethyl methacrylate	11.160	69	154182	53.17	ug/L		96
77) trans-1,3-dichloropropene	11.155	75	220730	59.08	ug/L		95
78) 1,1,2-trichloroethane	11.385	83	110058	55.76	ug/L		96
79) tetrachloroethene	11.568	164	151461	52.85	ug/L		94
80) 2-hexanone	11.558	58	185623	223.47	ug/L		94
81) 1,3-dichloropropane	11.573	76	204799	54.95	ug/L		98
82) butyl acetate	11.657	56	86426	54.14	ug/L		88
83) dibromochloromethane	11.840	129	197389	61.57	ug/L		98
84) 1,2-dibromoethane	12.007	107	146729	56.07	ug/L		99
85) n-butyl ether	12.499	57	694864	51.67	ug/L		98
86) chlorobenzene	12.525	112	441677	54.88	ug/L		97
87) 1,1,1,2-tetrachloroethane	12.593	131	231079	57.85	ug/L		96
88) ethylbenzene	12.598	91	771416	53.73	ug/L		99
89) m,p-xylene	12.734	106	602932	108.91	ug/L		98
90) o-xylene	13.163	91	714638	55.55	ug/L		96
91) styrene	13.179	104	474569	58.25	ug/L		99
92) butyl acrylate	12.980	55	302776	55.36	ug/L		98
93) isopropylbenzene	13.550	105	961015	55.26	ug/L		100
94) bromoform	13.420	173	167444	66.52	ug/L		98
95) cis-1,4-dichloro-2-butene	13.571	88	35548	46.10	ug/L		98
98) 1,1,2,2-tetrachloroethane	13.838	83	216156	50.74	ug/L		96
99) trans-1,4-dichloro-2-b...	13.875	53	27760	37.64	ug/L		96
100) 1,2,3-trichloropropane	13.932	110	62168	54.57	ug/L		99
101) bromobenzene	13.963	156	261555	52.47	ug/L		95
102) n-propylbenzene	14.011	91	1081689	50.38	ug/L		100
103) 2-chlorotoluene	14.152	126	236730	51.47	ug/L		95
104) 4-chlorotoluene	14.277	91	647785	53.34	ug/L		98
105) 1,3,5-trimethylbenzene	14.188	105	834978	50.75	ug/L		99
106) tert-butylbenzene	14.560	119	688418	51.99	ug/L		97
107) 1,2,4-trimethylbenzene	14.617	105	879050	51.56	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105476.d
Acq On : 12 Jul 2021 7:40 pm
Operator : EddieH
Sample : ecc4538-50 Inst : MS4B
Misc : MS52035,V4B4568,W,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 23:00:30 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration

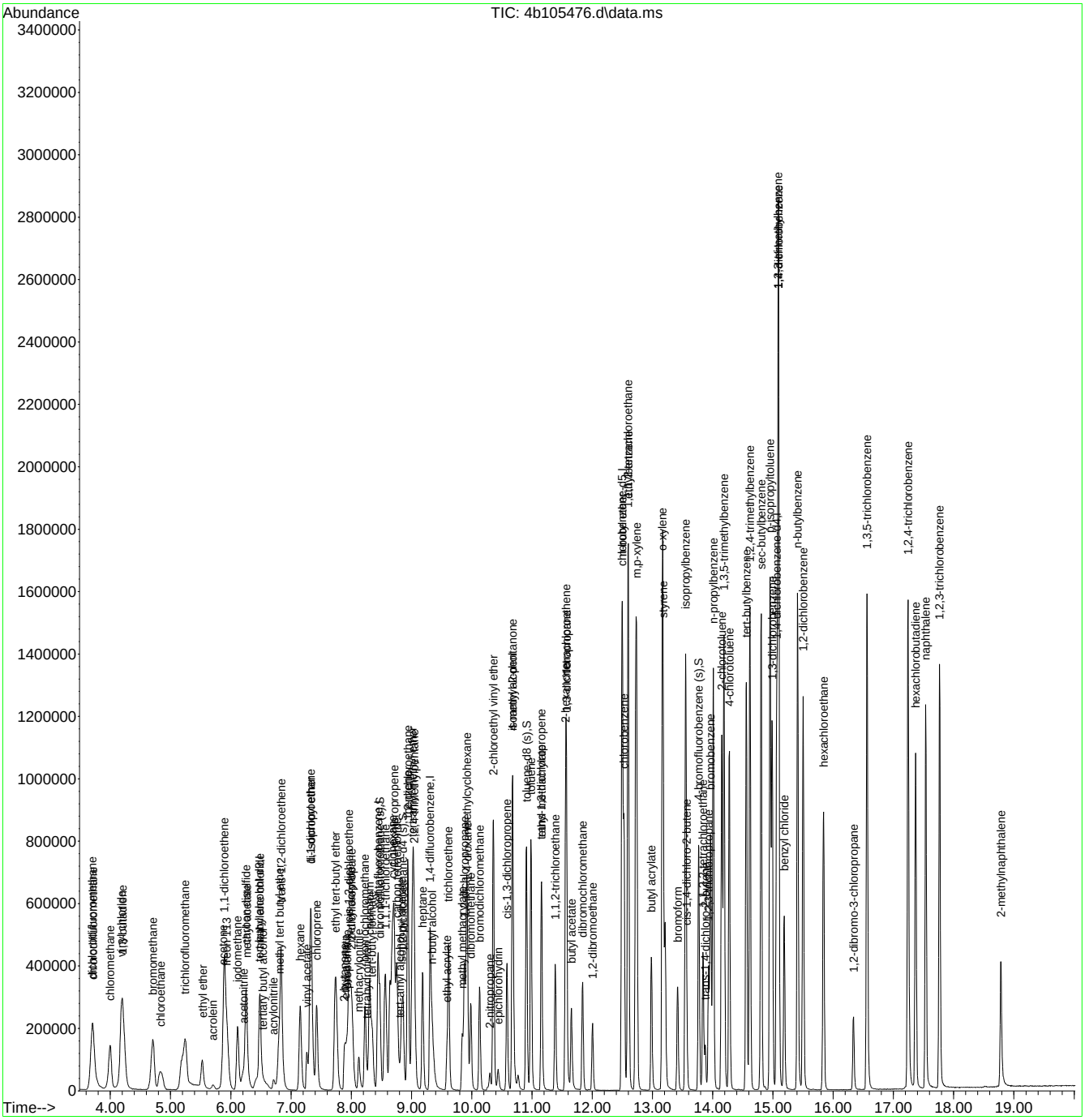
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) sec-butylbenzene	14.806	105	1116746	51.95	ug/L	100
109) p-isopropyltoluene	14.952	119	1009365	52.17	ug/L	100
110) 1,3-dichlorobenzene	14.989	146	525362	54.32	ug/L	98
111) 1,2,3-trimethylbenzene	15.088	105	975306	54.34	ug/L	99
112) 1,4-dichlorobenzene	15.093	146	530636	52.93	ug/L	100
113) 1,2-dichlorobenzene	15.501	146	561055	54.36	ug/L	100
114) benzyl chloride	15.187	91	420816	46.24	ug/L	99
115) n-butylbenzene	15.407	92	507533	53.94	ug/L	99
116) hexachloroethane	15.841	201	188265	51.65	ug/L	95
117) 1,2-dibromo-3-chloropr...	16.338	157	78715	60.37	ug/L	98
118) 1,3,5-trichlorobenzene	16.563	180	579246	59.15	ug/L	97
119) 1,2,4-trichlorobenzene	17.243	180	544558	57.97	ug/L	99
120) hexachlorobutadiene	17.368	225	251689	56.10	ug/L	98
121) naphthalene	17.536	128	1008004	55.54	ug/L	99
122) 1,2,3-trichlorobenzene	17.766	180	492295	59.06	ug/L	99
123) 2-methylnaphthalene	18.786	142	261748	24.24	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-13-2021\v4b4568 hw\
Data File : 4b105476.d
Acq On : 12 Jul 2021 7:40 pm
Operator : EddieH
Sample : ecc4538-50 Inst : MS4B
Misc : MS52035,V4B4568,W,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B4538.M
Quant Results File: M4B4538.RES
Quant Time: Jul 12 23:00:30 2021
Quant Title : SW846 8260C/D, Rxi624.1 Sil MS 60m x 0.25mm x 1.4uTue Jun 22 17:13:13 2021
QLast Update : Tue Jun 22 17:13:13 2021
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standard	ABK: V021-2718-2.60	EC: V021-2718-35.11	AA: V021-2718-23.7	Ext. PA: V021-2718-39.2	Column	Rxi-624(60mx0.25mmx1.4um)
Standard Concentration	100-10,000ppm	100ppm	100ppm	100-1,000ppm	Method	V8260D
Expiration Date	6/21/2021	6/22/2021	7/8/2021	7/16/2021	Init Calib Date	6/16/2021
Standard	Ext. ABK: V021-2718-7.7	Ext. EC: V021-2718-35.11	Ext. Acrolein: V021-2718-28.3	Ext. Chlorodifluoromethane:		
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Analysis Date	6/16/2021
Expiration Date	6/26/2021	6/22/2021	7/16/2021	6/27/2021	Sequence loaded by	Bridget Kelly
					Data processed by	Bridget Kelly
					Batch ID	V4B4538
Internal Surrogate	V021-2718-25				Matrix	AQ
Internal Surrogate Concentration	250/2500ppm				Approved By:	KANYAV
Expiration Date	7/9/2021		Initial Calibration Method	V4B4538	Approved Date:	6/18/2021 2:31:49 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
4B	104804	IB		NA			5			1	ok	
4B	104805	BFB		NA			5			2	ok	
4B	104806	IC4535-0.2		NA		Initial Calibration	5			3	ok	1uL ABK, EC, AA/500mL DI H2O.
4B	104807	IC4535-0.5		NA		Initial Calibration	5			4	ok	1uL ABK, EC, AA/200mL DI H2O.
4B	104808	IC4535-1		NA		Initial Calibration	5			5	ok	1uL ABK, EC, AA/100mL DI H2O.
4B	104809	IC4535-2		NA		Initial Calibration	5			6	ok	2uL ABK, EC, AA/100mL DI H2O.
4B	104810	IC4535-4		NA		Initial Calibration	5			7	ok	4uL ABK, EC, AA/100mL DI H2O.
4B	104811	IC4535-8		NA		Initial Calibration	5			8	ok	8uL ABK, EC, AA/100mL DI H2O.
4B	104812	IC4535-20		NA		Initial Calibration	5			9	ok	20uL ABK, EC, AA/100mL DI H2O.
4B	104813	ICC4535-50		NA		Initial Calibration	5			10	ok	50uL ABK, EC, AA/100mL DI H2O.
4B	104814	IC4535-100		NA		Initial Calibration	5			11	ok	100uL ABK, EC, AA/100mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
4B	104815	IC4535-200		NA		Initial Calibration	5			12	ok	200uL ABK, EC, AA/100mL DI H2O.
4B	104816	IB		NA			5			13	ok	
4B	104817	IB		NA			5			14	ok	
4B	104818	ICV4535-50		NA		Initial Calibration	5			15	ok	50uL Ext. ABK, EC, Acrolein/100mL DI H2O.
4B	104819	ICV4535-50		NA		Initial Calibration	5			16	ok	50uL Ext. PA, Chlorodifluoromethane/100mL DI H2O.
4B	104820	IB		NA			5			17	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4 um)
Standard	ABK: V021-2718-47.61	EC: V021-2718-65.8	AA: V021-2718-70.7		Method	V8260D
Standard Concentration	100-10,000ppm	100ppm	100ppm		Initial Calibration Date	6/16/2021
Expiration Date	7/23/2021	7/14/2021	8/8/2021			
Internal Surrogate	V021-2718-56					
I/S Concentration	250/2,500ppm				Analysis Date	7/9/2021
Expiration Date	7/29/2021				Sequence loaded by	Eddie Huang
					Data processed by	kristelv
					Batch ID	V4B4567
Rough reviewed by:	Eddie Huang (7/11/2021)				Matrix	AQ
					Approved By:	MOHUI
pH paper Lot# (wide range):	223120	Exp. 8/15/2023	Initial Calibration Method	M4B4538	Approved Date:	7/12/2021 1:24:56 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
4B	105427	BFB/CC4538-50		NA			5			28	OK/OK	50uLABK,EC,AA/100mL DI H2O. 8:53pm, 7/9/2021. #13,28,83,94,117,119,122 high.
4B	105428	CC4538-1		NA			5			29	not need	1uLABK,EC,AA/100mL DI H2O.
4B	105429	BS		NA			5			30	OK	50uLABK,EC,AA/100mL DI H2O.
4B	105430	IB		NA			5			31	OK	
4B	105431	MB		NA			5			32	OK	
4B	105432	JD27695-8	5	NA	MS52079	V8260TCL42	5		1	33	OK	
4B	105433	JD27695-8MS	1	NA	MS52079	V8260TCL42	5		1	34	OK	20uLABK,EC,AA/40mL sample.
4B	105434	JD27695-8MSD	2	NA	MS52079	V8260TCL42	5		1	35	OK	20uLABK,EC,AA/40mL sample.
4B	105435	IB		NA			5			36	OK	
4B	105436	JD27695-9	1	NA	MS52079	V8260TCL42	5		1	37	OK	Double checked client ID. Client vial.
4B	105437	JD27695-10	1	NA	MS52079	V8260TCL42	5		1	38	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
4B	105438	JD27698-1	1	NA	MS52080	V8260TCL20+	5		1	39	OK	
4B	105439	JD27698-2	1	NA	MS52080	V8260TCL20+	5		1	40	OK	
4B	105440	JD27698-3	1	NA	MS52080	V8260TCL20+	5		1	41	OK	
4B	105441	JD27698-4	1	NA	MS52080	V8260TCL20+	5		1	42	OK	
4B	105442	JD27698-5	1	NA	MS52080	V8260TCL20+	5		1	43	OK	
4B	105443	JD27695-1	1	NA	MS52079	V8260TCL42	5		1	44	OK	
4B	105444	JD27695-2	1	NA	MS52079	V8260TCL42	5		1	45	OK	
4B	105445	JD27695-3	1	NA	MS52079	V8260TCL42	5		1	46	OK	
4B	105446	JD27695-4	1	NA	MS52079	V8260TCL42	5		1	47	OK	
4B	105447	JD27695-5	1	NA	MS52079	V8260TCL42	5		1	48	OK	
4B	105448	JD27695-6	1	NA	MS52079	V8260TCL42	5		1	49	RR	RR 1X #83 CC hit.
4B	105449	JD27695-7	1	NA	MS52079	V8260TCL42	5		1	50	OK	
4B	105450	JD27677-9	1	NA	MS52080	V8260NJTCL20+,	5		1	51	OK	TBA. 7:44am, 7/10/2021.

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standard	ABK: V021-2718-47.61	EC: V021-2718-65.8	AA: V021-2718-70.7		Column	Rxi-624(60mx0.25mmx1.4 um)
Standard Concentration	100-10,000ppm	100ppm	100ppm		Method	V8260D
Expiration Date	7/23/2021	7/14/2021	8/8/2021		Initial Calibration Date	6/16/2021
Internal Surrogate	V021-2718-56					
I/S Concentration	250/2,500ppm				Analysis Date	7/12/2021
Expiration Date	7/29/2021				Sequence loaded by	Eddie Huang
					Data processed by	janellec
					Batch ID	V4B4568
Rough reviewed by:	Eddie Huang (7/13/2021)				Matrix	AQ
					Approved By:	MEI
pH paper Lot# (wide range):	223120	Exp. 8/15/2023	Initial Calibration Method	M4B4538	Approved Date:	7/13/2021 10:03:07 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
4B	105451	IB		NA			5			1	ok	
4B	105452	IB		NA			5			2	ok	
4B	105453	BFB/CC4538-20		NA			5			3	ok/ok	20uLABK,EC,AA/100mL DI H2O. 8:44am, 7/12/2021. #13,28,94 high.
4B	105454	CC4538-1		NA			5			4	not need	1uLABK,EC,AA/100mL DI H2O.
4B	105455	BS		NA			5			5	ok	50uLABK,EC,AA/100mL DI H2O.
4B	105456	IB		NA			5			6	ok	
4B	105457	MB		NA			5			7	ok	
4B	105458	JD27695-6	2	NA	MS52079	V8260TCL42	5		1	8	ok	
4B	105459	JD27663-1	4	NA	MS52082	V8260MASTD	5		1	9	ok	
4B	105460	JD27656-8	2	NA	MS52082	V8260MASTD	5		1	10	ok	
4B	105461	JD27663-3	4	NA	MS52082	V8260MASTD	5		1	11	ok/DL	+4B105426.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
4B	105462	JD27524-1	1	NA	MS51987	V8260SL	5		1	12	ok	DOD-QSM5.
4B	105463	JD27524-3	1	NA	MS51987	V8260SL	5		1	13	ok	DOD-QSM5.
4B	105464	JD27524-4	2	NA	MS51987	V8260SL	5		1	14	ok	DOD-QSM5.
4B	105465	JD27524-20	1	NA	MS51987	V8260SL	5		1	15	ok	DOD-QSM5.
4B	105466	JD27524-1MS	2	NA	MS51987	V8260SL	5		1	16	ok	DOD-QSM5. 20uLABK,EC,AA/40mL sample.
4B	105467	JD27524-1MSD	3	NA	MS51987	V8260SL	5		1	17	ok	DOD-QSM5. 20uLABK,EC,AA/40mL sample.
4B	105468	IB		NA			5			18	ok	
4B	105469	JD27611-10	9	NA	MS52035	V8260TCL20,HEPT,	5		1	19	ok	14DIOXANE.
4B	105470	JD27611-2	7	NA	MS52035	V8260TCL20,	5		1	20	ok	14DIOXANE.
4B	105471	JD27611-9	2	NA	MS52035	V8260TCL20,	5		1	21	ok	14DIOXANE.
4B	105472	JD27611-5	10	NA	MS52035	V8260TCL20,HEPT,	5		1	22	ok	14DIOXANE.
4B	105473	JD27611-6	6	NA	MS52035	V8260TCL20,	5		1	23	ok	14DIOXANE.
4B	105474	JD27611-7	6	NA	MS52035	V8260TCL20,	5		1	24	ok	14DIOXANE.
4B	105475	JD27611-8	7	NA	MS52035	V8260TCL20,	5		1	25	ok	14DIOXANE.
4B	105476	ECC4538-50		NA			5			26	ok	50uLABK,EC,AA/100mL DI H2O. 7:40pm, 7/12/2021.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/TASK 05

SGS Job Number: JD28016

Sampling Date: 07/08/21

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 176

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD28016

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 05

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JD28016-1	07/08/21	13:20	NW	07/10/21	AQ	Water	BD24SEEP 070821
JD28016-2	07/08/21	12:00	NW	07/10/21	AQ	Water	BD070821
JD28016-3	07/08/21	13:40	NW	07/10/21	AQ	Water	OPEN DITCH 001 070821
JD28016-4	07/08/21	14:00	NW	07/10/21	AQ	Water	BYPASS 070821
JD28016-5	07/08/21	14:20	NW	07/10/21	AQ	Water	WBSEEPS 070821
JD28016-6	07/08/21	14:45	NW	07/10/21	AQ	Water	OUTFALL 001 070821
JD28016-7	07/08/21	15:00	NW	07/10/21	AQ	Water	WOODEN SLUICE 070821
JD28016-8	07/08/21	15:30	NW	07/10/21	AQ	Water	RWSEEPS 070821
JD28016-8D	07/08/21	15:30	NW	07/10/21	AQ	Water Dup/MSD	RWSEEPS 070821-MSD
JD28016-8S	07/08/21	15:30	NW	07/10/21	AQ	Water Matrix Spike	RWSEEPS 070821-MS
JD28016-9	07/08/21	16:00	NW	07/10/21	AQ	Equipment Blank	EQ BLANK
JD28016-10	07/08/21	16:00	NW	07/10/21	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD28016
Site:	Emersub 15, LLC, Ithaca, NY	**Report Date**	7/19/2021 10:51:06 A

On 07/10/2021, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD28016 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V3D7090

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD28016-8MS, JD28016-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD28016
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 07/08/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD28016-1	**BD24SEEP 070821**					
cis-1,2-Dichloroethene		1.7	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		11.6	1.0	0.53	ug/l	SW846 8260D
JD28016-2	**BD070821**					
cis-1,2-Dichloroethene		1.9	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		11.4	1.0	0.53	ug/l	SW846 8260D
JD28016-3	**OPEN DITCH 001 070821**					
Chloroform		0.52 J	1.0	0.50	ug/l	SW846 8260D
JD28016-4	**BYPASS 070821**					
cis-1,2-Dichloroethene		0.74 J	1.0	0.51	ug/l	SW846 8260D
JD28016-5	**WBSEEPS 070821**					
cis-1,2-Dichloroethene		135	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene		1.3	1.0	0.54	ug/l	SW846 8260D
Trichloroethene		16.6	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		13.6	1.0	0.79	ug/l	SW846 8260D
JD28016-6	**OUTFALL 001 070821**					
Bromodichloromethane		1.9	1.0	0.45	ug/l	SW846 8260D
Chloroform		9.5	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		0.66 J	1.0	0.51	ug/l	SW846 8260D
JD28016-7	**WOODEN SLUICE 070821**					
Bromodichloromethane		1.2	1.0	0.45	ug/l	SW846 8260D
Chloroform		5.1	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		3.8	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		1.7	1.0	0.53	ug/l	SW846 8260D
JD28016-8	**RWSEEPS 070821**					
cis-1,2-Dichloroethene		2.6	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		1.8	1.0	0.79	ug/l	SW846 8260D

Summary of Hits

Job Number: JD28016
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 07/08/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

JD28016-9 **EQ BLANK**

No hits reported in this sample.

JD28016-10 **TRIP BLANK**

No hits reported in this sample.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	BD24SEEP 070821		
Lab Sample ID:	JD28016-1	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166761.D	1	07/15/21 03:39	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.7	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24SEEP 070821		
Lab Sample ID:	JD28016-1	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	11.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	100%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BD070821		
Lab Sample ID:	JD28016-2	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166762.D	1	07/15/21 04:04	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.9	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD070821		
Lab Sample ID:	JD28016-2	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	11.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		85-118%
17060-07-0	1,2-Dichloroethane-D4	100%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	OPEN DITCH 001 070821		
Lab Sample ID:	JD28016-3	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166763.D	1	07/15/21 04:29	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.52	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 070821		
Lab Sample ID:	JD28016-3	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		85-118%
17060-07-0	1,2-Dichloroethane-D4	102%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BYPASS 070821		
Lab Sample ID:	JD28016-4	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166764.D	1	07/15/21 04:53	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.74	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 070821		
Lab Sample ID:	JD28016-4	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	99%		80-121%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WBSEEPS 070821		
Lab Sample ID:	JD28016-5	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166765.D	1	07/15/21 05:18	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	135	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.3	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WBSEEPS 070821		
Lab Sample ID:	JD28016-5	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	16.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	13.6	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		85-118%
17060-07-0	1,2-Dichloroethane-D4	98%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	OUTFALL 001 070821		
Lab Sample ID:	JD28016-6	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166766.D	1	07/15/21 05:43	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.9	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	9.5	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.66	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 070821		
Lab Sample ID:	JD28016-6	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		85-118%
17060-07-0	1,2-Dichloroethane-D4	100%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	WOODEN SLUICE 070821		
Lab Sample ID:	JD28016-7	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166767.D	1	07/15/21 06:08	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.2	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	5.1	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 070821		
Lab Sample ID:	JD28016-7	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	1.7	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

ND = Not detected MDL = Method Detection Limit
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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	RWSEEPS 070821		
Lab Sample ID:	JD28016-8	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166751.D	1	07/14/21 23:30	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RWSEEPS 070821		
Lab Sample ID:	JD28016-8	**Date Sampled:**	07/08/21
Matrix:	AQ - Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	1.8	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		85-118%
17060-07-0	1,2-Dichloroethane-D4	97%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EQ BLANK		
Lab Sample ID:	JD28016-9	**Date Sampled:**	07/08/21
Matrix:	AQ - Equipment Blank	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166755.D	1	07/15/21 01:10	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQ BLANK		
Lab Sample ID:	JD28016-9	**Date Sampled:**	07/08/21
Matrix:	AQ - Equipment Blank	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		85-118%
17060-07-0	1,2-Dichloroethane-D4	98%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD28016-10	**Date Sampled:**	07/08/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D166756.D	1	07/15/21 01:35	BK	n/a	n/a	V3D7090
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD28016-10	**Date Sampled:**	07/08/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		85-118%
17060-07-0	1,2-Dichloroethane-D4	97%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

WW WEB WTB

wsp

Chain of Custody Form

TM-062921-153

Page ___ of ___

WSP Office Address	7000 East Genesee Street, Building D, 2nd Floor
Project Name	Emersub 15, LLC
WSP Contact Name	Nathaniel Winston
Project Location	Ithaca, NY
WSP Contact E-mail	DAVE.BYKAZEWSKI@wsp.com
Project Number & Task	31401545.001/Task 05
WSP Contact Phone	412-375-0282
Sampler(s) Name(s)	Nathaniel Winston
Sampler(s) Signature(s)	
Requested Analyses & Preservatives	4060 TCL 42
No.	JD28016
Laboratory Name & Location	SGS NS
Laboratory Project Manager	TAMMY McCloskey
Requested Turn-Around-Time	☒ Standard 5-day ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	4060 TCL 42	Sample Comments
1	BD24SEEP070821	AQ			07/08/21	1300	3	X	
2	BD070821					1200	3	X	
3	OPENDITCH001070821					1340	3	X	
4	BYPASS 070821					1400	3	X	
5	WBSEEPS 070821					1420	3	X	
6	OUTFALL 001 070821					1445	3	X	★ Non QC vials - 7/16/21
7	WOODEN SLUICE 070821					1500	3	X	
8	BWSEEPS 070821-MS/MSD					1530	9	X	RUN MS/MSD
9	EQ BLANK					1600	3	X	
10	TRIP BLANK					~~1700~~	2	X	

V1085

INITIAL ASSESSMENT JG

LABEL VERIFICATION ___

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	7/16/21	1530	FEDEX			Fedex	9251 0904 2066
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
FEDEX	7/16/21	10:30				(	___

*Use stop time/date for composite and/or air samples; use only start time/~~date~~ for all other samples

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

2.7°C IP FR-4

JD28016: Chain of Custody

Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD28016 **Client:** WSP **Project:** EPT, ITHACA, NY

Date / Time Received: 7/10/2021 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (2.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD28016: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD28016

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD28016-1 Collected: 08-JUL-21 13:20 By: NW BD24SEEP 070821			Received: 10-JUL-21 By: DG			
JD28016-1	SW846 8260D	15-JUL-21 03:39	BK			V8260TCL42
JD28016-2 Collected: 08-JUL-21 12:00 By: NW BD070821			Received: 10-JUL-21 By: DG			
JD28016-2	SW846 8260D	15-JUL-21 04:04	BK			V8260TCL42
JD28016-3 Collected: 08-JUL-21 13:40 By: NW OPEN DITCH 001 070821			Received: 10-JUL-21 By: DG			
JD28016-3	SW846 8260D	15-JUL-21 04:29	BK			V8260TCL42
JD28016-4 Collected: 08-JUL-21 14:00 By: NW BYPASS 070821			Received: 10-JUL-21 By: DG			
JD28016-4	SW846 8260D	15-JUL-21 04:53	BK			V8260TCL42
JD28016-5 Collected: 08-JUL-21 14:20 By: NW WBSEEPS 070821			Received: 10-JUL-21 By: DG			
JD28016-5	SW846 8260D	15-JUL-21 05:18	BK			V8260TCL42
JD28016-6 Collected: 08-JUL-21 14:45 By: NW OUTFALL 001 070821			Received: 10-JUL-21 By: DG			
JD28016-6	SW846 8260D	15-JUL-21 05:43	BK			V8260TCL42
JD28016-7 Collected: 08-JUL-21 15:00 By: NW WOODEN SLUICE 070821			Received: 10-JUL-21 By: DG			
JD28016-7	SW846 8260D	15-JUL-21 06:08	BK			V8260TCL42
JD28016-8 Collected: 08-JUL-21 15:30 By: NW RWSEEPS 070821			Received: 10-JUL-21 By: DG			
JD28016-8	SW846 8260D	14-JUL-21 23:30	BK			V8260TCL42

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD28016

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/TASK 05

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD28016-9	Collected: 08-JUL-21 16:00 By: NW		Received: 10-JUL-21 By: DG			
EQ BLANK						
JD28016-9	SW846 8260D	15-JUL-21 01:10	BK			V8260TCL42
JD28016-10	Collected: 08-JUL-21 16:00 By: NW		Received: 10-JUL-21 By: DG			
TRIP BLANK						
JD28016-10	SW846 8260D	15-JUL-21 01:35	BK			V8260TCL42

SGS Internal Chain of Custody

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Received: 07/10/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD28016-1.2	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-1.2	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-1.2	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-1.2	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-2.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-2.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-2.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-2.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-3.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-3.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-3.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-3.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-4.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-4.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-4.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-4.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-5.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-5.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-5.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-5.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-6.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-6.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-6.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-6.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-7.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-7.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-7.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-7.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-8.4	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-8.4	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-8.4	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-8.4	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-8.5	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-8.5	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-8.5	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-8.5	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage

SGS Internal Chain of Custody

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Received: 07/10/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD28016-8.7	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-8.7	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-8.7	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-8.7	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-9.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-9.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-9.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-9.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage
JD28016-10.1	Secured Storage	Bridget Kelly	07/14/21 16:30	Retrieve from Storage
JD28016-10.1	Bridget Kelly	GCMS3D	07/14/21 16:31	Load on Instrument
JD28016-10.1	GCMS3D	Bridget Kelly	07/15/21 09:09	Unload from Instrument
JD28016-10.1	Bridget Kelly	Secured Storage	07/15/21 09:09	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7090-MB	3D166750.D	1	07/14/21	BK	n/a	n/a	V3D7090

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD28016-1, JD28016-2, JD28016-3, JD28016-4, JD28016-5, JD28016-6, JD28016-7, JD28016-8, JD28016-9, JD28016-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7090-MB	3D166750.D	1	07/14/21	BK	n/a	n/a	V3D7090

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD28016-1, JD28016-2, JD28016-3, JD28016-4, JD28016-5, JD28016-6, JD28016-7, JD28016-8, JD28016-9, JD28016-10

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	85-118%
17060-07-0	1,2-Dichloroethane-D4	100%	80-121%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7090-BS	3D166748.D	1	07/14/21	BK	n/a	n/a	V3D7090

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD28016-1, JD28016-2, JD28016-3, JD28016-4, JD28016-5, JD28016-6, JD28016-7, JD28016-8, JD28016-9, JD28016-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	233	117	63-137
71-43-2	Benzene	50	49.6	99	78-117
75-27-4	Bromodichloromethane	50	49.5	99	83-123
75-25-2	Bromoform	50	47.6	95	80-140
74-83-9	Bromomethane	50	52.4	105	26-167
78-93-3	2-Butanone (MEK)	200	242	121	73-135
75-15-0	Carbon disulfide	50	48.1	96	60-131
56-23-5	Carbon tetrachloride	50	54.0	108	75-127
108-90-7	Chlorobenzene	50	45.6	91	83-115
75-00-3	Chloroethane	50	48.9	98	61-135
67-66-3	Chloroform	50	50.4	101	76-118
74-87-3	Chloromethane	50	47.8	96	46-144
110-82-7	Cyclohexane	50	51.8	104	67-128
96-12-8	1,2-Dibromo-3-chloropropane	50	47.2	94	75-135
124-48-1	Dibromochloromethane	50	47.1	94	84-128
106-93-4	1,2-Dibromoethane	50	48.7	97	82-129
95-50-1	1,2-Dichlorobenzene	50	48.0	96	85-117
541-73-1	1,3-Dichlorobenzene	50	47.7	95	83-116
106-46-7	1,4-Dichlorobenzene	50	45.6	91	82-115
75-71-8	Dichlorodifluoromethane	50	55.7	111	49-153
75-34-3	1,1-Dichloroethane	50	50.2	100	75-122
107-06-2	1,2-Dichloroethane	50	46.6	93	74-116
75-35-4	1,1-Dichloroethene	50	51.9	104	68-129
156-59-2	cis-1,2-Dichloroethene	50	51.8	104	78-120
156-60-5	trans-1,2-Dichloroethene	50	52.4	105	74-125
78-87-5	1,2-Dichloropropane	50	53.7	107	80-120
10061-01-5	cis-1,3-Dichloropropene	50	51.0	102	84-123
10061-02-6	trans-1,3-Dichloropropene	50	47.0	94	84-124
100-41-4	Ethylbenzene	50	44.6	89	80-115
76-13-1	Freon 113	50	55.9	112	66-136
591-78-6	2-Hexanone	200	201	101	74-132
98-82-8	Isopropylbenzene	50	45.5	91	79-120
79-20-9	Methyl Acetate	50	52.5	105	65-133
108-87-2	Methylcyclohexane	50	56.3	113	67-136
1634-04-4	Methyl Tert Butyl Ether	50	54.3	109	77-124
108-10-1	4-Methyl-2-pentanone(MIBK)	200	209	105	77-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D7090-BS	3D166748.D	1	07/14/21	BK	n/a	n/a	V3D7090

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD28016-1, JD28016-2, JD28016-3, JD28016-4, JD28016-5, JD28016-6, JD28016-7, JD28016-8, JD28016-9, JD28016-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	50.6	101	74-125
100-42-5	Styrene	50	46.9	94	83-122
79-34-5	1,1,2,2-Tetrachloroethane	50	48.1	96	78-122
127-18-4	Tetrachloroethene	50	45.7	91	75-125
108-88-3	Toluene	50	43.4	87	80-115
120-82-1	1,2,4-Trichlorobenzene	50	48.8	98	77-137
71-55-6	1,1,1-Trichloroethane	50	53.2	106	77-124
79-00-5	1,1,2-Trichloroethane	50	49.2	98	83-118
79-01-6	Trichloroethene	50	51.8	104	80-123
75-69-4	Trichlorofluoromethane	50	54.7	109	71-134
75-01-4	Vinyl chloride	50	49.9	100	56-138
1330-20-7	Xylene (total)	150	136	91	81-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	85-118%
17060-07-0	1,2-Dichloroethane-D4	96%	80-121%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD28016-8MS	3D166752.D	1	07/14/21	BK	n/a	n/a	V3D7090
JD28016-8MSD	3D166753.D	1	07/15/21	BK	n/a	n/a	V3D7090
JD28016-8	3D166751.D	1	07/14/21	BK	n/a	n/a	V3D7090

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD28016-1, JD28016-2, JD28016-3, JD28016-4, JD28016-5, JD28016-6, JD28016-7, JD28016-8, JD28016-9, JD28016-10

CAS No.	Compound	JD28016-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	157	79	200	164	82	4	52-133/18
71-43-2	Benzene	ND		50	47.3	95	50	48.9	98	3	55-129/11
75-27-4	Bromodichloromethane	ND		50	46.6	93	50	48.2	96	3	74-123/11
75-25-2	Bromoform	ND		50	42.2	84	50	46.0	92	9	69-135/12
74-83-9	Bromomethane	ND		50	55.8	112	50	56.9	114	2	11-167/43
78-93-3	2-Butanone (MEK)	ND		200	192	96	200	207	104	8	64-131/15
75-15-0	Carbon disulfide	ND		50	44.6	89	50	45.2	90	1	54-137/15
56-23-5	Carbon tetrachloride	ND		50	54.2	108	50	54.5	109	1	68-132/11
108-90-7	Chlorobenzene	ND		50	44.0	88	50	46.2	92	5	71-119/10
75-00-3	Chloroethane	ND		50	53.2	106	50	51.2	102	4	50-146/18
67-66-3	Chloroform	ND		50	47.0	94	50	47.0	94	0	67-120/11
74-87-3	Chloromethane	ND		50	52.1	104	50	50.9	102	2	42-146/17
110-82-7	Cyclohexane	ND		50	59.8	120	50	58.1	116	3	56-147/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	41.4	83	50	47.9	96	15	65-130/15
124-48-1	Dibromochloromethane	ND		50	43.2	86	50	47.6	95	10	74-125/10
106-93-4	1,2-Dibromoethane	ND		50	43.8	88	50	47.8	96	9	74-125/9
95-50-1	1,2-Dichlorobenzene	ND		50	45.4	91	50	47.1	94	4	73-117/10
541-73-1	1,3-Dichlorobenzene	ND		50	45.1	90	50	46.9	94	4	73-117/10
106-46-7	1,4-Dichlorobenzene	ND		50	43.6	87	50	45.1	90	3	70-117/10
75-71-8	Dichlorodifluoromethane	ND		50	63.1	126	50	63.2	126	0	46-169/17
75-34-3	1,1-Dichloroethane	ND		50	48.6	97	50	48.0	96	1	66-124/13
107-06-2	1,2-Dichloroethane	ND		50	42.9	86	50	45.1	90	5	66-115/10
75-35-4	1,1-Dichloroethene	ND		50	51.4	103	50	51.3	103	0	60-136/15
156-59-2	cis-1,2-Dichloroethene	2.6		50	52.0	99	50	52.7	100	1	55-133/12
156-60-5	trans-1,2-Dichloroethene	ND		50	51.2	102	50	51.8	104	1	67-127/13
78-87-5	1,2-Dichloropropane	ND		50	49.7	99	50	51.8	104	4	72-120/11
10061-01-5	cis-1,3-Dichloropropene	ND		50	48.1	96	50	49.3	99	2	75-123/12
10061-02-6	trans-1,3-Dichloropropene	ND		50	43.3	87	50	45.9	92	6	73-122/11
100-41-4	Ethylbenzene	ND		50	44.4	89	50	45.7	91	3	44-136/10
76-13-1	Freon 113	ND		50	54.7	109	50	56.2	112	3	61-148/15
591-78-6	2-Hexanone	ND		200	175	88	200	193	97	10	64-129/13
98-82-8	Isopropylbenzene	ND		50	46.0	92	50	47.0	94	2	71-122/11
79-20-9	Methyl Acetate	ND		50	43.3	87	50	45.9	92	6	55-127/17
108-87-2	Methylcyclohexane	ND		50	55.8	112	50	57.5	115	3	58-148/13
1634-04-4	Methyl Tert Butyl Ether	ND		50	49.3	99	50	51.1	102	4	64-122/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	187	94	200	201	101	7	68-128/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD28016-8MS	3D166752.D	1	07/14/21	BK	n/a	n/a	V3D7090
JD28016-8MSD	3D166753.D	1	07/15/21	BK	n/a	n/a	V3D7090
JD28016-8	3D166751.D	1	07/14/21	BK	n/a	n/a	V3D7090

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD28016-1, JD28016-2, JD28016-3, JD28016-4, JD28016-5, JD28016-6, JD28016-7, JD28016-8, JD28016-9, JD28016-10

CAS No.	Compound	JD28016-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		50	46.4	93	50	47.4	95	2	65-126/13
100-42-5	Styrene	ND		50	45.3	91	50	46.5	93	3	73-124/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	44.7	89	50	47.8	96	7	68-120/15
127-18-4	Tetrachloroethene	ND		50	45.3	91	50	47.2	94	4	61-134/11
108-88-3	Toluene	ND		50	43.7	87	50	45.5	91	4	54-130/11
120-82-1	1,2,4-Trichlorobenzene	ND		50	45.6	91	50	50.0	100	9	67-134/14
71-55-6	1,1,1-Trichloroethane	ND		50	52.5	105	50	52.9	106	1	66-130/12
79-00-5	1,1,2-Trichloroethane	ND		50	44.6	89	50	46.9	94	5	73-117/11
79-01-6	Trichloroethene	ND		50	48.9	98	50	50.6	101	3	56-139/11
75-69-4	Trichlorofluoromethane	ND		50	63.7	127	50	62.1	124	3	63-150/16
75-01-4	Vinyl chloride	1.8		50	59.4	115	50	56.4	109	5	48-148/17
1330-20-7	Xylene (total)	ND		150	135	90	150	139	93	3	46-138/10

CAS No.	Surrogate Recoveries	MS	MSD	JD28016-8	Limits
1868-53-7	Dibromofluoromethane	105%	102%	105%	85-118%
17060-07-0	1,2-Dichloroethane-D4	93%	94%	97%	80-121%
2037-26-5	Toluene-D8	97%	96%	99%	80-120%
460-00-4	4-Bromofluorobenzene	102%	100%	98%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7065-BFB
Lab File ID: 3D166145.D
Instrument ID: GCMS3D
Injection Date: 06/29/21
Injection Time: 20:50

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	13059	17.4		Pass
75	30.0 - 60.0% of mass 95	36570	48.7		Pass
95	Base peak, 100% relative abundance	75024	100.0		Pass
96	5.0 - 9.0% of mass 95	5196	6.93		Pass
173	Less than 2.0% of mass 174	818	1.09	(1.16) [a]	Pass
174	50.0 - 120.0% of mass 95	70240	93.6		Pass
175	5.0 - 9.0% of mass 174	5588	7.45	(7.96) [a]	Pass
176	95.0 - 101.0% of mass 174	68888	91.8	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	4657	6.21	(6.76) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D7065-IC7065	3D166146.D	06/29/21	21:21	00:31	Initial cal 0.2
V3D7065-IC7065	3D166147.D	06/29/21	21:46	00:56	Initial cal 0.5
V3D7065-IC7065	3D166148.D	06/29/21	22:11	01:21	Initial cal 1
V3D7065-IC7065	3D166149.D	06/29/21	22:35	01:45	Initial cal 2
V3D7065-IC7065	3D166150.D	06/29/21	23:00	02:10	Initial cal 4
V3D7065-IC7065	3D166151.D	06/29/21	23:25	02:35	Initial cal 8
V3D7065-IC7065	3D166152.D	06/29/21	23:50	03:00	Initial cal 20
V3D7065-ICC7065	3D166153.D	06/30/21	00:15	03:25	Initial cal 50
V3D7065-IC7065	3D166154.D	06/30/21	00:40	03:50	Initial cal 100
V3D7065-IC7065	3D166155.D	06/30/21	01:04	04:14	Initial cal 200
V3D7065-ICV7065	3D166158.D	06/30/21	02:19	05:29	Initial cal verification 50
V3D7065-ICV7065	3D166159.D	06/30/21	02:44	05:54	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7065-BFB2
Lab File ID: 3D166161.D
Instrument ID: GCMS3D
Injection Date: 06/30/21
Injection Time: 09:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	12259	17.5		Pass
75	30.0 - 60.0% of mass 95	33640	48.1		Pass
95	Base peak, 100% relative abundance	69992	100.0		Pass
96	5.0 - 9.0% of mass 95	4843	6.92		Pass
173	Less than 2.0% of mass 174	658	0.94	(1.05) [a]	Pass
174	50.0 - 120.0% of mass 95	62549	89.4		Pass
175	5.0 - 9.0% of mass 174	4942	7.06	(7.90) [a]	Pass
176	95.0 - 101.0% of mass 174	60970	87.1	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4057	5.80	(6.65) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D7065-ICV7065	3D166162.D	06/30/21	12:30	02:37	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample:	V3D7090-BFB	**Injection Date:**	07/14/21
Lab File ID:	3D166746.D	**Injection Time:**	21:26
Instrument ID:	GCMS3D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11743	16.5		Pass
75	30.0 - 60.0% of mass 95	32904	46.2		Pass
95	Base peak, 100% relative abundance	71285	100.0		Pass
96	5.0 - 9.0% of mass 95	4741	6.65		Pass
173	Less than 2.0% of mass 174	730	1.02	(1.06) [a]	Pass
174	50.0 - 120.0% of mass 95	68549	96.2		Pass
175	5.0 - 9.0% of mass 174	5116	7.18	(7.46) [a]	Pass
176	95.0 - 101.0% of mass 174	66245	92.9	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	4513	6.33	(6.81) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D7090-CC7065	3D166746.D	07/14/21	21:26	00:00	Continuing cal 50
V3D7090-BS	3D166748.D	07/14/21	22:16	00:50	Blank Spike
V3D7090-MB	3D166750.D	07/14/21	23:05	01:39	Method Blank
JD28016-8	3D166751.D	07/14/21	23:30	02:04	RWSEEPS 070821
JD28016-8MS	3D166752.D	07/14/21	23:55	02:29	Matrix Spike
JD28016-8MSD	3D166753.D	07/15/21	00:20	02:54	Matrix Spike Duplicate
JD28016-9	3D166755.D	07/15/21	01:10	03:44	EQ BLANK
JD28016-10	3D166756.D	07/15/21	01:35	04:09	TRIP BLANK
ZZZZZZ	3D166757.D	07/15/21	01:59	04:33	(unrelated sample)
ZZZZZZ	3D166758.D	07/15/21	02:24	04:58	(unrelated sample)
ZZZZZZ	3D166759.D	07/15/21	02:49	05:23	(unrelated sample)
ZZZZZZ	3D166760.D	07/15/21	03:14	05:48	(unrelated sample)
JD28016-1	3D166761.D	07/15/21	03:39	06:13	BD24SEEP 070821
JD28016-2	3D166762.D	07/15/21	04:04	06:38	BD070821
JD28016-3	3D166763.D	07/15/21	04:29	07:03	OPEN DITCH 001 070821
JD28016-4	3D166764.D	07/15/21	04:53	07:27	BYPASS 070821
JD28016-5	3D166765.D	07/15/21	05:18	07:52	WBSEEPS 070821
JD28016-6	3D166766.D	07/15/21	05:43	08:17	OUTFALL 001 070821
JD28016-7	3D166767.D	07/15/21	06:08	08:42	WOODEN SLUICE 070821
ZZZZZZ	3D166768.D	07/15/21	06:33	09:07	(unrelated sample)
ZZZZZZ	3D166769.D	07/15/21	06:58	09:32	(unrelated sample)
ZZZZZZ	3D166770.D	07/15/21	07:23	09:57	(unrelated sample)

Internal Standard Area Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Check Std:	V3D7090-CC7065	**Injection Date:**	07/14/21
Lab File ID:	3D166746.D	**Injection Time:**	21:26
Instrument ID:	GCMS3D	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	124443	2.95	207320	4.16	303036	4.72	279090	7.10	137773	9.29
Upper Limit [a]	248886	3.45	414640	4.66	606072	5.22	558180	7.60	275546	9.79
Lower Limit [b]	62222	2.45	103660	3.66	151518	4.22	139545	6.60	68887	8.79

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3D7090-BS	125681	2.95	207991	4.16	296303	4.72	278108	7.10	135906	9.29
V3D7090-MB	123047	2.95	219715	4.16	297910	4.72	266415	7.10	135556	9.29
JD28016-8	115158	2.95	206838	4.16	282363	4.72	258012	7.10	128165	9.29
JD28016-8MS	117040	2.95	203824	4.16	291731	4.72	268698	7.10	132444	9.29
JD28016-8MSD	124849	2.95	205932	4.16	287309	4.72	263089	7.10	130784	9.29
JD28016-9	119249	2.95	217230	4.16	296186	4.72	269095	7.10	134517	9.29
JD28016-10	115719	2.95	216345	4.16	293830	4.72	260038	7.10	130455	9.29
ZZZZZZ	118718	2.95	211663	4.16	291660	4.72	263781	7.10	130483	9.29
ZZZZZZ	109262	2.95	205021	4.16	278948	4.72	251695	7.10	126038	9.29
ZZZZZZ	115272	2.95	213408	4.16	293032	4.72	265858	7.10	132942	9.29
ZZZZZZ	118361	2.95	211360	4.16	289031	4.72	260998	7.10	130071	9.29
JD28016-1	119997	2.95	213553	4.16	294596	4.72	267454	7.10	134324	9.29
JD28016-2	114970	2.95	210271	4.16	292319	4.72	267380	7.10	131161	9.29
JD28016-3	119308	2.95	207762	4.16	289057	4.72	265772	7.10	134819	9.29
JD28016-4	111101	2.95	207009	4.16	288366	4.72	260699	7.10	128215	9.29
JD28016-5	106863	2.95	196906	4.16	272136	4.72	252047	7.10	125143	9.29
JD28016-6	112744	2.95	206697	4.16	290501	4.72	263064	7.10	128503	9.29
JD28016-7	113953	2.95	206407	4.16	286703	4.72	262112	7.10	131179	9.29
ZZZZZZ	109125	2.95	202108	4.16	277644	4.72	255667	7.10	125829	9.29
ZZZZZZ	110216	2.95	205971	4.16	285585	4.72	261000	7.10	129228	9.29
ZZZZZZ	105738	2.95	202729	4.16	284500	4.72	255911	7.10	127679	9.29

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD28016-1	3D166761.D	106	100	98	98
JD28016-2	3D166762.D	107	100	98	99
JD28016-3	3D166763.D	107	102	98	98
JD28016-4	3D166764.D	106	99	100	99
JD28016-5	3D166765.D	107	98	98	99
JD28016-6	3D166766.D	108	100	99	100
JD28016-7	3D166767.D	109	103	99	97
JD28016-8	3D166751.D	105	97	99	98
JD28016-9	3D166755.D	104	98	98	98
JD28016-10	3D166756.D	101	97	101	97
JD28016-8MS	3D166752.D	105	93	97	102
JD28016-8MSD	3D166753.D	102	94	96	100
V3D7090-BS	3D166748.D	106	96	93	101
V3D7090-MB	3D166750.D	102	100	100	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	85-118%
S2 = 1,2-Dichloroethane-D4	80-121%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7065-ICC7065
Lab FileID: 3D166153.D

Response Factor Report MS3D

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
Last Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration

Calibration Files
1 =3D166148.D 0.5 =3D166147.D 100 =3D166154.D 50 =3D166153.D
20 =3D166152.D 200 =3D166155.D 4 =3D166150.D 2 =3D166149.D
8 =3D166151.D 0.2 =3D166146.D = =

Compound	1	0.5	100	50	20	200	4	2	8	0.2	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------											
2) tertiary butyl alcohol	1.248	1.356	1.200	1.172	1.152	1.214	1.225	1.278	1.194	0.991	1.203	7.84
3) ethanol	0.118	0.117	0.121	0.118	0.115	0.112	0.121	0.116	0.120	0.119	0.118	2.34
4) 1,4-dioxane	0.105	0.116	0.124	0.120	0.116	0.125	0.127	0.111	0.123		0.119	6.18
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane *This compound fails Initial Calibration criteria*	0.346		0.389	0.372	0.367	0.379	0.329	0.307	0.376		0.358	7.85
7) dichlorodifluoromethane			0.512	0.490	0.452	0.503	0.492	0.431	0.513		0.485	6.46
8) chloromethane	0.619	0.632	0.542	0.534	0.532	0.517	0.546	0.551	0.578		0.561	7.17
9) vinyl chloride	0.580	0.655	0.611	0.586	0.563	0.579	0.554	0.549	0.604	0.634	0.592	5.86
10) 1,3-butadiene	0.384	0.383	0.382	0.390	0.380	0.368	0.378	0.324	0.398	0.378	0.376	5.31
11) bromomethane	0.320	0.283	0.367	0.332	0.299	0.334	0.280	0.279	0.289		0.309	9.90
12) chloroethane	0.404		0.373	0.360	0.351	0.363	0.323	0.413	0.400		0.373	8.13
13) trichlorofluoromethane	0.578	0.569	0.622	0.606	0.576	0.594	0.583	0.576	0.628	0.494	0.583	6.39
14) ethyl ether	0.171	0.237	0.227	0.221	0.210	0.222	0.208	0.194	0.200		0.210	9.51
15) acrolein			0.076	0.075	0.068	0.074	0.062		0.066		0.070	8.40
16) freon 113	0.234		0.291	0.293	0.279	0.286	0.277	0.246	0.294		0.275	8.23
17) 1,1-dichloroethene	0.283	0.281	0.312	0.307	0.300	0.302	0.283	0.297	0.310		0.297	4.06
18) acetone	0.062		0.054	0.054	0.052	0.055	0.049	0.053	0.053		0.054	6.78
19) acetonitrile	0.069	0.064	0.057	0.057	0.057	0.055	0.059	0.057	0.057		0.059	7.71
20) iodomethane *This compound fails 624.1 Initial Calibration criteria*			0.452	0.423	0.376	0.428	0.252	0.210	0.314		0.351	26.81
----- Linear regression ----- Coefficient = 0.9984												
Response Ratio = -0.01260 + 0.43739 *A												
21) carbon disulfide	0.923	0.916	0.893	0.863	0.842	0.891	0.798	0.768	0.877		0.863	6.07

Initial Calibration Summary

Job Number: JD28016 **Sample:** V3D7065-ICC7065
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 3D166153.D
Project: Emersub 15, LLC, Ithaca, NY

22) methylene chloride
0.382 0.395 0.369 0.360 0.371 0.363 0.379 0.363 0.391 0.488 0.386 9.77
23) methyl acetate
0.379 0.365 0.325 0.333 0.319 0.323 0.314 0.310 0.306 0.330 7.59
24) methyl tert butyl ether
0.959 0.885 1.086 1.066 1.049 1.045 0.980 0.895 1.037 0.908 0.991 7.63
25) trans-1,2-dichloroethene
0.356 0.372 0.354 0.352 0.348 0.344 0.331 0.307 0.357 0.283 0.340 7.86
26) di-isopropyl ether
1.010 0.962 1.088 1.071 1.040 1.027 0.990 0.904 1.045 1.034 1.017 5.31
27) 2-butanone
0.061 0.067 0.066 0.062 0.068 0.051 0.055 0.060 0.061 9.85
28) 1,1-dichloroethane
0.635 0.639 0.596 0.587 0.591 0.587 0.585 0.580 0.605 0.705 0.611 6.38
29) chloroprene
0.461 0.401 0.523 0.510 0.498 0.515 0.436 0.439 0.491 0.404 0.468 9.82
30) acrylonitrile
0.155 0.149 0.140 0.153 0.152 0.147 0.149 3.54
31) hexane
0.178 0.184 0.213 0.221 0.208 0.222 0.189 0.184 0.215 0.202 8.71
32) vinyl acetate
0.091 0.083 0.081 0.078 0.072 0.077 0.080 8.18
33) ethyl tert-butyl ether
1.043 1.072 1.168 1.130 1.099 1.148 0.994 0.963 1.103 1.042 1.076 6.17
34) ethyl acetate
0.060 0.075 0.070 0.069 0.075 0.057 0.059 0.075 0.068 11.77
35) 2,2-dichloropropane
0.506 0.558 0.555 0.535 0.547 0.552 0.506 0.496 0.563 0.574 0.539 5.08
36) cis-1,2-dichloroethene
0.376 0.364 0.391 0.377 0.379 0.388 0.381 0.358 0.388 0.424 0.383 4.68
37) methyl acrylate
0.074 0.073 0.066 0.075 0.053 0.062 0.067 12.89
38) propionitrile
0.061 0.064 0.068 0.066 0.066 0.067 0.066 0.060 0.067 0.062 0.064 4.46
39) bromochloromethane
0.211 0.179 0.212 0.204 0.197 0.211 0.191 0.181 0.201 0.199 0.198 5.91
40) tetrahydrofuran
0.160 0.154 0.127 0.123 0.131 0.127 0.128 0.128 0.138 0.135 9.70
41) chloroform
0.446 0.465 0.409 0.394 0.399 0.407 0.380 0.382 0.420 0.512 0.421 9.89
42) t-butyl formate *This compound fails Initial Calibration criteria*
0.244 0.238 0.304 0.273 0.267 0.284 0.233 0.210 0.229 0.254 11.89
43) dibromofluoromethane (s)
0.375 0.374 0.379 0.373 0.373 0.389 0.372 0.365 0.377 0.375 0.375 1.63
44) methacrylonitrile
0.152 0.184 0.175 0.177 0.187 0.159 0.139 0.164 0.167 9.93
45) 1,1,1-trichloroethane
0.541 0.536 0.590 0.570 0.557 0.581 0.523 0.502 0.568 0.473 0.544 6.78
46) cyclohexane
0.572 0.570 0.527 0.525 0.512 0.524 0.515 0.484 0.541 0.410 0.518 8.92
47) 1,1-dichloropropene
0.462 0.474 0.499 0.484 0.471 0.499 0.398 0.418 0.467 0.479 0.465 7.06
48) iso-butyl alcohol
0.028 0.023 0.023 0.024 0.024 0.023 0.022 0.020 0.023 9.84
49) carbon tetrachloride
0.462 0.388 0.513 0.500 0.486 0.508 0.456 0.441 0.489 0.471 8.42
50) tert amyl alcohol
0.022 0.023 0.023 0.023 0.022 0.022 0.025 0.023 0.023 0.023 4.59

51) I 1,4-difluorobenzene ----------ISTD----------

52) 1,2-dichloroethane-d4 (s)
0.300 0.295 0.285 0.286 0.297 0.277 0.301 0.295 0.298 0.308 0.294 3.09
53) n-butyl alcohol
0.012 0.013 0.014 0.013 0.012 0.013 0.012 0.012 0.012 0.011 0.012 6.81
54) 2,2,4-trimethylpentane
0.551 0.509 0.523 0.532 0.540 0.519 0.544 0.518 0.579 0.471 0.529 5.38
55) benzene
1.082 1.067 1.021 1.029 1.001 0.948 0.976 0.947 1.048 1.036 1.016 4.62
56) tert-amyl methyl ether
0.188 0.163 0.221 0.217 0.202 0.218 0.199 0.190 0.200 0.200 9.25
57) heptane
0.108 0.139 0.141 0.138 0.138 0.140 0.131 0.151 0.136 9.22
58) isopropyl acetate
0.085 0.082 0.078 0.083 0.076 0.060 0.075 0.077 10.97
59) 1,2-dichloroethane
0.391 0.361 0.353 0.342 0.343 0.338 0.360 0.349 0.359 0.463 0.366 10.18
60) trichloroethene
0.317 0.297 0.329 0.330 0.305 0.327 0.271 0.261 0.309 0.241 0.299 10.32
61) ethyl acrylate
0.355 0.321 0.399 0.392 0.379 0.382 0.365 0.379 0.372 0.355 0.370 6.02
62) 2-nitropropane
0.096 0.097 0.090 0.087 0.096 0.091 0.095 0.085 0.092 4.89
63) 2-chloroethyl vinyl ether
0.172 0.165 0.203 0.195 0.185 0.195 0.179 0.162 0.181 0.170 0.181 7.60
64) methyl methacrylate
0.083 0.097 0.094 0.093 0.095 0.083 0.079 0.093 0.090 7.46
65) 1,2-dichloropropane
0.248 0.243 0.277 0.266 0.250 0.276 0.244 0.227 0.259 0.187 0.248 10.60
66) dibromomethane
0.166 0.157 0.174 0.170 0.167 0.169 0.164 0.156 0.172 0.166 3.77
67) methylcyclohexane
0.344 0.300 0.401 0.403 0.395 0.400 0.378 0.344 0.400 0.374 9.75
68) bromodichloromethane
0.329 0.353 0.365 0.352 0.342 0.359 0.333 0.306 0.343 0.342 5.24
69) epichlorohydrin
0.028 0.040 0.038 0.037 0.038 0.038 0.033 0.037 0.036 10.05
70) cis-1,3-dichloropropene
0.421 0.388 0.469 0.461 0.438 0.460 0.410 0.384 0.413 0.383 0.423 7.80
71) 4-methyl-2-pentanone
0.133 0.129 0.139 0.133 0.134 0.132 0.134 0.133 0.135 0.133 0.133 1.82
72) 3-methyl-1-butanol
0.019 0.018 0.020 0.020 0.019 0.020 0.019 0.019 0.019 0.015 0.019 7.74

73) I chlorobenzene-d5 ----------ISTD----------
74) toluene-d8 (s)
1.347 1.330 1.247 1.269 1.293 1.228 1.323 1.353 1.324 1.336 1.305 3.33
75) toluene
0.833 0.900 0.774 0.766 0.770 0.733 0.783 0.760 0.795 0.956 0.807 8.66
76) trans-1,3-dichloropropene
0.432 0.395 0.496 0.475 0.449 0.484 0.423 0.417 0.451 0.452 0.447 7.07
77) ethyl methacrylate
0.393 0.477 0.467 0.463 0.451 0.431 0.455 0.401 0.472 0.415 0.442 6.93
78) 1,1,2-trichloroethane
0.249 0.249 0.246 0.238 0.227 0.236 0.213 0.214 0.223 0.233 6.10
79) tetrachloroethene
0.320 0.300 0.296 0.298 0.295 0.284 0.279 0.294 0.297 0.296 3.79
80) 1,3-dichloropropane
0.479 0.456 0.506 0.497 0.489 0.480 0.470 0.460 0.491 0.418 0.475 5.31
81) 2-hexanone
0.156 0.148 0.155 0.159 0.160 0.143 0.166 0.157 0.161 0.124 0.153 8.00

Initial Calibration Summary

Job Number: JD28016 **Sample:** V3D7065-ICC7065
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 3D166153.D
Project: Emersub 15, LLC, Ithaca, NY

82) butyl acetate
0.273 0.256 0.255 0.249 0.249 0.235 0.246 0.229 0.245 0.249 5.09
83) dibromochloromethane
0.319 0.301 0.368 0.351 0.331 0.354 0.319 0.310 0.331 0.332 6.69
84) 1,2-dibromoethane
0.303 0.322 0.326 0.317 0.309 0.313 0.298 0.292 0.301 0.289 0.307 4.04
85) n-butyl ether
1.298 1.364 1.243 1.234 1.220 1.164 1.215 1.160 1.257 1.252 1.241 4.84
86) chlorobenzene
0.957 0.954 0.893 0.878 0.872 0.837 0.886 0.863 0.906 1.008 0.905 5.76
87) 1,1,1,2-tetrachloroethane
0.307 0.308 0.337 0.326 0.303 0.325 0.290 0.286 0.324 0.315 0.312 5.21
88) ethylbenzene
1.542 1.624 1.388 1.431 1.431 1.277 1.449 1.453 1.518 1.634 1.475 7.35
89) m,p-xylene
0.626 0.630 0.580 0.583 0.579 0.547 0.581 0.556 0.612 0.658 0.595 5.89
90) o-xylene
0.616 0.588 0.588 0.586 0.583 0.568 0.568 0.581 0.596 0.585 0.586 2.31
91) styrene
0.940 1.003 0.987 0.980 0.975 0.921 0.963 0.927 1.004 0.947 0.965 3.11
92) bromoform
0.240 0.242 0.297 0.285 0.267 0.287 0.243 0.224 0.261 0.261 9.73
93) butyl acrylate
0.606 0.595 0.687 0.677 0.649 0.646 0.617 0.554 0.646 0.561 0.624 7.26
94) n-amyl acetate
0.242 0.235 0.289 0.287 0.275 0.272 0.271 0.217 0.259 0.261 9.44
95) isopropylbenzene
1.536 1.558 1.440 1.457 1.441 1.319 1.446 1.385 1.500 1.709 1.479 7.20
96) cis-1,4-dichloro-2-butene *This compound fails Initial Calibration criteria*
0.171 0.259 0.151 0.164 0.133 0.138 0.169 27.39
----- Quadratic regression ----- Coefficient = 0.9750
Response Ratio = -0.01102 + 0.23381 *A + -0.01740 *A^2

97) I 1,4-dichlorobenzene-d ----------ISTD----------
98) 4-bromofluorobenzene (s)
0.916 0.911 0.924 0.913 0.906 0.928 0.916 0.910 0.920 0.926 0.917 0.80
99) bromobenzene
0.808 0.890 0.838 0.834 0.818 0.809 0.790 0.772 0.829 0.903 0.829 4.94
100) 1,1,2,2-tetrachloroethane
0.813 0.824 0.814 0.786 0.749 0.791 0.752 0.683 0.766 0.926 0.790 7.98
101) trans-1,4-dichloro-2-butene
0.266 0.263 0.239 0.271 0.213 0.228 0.247 9.56
102) 1,2,3-trichloropropane
0.228 0.301 0.277 0.275 0.258 0.269 0.276 0.265 0.276 0.269 7.29
103) n-propylbenzene
3.402 3.499 3.152 3.204 3.128 2.983 3.114 3.130 3.327 3.775 3.271 7.15
104) 2-chlorotoluene
0.737 0.739 0.746 0.723 0.704 0.729 0.725 0.638 0.724 0.718 4.53
105) 4-chlorotoluene
0.730 0.778 0.764 0.748 0.729 0.747 0.716 0.696 0.775 0.601 0.728 7.09
106) 1,3,5-trimethylbenzene
2.334 2.329 2.281 2.288 2.256 2.192 2.283 2.114 2.371 2.645 2.309 6.02
107) tert-butylbenzene
0.535 0.469 0.573 0.561 0.539 0.569 0.494 0.483 0.529 0.552 0.530 6.92
108) 1,2,4-trimethylbenzene
2.300 2.625 2.353 2.381 2.330 2.270 2.361 2.306 2.472 2.613 2.401 5.30
109) sec-butylbenzene
2.721 2.743 2.702 2.693 2.648 2.600 2.550 2.512 2.763 2.641 2.657 3.12
110) 1,3-dichlorobenzene

```
       1.505 1.398 1.458 1.443 1.411 1.425 1.353 1.332 1.428 1.412  1.417    3.50
111)  p-isopropyltoluene
       2.351 2.705 2.323 2.346 2.327 2.220 2.314 2.261 2.452 2.382  2.368    5.66
112)  1,4-dichlorobenzene
       1.503 1.578 1.443 1.424 1.385 1.399 1.433 1.387 1.489 1.446  1.449    4.14
113)  1,2,3-trimethylbenzene
       2.478 2.522 2.399 2.412 2.375 2.283 2.502 2.389 2.520 2.659  2.454    4.26
114)  benzyl chloride
       1.349 1.606 1.776 1.727 1.587 1.736 1.431 1.338 1.570 1.515  1.564   10.02
115)  1,2-dichlorobenzene
       1.375 1.247 1.370 1.374 1.312 1.327 1.345 1.216 1.390 1.352  1.331    4.35
116)  n-butylbenzene
       0.927 0.999 1.084 1.050 1.009 1.094 0.961 0.935 1.015 0.797  0.987    8.88
117)  1,2-dibromo-3-chloropropane
                   0.259 0.250 0.234 0.263 0.206 0.196 0.216        0.232   11.50
118)  1,3,5-trichlorobenzene
       0.907 0.858 1.019 1.008 0.953 1.008 0.891 0.802 0.960        0.934    8.03
119)  2-ethylhexyl acrylate
                                                                    0.000#  -1.00
120)  1,2,4-trichlorobenzene
       0.696 0.723 0.913 0.895 0.814 0.908 0.768 0.711 0.779        0.801   10.80
121)  hexachlorobutadiene
                   0.312 0.295 0.270 0.306 0.257 0.245 0.279        0.280    8.93
122)  naphthalene
                   2.251 2.265 2.135 2.152 1.906 1.652 2.056        2.060   10.53
123)  1,2,3-trichlorobenzene
       0.583 0.613 0.750 0.735 0.690 0.745 0.604 0.532 0.676        0.659   11.95
124)  hexachloroethane
                   0.457 0.435 0.397 0.462 0.359 0.337 0.393        0.406   11.83
125)  2-methylnaphthalene
                   0.813 0.730 0.616 0.841             0.479        0.696   21.45
              ----- Linear regression -----  Coefficient =  0.9987
                Response Ratio = -0.03596 + 0.84697 *A

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 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3D7065.M         Thu Jul 01 10:17:33 2021   3D
```

Initial Calibration Verification

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7065-ICV7065
Lab FileID: 3D166158.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V3D7065\3D166158.D Vial: 15
Acq On : 30 Jun 2021 2:19 am Operator: brittank
Sample : icv7065-50 Inst : MS3D
Misc : MS51769,V3D7065,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
Last Update : Wed Jun 30 12:10:24 2021
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	94	0.00	2.95
2	M	tertiary butyl alcohol	1.203	1.212	-0.7	97	0.00	3.01
3		ethanol	0.118	0.126	-6.8	100	0.00	2.39
4	M	1,4-dioxane	0.119	0.130	-9.2	101	0.00	5.14
5	I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	4.16
6		chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8	M	chloromethane	0.561	0.551	1.8	103	0.00	1.73
9	M	vinyl chloride	0.592	0.653	-10.3	111	0.00	1.81
10		1,3-butadiene	0.376	0.470	-25.0	120	0.00	1.84
11	M	bromomethane	0.309	0.374	-21.0	112	0.00	2.06
12	M	chloroethane	0.373	0.382	-2.4	106	0.00	2.13
13	M	trichlorofluoromethane	0.583	0.646	-10.8	106	0.00	2.31
14	M	ethyl ether	0.210	0.248	-18.1	111	0.00	2.49
15	M	acrolein	0.070	0.076	-8.6	101	0.00	2.58
16		freon 113	0.275	0.285	-3.6	97	0.00	2.66
17	M	1,1-dichloroethene	0.297	0.325	-9.4	105	0.00	2.67
18	M	acetone	0.054	0.053	1.9	99	0.00	2.67
19	M	acetonitrile		----------NA----------				
		----------	True	Calc.	% Drift	----------		
20	M	iodomethane	50.000	52.171	-4.3	104	0.00	2.78
		----------	AvgRF	CCRF	% Dev	----------		
21	M	carbon disulfide	0.863	0.919	-6.5	106	0.00	2.84
22	M	methylene chloride	0.386	0.375	2.8	104	0.00	2.98
23	M	methyl acetate	0.330	0.313	5.2	94	0.00	2.87
24	M	methyl tert butyl ether	0.991	1.118	-12.8	104	0.00	3.15
25	M	trans-1,2-dichloroethene	0.340	0.356	-4.7	101	0.00	3.17
26	M	di-isopropyl ether	1.017	1.016	0.1	94	0.00	3.45
27	M	2-butanone	0.061	0.066	-8.2	100	0.00	3.80
28	M	1,1-dichloroethane	0.611	0.599	2.0	102	0.00	3.45
29	M	chloroprene	0.468	0.561	-19.9	110	0.00	3.51
30	M	acrylonitrile		----------NA----------				
31		hexane	0.202	0.251	-24.3	113	0.00	3.35
32	M	vinyl acetate	0.080	0.079	1.3	94	0.00	3.43
33	M	ethyl tert-butyl ether	1.076	1.073	0.3	94	0.00	3.70
34	M	ethyl acetate	0.068	0.074	-8.8	104	0.00	3.82
35	M	2,2-dichloropropane	0.539	0.535	0.7	100	0.00	3.84
36	M	cis-1,2-dichloroethene	0.383	0.395	-3.1	104	0.00	3.83
37		methyl acrylate	0.067	0.070	-4.5	95	0.00	3.86

Initial Calibration Verification

Job Number: JD28016 **Sample:** V3D7065-ICV7065
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 3D166158.D
Project: Emersub 15, LLC, Ithaca, NY

38	M	propionitrile	0.064	0.066	-3.1	100	0.00	3.84
39	M	bromochloromethane	0.198	0.208	-5.1	101	0.00	4.00
40	M	tetrahydrofuran	0.135	0.123	8.9	100	0.00	4.01
41	M	chloroform	0.421	0.405	3.8	102	0.00	4.05
42	M	t-butyl formate	0.254	0.160	37.0#	58	0.00	4.07
43	S	dibromofluoromethane (s)	0.375	0.378	-0.8	101	0.00	4.16
44	M	methacrylonitrile	0.167	0.181	-8.4	103	0.00	3.95
45	M	1,1,1-trichloroethane	0.544	0.580	-6.6	101	0.00	4.20
46		cyclohexane	0.518	0.552	-6.6	105	0.00	4.26
47		1,1-dichloropropene	0.465	0.499	-7.3	102	0.00	4.30
48		iso-butyl alcohol	0.023	0.021	8.7	91	0.00	4.29
49		carbon tetrachloride	0.471	0.511	-8.5	102	0.00	4.31
50		tert amyl alcohol	0.023	0.022	4.3	96	0.00	4.39
51	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	4.72
52	S	1,2-dichloroethane-d4 (s)	0.294	0.282	4.1	99	0.00	4.40
53	M	n-butyl alcohol	0.012	0.013	-8.3	96	0.00	4.77
54		2,2,4-trimethylpentane	0.529	0.506	4.3	95	0.00	4.52
55	M	benzene	1.016	1.041	-2.5	101	0.00	4.45
56	M	tert-amyl methyl ether	0.200	0.193	3.5	89	0.00	4.51
57	M	heptane	0.136	0.143	-5.1	101	0.00	4.63
58	M	isopropyl acetate	0.077	0.079	-2.6	97	0.00	4.42
59	M	1,2-dichloroethane	0.366	0.353	3.6	104	0.00	4.47
60	M	trichloroethene	0.299	0.337	-12.7	103	0.00	4.92
61		ethyl acrylate	0.370	0.384	-3.8	98	0.00	4.93
62	M	2-nitropropane	0.092	0.090	2.2	100	0.00	5.44
63	M	2-chloroethyl vinyl ether	0.181	0.192	-6.1	99	0.00	5.48
64	M	methyl methacrylate	0.090	0.096	-6.7	103	0.00	5.11
65	M	1,2-dichloropropane	0.248	0.271	-9.3	102	0.00	5.11
66	M	dibromomethane	0.166	0.169	-1.8	100	0.00	5.17
67	M	methylcyclohexane	0.374	0.401	-7.2	100	0.00	5.11
68	M	bromodichloromethane	0.342	0.354	-3.5	101	0.00	5.29
69		epichlorohydrin	0.036	0.038	-5.6	100	0.00	5.53
70	M	cis-1,3-dichloropropene	0.423	0.452	-6.9	98	0.00	5.63
71	M	4-methyl-2-pentanone	0.133	0.129	3.0	97	0.00	5.73
72	M	3-methyl-1-butanol	0.019	0.019	0.0	95	0.00	5.75
73	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	7.10
74	S	toluene-d8 (s)	1.305	1.266	3.0	100	0.00	5.86
75		toluene	0.807	0.796	1.4	104	0.00	5.92
76		trans-1,3-dichloropropene	0.447	0.496	-11.0	104	0.00	6.08
77		ethyl methacrylate	0.442	0.464	-5.0	100	0.00	6.10
78		1,1,2-trichloroethane	0.233	0.245	-5.2	103	0.00	6.25
79	M	tetrachloroethene	----------NA----------					
80	M	1,3-dichloropropane	0.475	0.506	-6.5	102	0.00	6.39
81		2-hexanone	0.153	0.158	-3.3	99	0.00	6.41
82	M	butyl acetate	0.249	0.253	-1.6	102	0.00	6.51
83	M	dibromochloromethane	0.332	0.376	-13.3	107	0.00	6.59
84	M	1,2-dibromoethane	0.307	0.328	-6.8	103	0.00	6.70
85		n-butyl ether	1.241	1.213	2.3	98	0.00	7.19
86	M	chlorobenzene	0.905	0.909	-0.4	103	0.00	7.13
87	M	1,1,1,2-tetrachloroethane	0.312	0.335	-7.4	103	0.00	7.20
88	M	ethylbenzene	1.475	1.461	0.9	102	0.00	7.21
89	M	m,p-xylene	0.595	0.609	-2.4	104	0.00	7.32
90	M	o-xylene	0.586	0.603	-2.9	103	0.00	7.68
91	M	styrene	0.965	1.010	-4.7	103	0.00	7.69
92	M	bromoform	0.261	0.298	-14.2	104	0.00	7.86
93		butyl acrylate	0.624	0.668	-7.1	99	0.00	7.60
94		n-amyl acetate	0.261	0.280	-7.3	97	0.00	7.81
95		isopropylbenzene	1.479	1.496	-1.1	103	0.00	8.01

			True	Calc.	% Drift			
96		cis-1,4-dichloro-2-butene	50.000	45.541	8.9	72	0.00	8.06

			AvgRF	CCRF	% Dev			
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	9.29
98	S	4-bromofluorobenzene (s)	0.917	0.913	0.4	100	0.00	8.18
99	M	bromobenzene	0.829	0.870	-4.9	104	0.00	8.32
100	M	1,1,2,2-tetrachloroethane	0.790	0.787	0.4	100	0.00	8.29
101	M	trans-1,4-dichloro-2-bute	0.247	0.264	-6.9	100	0.00	8.32
102	M	1,2,3-trichloropropane	0.269	0.280	-4.1	102	0.00	8.35
103	M	n-propylbenzene	3.271	3.296	-0.8	103	0.00	8.41
104	M	2-chlorotoluene	0.718	0.762	-6.1	105	0.00	8.50
105	M	4-chlorotoluene	0.728	0.774	-6.3	104	0.00	8.62
106	M	1,3,5-trimethylbenzene	2.309	2.390	-3.5	104	0.00	8.58
107	M	tert-butylbenzene	0.530	0.588	-10.9	105	0.00	8.88
108	M	1,2,4-trimethylbenzene	2.401	2.465	-2.7	104	0.00	8.94
109	M	sec-butylbenzene	2.657	2.775	-4.4	103	0.00	9.10
110	M	1,3-dichlorobenzene	1.417	1.498	-5.7	104	0.00	9.22
111	M	p-isopropyltoluene	2.368	2.442	-3.1	104	0.00	9.24
112	M	1,4-dichlorobenzene	1.449	1.479	-2.1	104	0.00	9.32
113		1,2,3-trimethylbenzene		----------NA----------				
114		benzyl chloride	1.564	1.623	-3.8	94	0.00	9.42
115	M	1,2-dichlorobenzene	1.331	1.407	-5.7	102	0.00	9.67
116	M	n-butylbenzene	0.987	1.091	-10.5	104	0.00	9.65
117	M	1,2-dibromo-3-chloropropa	0.232	0.247	-6.5	99	0.00	10.43
118		1,3,5-trichlorobenzene	0.934	1.036	-10.9	103	0.00	10.63
119		2-ethylhexyl acrylate		----------NA----------				
120	M	1,2,4-trichlorobenzene	0.801	0.922	-15.1	103	0.00	11.26
121	M	hexachlorobutadiene	0.280	0.315	-12.5	107	0.00	11.40
122	M	naphthalene	2.060	2.288	-11.1	101	0.00	11.51
123	M	1,2,3-trichlorobenzene	0.659	0.770	-16.8	105	0.00	11.74
124	m	hexachloroethane	0.406	0.458	-12.8	105	0.00	9.95

			True	Calc.	% Drift			
125		2-methylnaphthalene	25.000	24.818	0.7	105	0.00	12.65

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

3D166153.D M3D7065.M Wed Jun 30 17:21:31 2021 3D

Initial Calibration Verification

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7065-ICV7065
Lab FileID: 3D166159.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V3D7065\3D166159.D Vial: 16
Acq On : 30 Jun 2021 2:44 am Operator: brittank
Sample : icv7065-50 Inst : MS3D
Misc : MS51769,V3D7065,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
Last Update : Wed Jun 30 12:10:24 2021
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	89	0.00	2.95
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	4.15
6		chlorodifluoromethane	0.358	0.527	-47.2#	149	0.00	1.59
7	M	dichlorodifluoromethane		----------NA----------				
8	M	chloromethane		----------NA----------				
9	M	vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11	M	bromomethane		----------NA----------				
12	M	chloroethane		----------NA----------				
13	M	trichlorofluoromethane		----------NA----------				
14	M	ethyl ether		----------NA----------				
15	M	acrolein		----------NA----------				
16		freon 113		----------NA----------				
17	M	1,1-dichloroethene		----------NA----------				
18	M	acetone		----------NA----------				
19	M	acetonitrile	0.059	0.053	10.2	99	0.00	2.84
		---------- True Calc. % Drift ----------						
20	M	iodomethane		----------NA----------				
		---------- AvgRF CCRF % Dev ----------						
21	M	carbon disulfide		----------NA----------				
22	M	methylene chloride		----------NA----------				
23	M	methyl acetate		----------NA----------				
24	M	methyl tert butyl ether		----------NA----------				
25	M	trans-1,2-dichloroethene		----------NA----------				
26	M	di-isopropyl ether		----------NA----------				
27	M	2-butanone		----------NA----------				
28	M	1,1-dichloroethane		----------NA----------				
29	M	chloroprene		----------NA----------				
30	M	acrylonitrile	0.149	0.143	4.0	102	0.00	3.11
31		hexane		----------NA----------				
32	M	vinyl acetate		----------NA----------				
33	M	ethyl tert-butyl ether		----------NA----------				
34	M	ethyl acetate		----------NA----------				
35	M	2,2-dichloropropane		----------NA----------				
36	M	cis-1,2-dichloroethene		----------NA----------				
37		methyl acrylate		----------NA----------				

38	M	propionitrile		----------NA----------					
39	M	bromochloromethane		----------NA----------					
40	M	tetrahydrofuran		----------NA----------					
41	M	chloroform		----------NA----------					
42	M	t-butyl formate		----------NA----------					
43	S	dibromofluoromethane (s)	0.375	0.365	2.7	103	0.00	4.16	
44	M	methacrylonitrile		----------NA----------					
45	M	1,1,1-trichloroethane		----------NA----------					
46		cyclohexane		----------NA----------					
47		1,1-dichloropropene		----------NA----------					
48		iso-butyl alcohol		----------NA----------					
49		carbon tetrachloride		----------NA----------					
50		tert amyl alcohol		----------NA----------					
51	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	4.72	
52	S	1,2-dichloroethane-d4 (s)	0.294	0.283	3.7	100	0.00	4.40	
53	M	n-butyl alcohol		----------NA----------					
54		2,2,4-trimethylpentane		----------NA----------					
55	M	benzene		----------NA----------					
56	M	tert-amyl methyl ether		----------NA----------					
57	M	heptane		----------NA----------					
58	M	isopropyl acetate		----------NA----------					
59	M	1,2-dichloroethane		----------NA----------					
60	M	trichloroethene		----------NA----------					
61		ethyl acrylate		----------NA----------					
62	M	2-nitropropane		----------NA----------					
63	M	2-chloroethyl vinyl ether		----------NA----------					
64	M	methyl methacrylate		----------NA----------					
65	M	1,2-dichloropropane		----------NA----------					
66	M	dibromomethane		----------NA----------					
67	M	methylcyclohexane		----------NA----------					
68	M	bromodichloromethane		----------NA----------					
69		epichlorohydrin		----------NA----------					
70	M	cis-1,3-dichloropropene		----------NA----------					
71	M	4-methyl-2-pentanone		----------NA----------					
72	M	3-methyl-1-butanol		----------NA----------					
73	I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	7.10	
74	S	toluene-d8 (s)	1.305	1.350	-3.4	103	0.00	5.86	
75		toluene		----------NA----------					
76		trans-1,3-dichloropropene		----------NA----------					
77		ethyl methacrylate		----------NA----------					
78		1,1,2-trichloroethane		----------NA----------					
79	M	tetrachloroethene	0.296	0.319	-7.8	104	0.00	6.36	
80	M	1,3-dichloropropane		----------NA----------					
81		2-hexanone		----------NA----------					
82	M	butyl acetate		----------NA----------					
83	M	dibromochloromethane		----------NA----------					
84	M	1,2-dibromoethane		----------NA----------					
85		n-butyl ether		----------NA----------					
86	M	chlorobenzene		----------NA----------					
87	M	1,1,1,2-tetrachloroethane		----------NA----------					
88	M	ethylbenzene		----------NA----------					
89	M	m,p-xylene		----------NA----------					
90	M	o-xylene		----------NA----------					
91	M	styrene		----------NA----------					
92	M	bromoform		----------NA----------					
93		butyl acrylate		----------NA----------					
94		n-amyl acetate		----------NA----------					
95		isopropylbenzene		----------NA----------					

Initial Calibration Verification

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7065-ICV7065
Lab FileID: 3D166159.D

				True	Calc.	% Drift		
96		cis-1,4-dichloro-2-butene		----------NA----------				

			AvgRF	CCRF	% Dev			
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	9.29
98	S	4-bromofluorobenzene (s)	0.917	0.874	4.7	98	0.00	8.18
99	M	bromobenzene		----------NA----------				
100	M	1,1,2,2-tetrachloroethane		----------NA----------				
101	M	trans-1,4-dichloro-2-bute		----------NA----------				
102	M	1,2,3-trichloropropane		----------NA----------				
103	M	n-propylbenzene		----------NA----------				
104	M	2-chlorotoluene		----------NA----------				
105	M	4-chlorotoluene		----------NA----------				
106	M	1,3,5-trimethylbenzene		----------NA----------				
107	M	tert-butylbenzene		----------NA----------				
108	M	1,2,4-trimethylbenzene		----------NA----------				
109	M	sec-butylbenzene		----------NA----------				
110	M	1,3-dichlorobenzene		----------NA----------				
111	M	p-isopropyltoluene		----------NA----------				
112	M	1,4-dichlorobenzene		----------NA----------				
113		1,2,3-trimethylbenzene	2.454	2.642	-7.7	112	0.00	9.34
114		benzyl chloride		----------NA----------				
115	M	1,2-dichlorobenzene		----------NA----------				
116	M	n-butylbenzene		----------NA----------				
117	M	1,2-dibromo-3-chloropropa		----------NA----------				
118		1,3,5-trichlorobenzene		----------NA----------				
119		2-ethylhexyl acrylate		----------NA----------				
120	M	1,2,4-trichlorobenzene		----------NA----------				
121	M	hexachlorobutadiene		----------NA----------				
122	M	naphthalene		----------NA----------				
123	M	1,2,3-trichlorobenzene		----------NA----------				
124	m	hexachloroethane		----------NA----------				

			True	Calc.	% Drift
125		2-methylnaphthalene	----------NA----------		

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D166153.D M3D7065.M Wed Jun 30 17:22:03 2021 3D

Initial Calibration Verification

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7065-ICV7065
Lab FileID: 3D166162.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V3D7065\3D166162.D Vial: 19
Acq On : 30 Jun 2021 12:30 pm Operator: brittank
Sample : icv7065-50 Inst : MS3D
Misc : MS51769,V3D7065,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
Last Update : Wed Jun 30 12:10:24 2021
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	97	0.00	2.95
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	4.15
6		chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane	0.485	0.556	-14.6	121	0.00	1.59
8	M	chloromethane		----------NA----------				
9	M	vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11	M	bromomethane		----------NA----------				
12	M	chloroethane		----------NA----------				
13	M	trichlorofluoromethane		----------NA----------				
14	M	ethyl ether		----------NA----------				
15	M	acrolein		----------NA----------				
16		freon 113		----------NA----------				
17	M	1,1-dichloroethene		----------NA----------				
18	M	acetone		----------NA----------				
19	M	acetonitrile		----------NA----------				
		----------	True	Calc.	% Drift	----------		
20	M	iodomethane		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
21	M	carbon disulfide		----------NA----------				
22	M	methylene chloride		----------NA----------				
23	M	methyl acetate		----------NA----------				
24	M	methyl tert butyl ether		----------NA----------				
25	M	trans-1,2-dichloroethene		----------NA----------				
26	M	di-isopropyl ether		----------NA----------				
27	M	2-butanone		----------NA----------				
28	M	1,1-dichloroethane		----------NA----------				
29	M	chloroprene		----------NA----------				
30	M	acrylonitrile		----------NA----------				
31		hexane		----------NA----------				
32	M	vinyl acetate		----------NA----------				
33	M	ethyl tert-butyl ether		----------NA----------				
34	M	ethyl acetate		----------NA----------				
35	M	2,2-dichloropropane		----------NA----------				
36	M	cis-1,2-dichloroethene		----------NA----------				
37		methyl acrylate		----------NA----------				

38	M	propionitrile		----------NA----------					
39	M	bromochloromethane		----------NA----------					
40	M	tetrahydrofuran		----------NA----------					
41	M	chloroform		----------NA----------					
42	M	t-butyl formate		----------NA----------					
43	S	dibromofluoromethane (s)	0.375	0.369	1.6	105	0.00	4.16	
44	M	methacrylonitrile		----------NA----------					
45	M	1,1,1-trichloroethane		----------NA----------					
46		cyclohexane		----------NA----------					
47		1,1-dichloropropene		----------NA----------					
48		iso-butyl alcohol		----------NA----------					
49		carbon tetrachloride		----------NA----------					
50		tert amyl alcohol		----------NA----------					
51	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	4.71	
52	S	1,2-dichloroethane-d4 (s)	0.294	0.297	-1.0	106	0.00	4.40	
53	M	n-butyl alcohol		----------NA----------					
54		2,2,4-trimethylpentane		----------NA----------					
55	M	benzene		----------NA----------					
56	M	tert-amyl methyl ether		----------NA----------					
57	M	heptane		----------NA----------					
58	M	isopropyl acetate		----------NA----------					
59	M	1,2-dichloroethane		----------NA----------					
60	M	trichloroethene		----------NA----------					
61		ethyl acrylate		----------NA----------					
62	M	2-nitropropane		----------NA----------					
63	M	2-chloroethyl vinyl ether		----------NA----------					
64	M	methyl methacrylate		----------NA----------					
65	M	1,2-dichloropropane		----------NA----------					
66	M	dibromomethane		----------NA----------					
67	M	methylcyclohexane		----------NA----------					
68	M	bromodichloromethane		----------NA----------					
69		epichlorohydrin		----------NA----------					
70	M	cis-1,3-dichloropropene		----------NA----------					
71	M	4-methyl-2-pentanone		----------NA----------					
72	M	3-methyl-1-butanol		----------NA----------					
73	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	7.10	
74	S	toluene-d8 (s)	1.305	1.327	-1.7	104	0.00	5.86	
75		toluene		----------NA----------					
76		trans-1,3-dichloropropene		----------NA----------					
77		ethyl methacrylate		----------NA----------					
78		1,1,2-trichloroethane		----------NA----------					
79	M	tetrachloroethene		----------NA----------					
80	M	1,3-dichloropropane		----------NA----------					
81		2-hexanone		----------NA----------					
82	M	butyl acetate		----------NA----------					
83	M	dibromochloromethane		----------NA----------					
84	M	1,2-dibromoethane		----------NA----------					
85		n-butyl ether		----------NA----------					
86	M	chlorobenzene		----------NA----------					
87	M	1,1,1,2-tetrachloroethane		----------NA----------					
88	M	ethylbenzene		----------NA----------					
89	M	m,p-xylene		----------NA----------					
90	M	o-xylene		----------NA----------					
91	M	styrene		----------NA----------					
92	M	bromoform		----------NA----------					
93		butyl acrylate		----------NA----------					
94		n-amyl acetate		----------NA----------					
95		isopropylbenzene		----------NA----------					

			True	Calc.	% Drift
96		cis-1,4-dichloro-2-butene		NA	

			AvgRF	CCRF	% Dev			
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	9.29
98	S	4-bromofluorobenzene (s)	0.917	0.898	2.1	103	0.00	8.18
99	M	bromobenzene		NA				
100	M	1,1,2,2-tetrachloroethane		NA				
101	M	trans-1,4-dichloro-2-bute		NA				
102	M	1,2,3-trichloropropane		NA				
103	M	n-propylbenzene		NA				
104	M	2-chlorotoluene		NA				
105	M	4-chlorotoluene		NA				
106	M	1,3,5-trimethylbenzene		NA				
107	M	tert-butylbenzene		NA				
108	M	1,2,4-trimethylbenzene		NA				
109	M	sec-butylbenzene		NA				
110	M	1,3-dichlorobenzene		NA				
111	M	p-isopropyltoluene		NA				
112	M	1,4-dichlorobenzene		NA				
113		1,2,3-trimethylbenzene		NA				
114		benzyl chloride		NA				
115	M	1,2-dichlorobenzene		NA				
116	M	n-butylbenzene		NA				
117	M	1,2-dibromo-3-chloropropa		NA				
118		1,3,5-trichlorobenzene		NA				
119		2-ethylhexyl acrylate		NA				
120	M	1,2,4-trichlorobenzene		NA				
121	M	hexachlorobutadiene		NA				
122	M	naphthalene		NA				
123	M	1,2,3-trichlorobenzene		NA				
124	m	hexachloroethane		NA				

			True	Calc.	% Drift
125		2-methylnaphthalene		NA	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D166153.D M3D7065.M Wed Jun 30 17:22:17 2021 3D

Continuing Calibration Summary

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Sample: V3D7090-CC7065
Lab FileID: 3D166746.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...21\v3d7090\3d166746.d Vial: 1
Acq On : 14 Jul 2021 9:26 pm Operator: BridgetK
Sample : CC7065-50 Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
Last Update : Wed Jun 30 09:38:52 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	90	0.00	2.95
2	M	tertiary butyl alcohol	1.203	1.114	7.4	86	0.00	3.01
3		ethanol	0.118	0.118	0.0	90	0.00	2.39
4	M	1,4-dioxane	0.119	0.128	-7.6	96	0.00	5.14
5	I	pentafluorobenzene	1.000	1.000	0.0	84	0.00	4.16
6		chlorodifluoromethane	0.358	0.362	-1.1	82	0.00	1.59
7	M	dichlorodifluoromethane	0.482	0.517	-7.3	89	0.00	1.58
8	M	chloromethane	0.561	0.520	7.3	82	0.00	1.73
9	M	vinyl chloride	0.592	0.582	1.7	84	0.00	1.81
10		1,3-butadiene	0.376	0.407	-8.2	88	0.00	1.84
11	M	bromomethane	0.309	0.294	4.9	75	0.00	2.05
12	M	chloroethane	0.373	0.358	4.0	84	0.00	2.13
13	M	trichlorofluoromethane	0.583	0.632	-8.4	88	0.00	2.31
14	M	ethyl ether	0.210	0.228	-8.6	87	0.00	2.49
15	M	acrolein	0.070	0.076	-8.6	86	0.00	2.58
16		freon 113	0.275	0.298	-8.4	86	0.00	2.66
17	M	1,1-dichloroethene	0.297	0.306	-3.0	84	0.00	2.67
18	M	acetone	0.054	0.049	9.3	77	0.00	2.67
19	M	acetonitrile	0.059	0.059	0.0	88	0.00	2.84
			True	Calc.	% Drift			
20	M	iodomethane	50.000	38.661	22.7#	65	0.00	2.77
			AvgRF	CCRF	% Dev			
21	M	carbon disulfide	0.863	0.796	7.8	78	0.00	2.84
22	M	methylene chloride	0.386	0.384	0.5	90	0.00	2.98
23	M	methyl acetate	0.330	0.340	-3.0	86	0.00	2.87
24	M	methyl tert butyl ether	0.991	1.069	-7.9	85	0.00	3.15
25	M	trans-1,2-dichloroethene	0.340	0.345	-1.5	83	0.00	3.17
26	M	di-isopropyl ether	1.017	1.080	-6.2	85	0.00	3.45
27	M	2-butanone	0.061	0.066	-8.2	84	0.00	3.80
28	M	1,1-dichloroethane	0.611	0.594	2.8	85	0.00	3.45
29	M	chloroprene	0.468	0.498	-6.4	82	0.00	3.51
30	M	acrylonitrile	0.149	0.165	-10.7	93	0.00	3.11
31		hexane	0.202	0.222	-9.9	85	0.00	3.35
32	M	vinyl acetate	0.080	0.102	-27.5#	104	0.00	3.43
33	M	ethyl tert-butyl ether	1.076	1.134	-5.4	85	0.00	3.70
34	M	ethyl acetate	0.068	0.074	-8.8	89	0.00	3.82
35	M	2,2-dichloropropane	0.539	0.480	10.9	76	0.00	3.84
36	M	cis-1,2-dichloroethene	0.383	0.396	-3.4	89	0.00	3.83
37		methyl acrylate	0.067	0.078	-16.4	90	0.00	3.86

Continuing Calibration Summary

Job Number: JD28016 **Sample:** V3D7090-CC7065
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 3D166746.D
Project: Emersub 15, LLC, Ithaca, NY

38	M	propionitrile	0.064	0.072	-12.5	92	0.00	3.84
39	M	bromochloromethane	0.198	0.206	-4.0	85	0.00	4.00
40	M	tetrahydrofuran	0.135	0.133	1.5	91	0.00	4.01
41	M	chloroform	0.421	0.411	2.4	88	0.00	4.05
42	M	t-butyl formate	0.254	0.231	9.1	71	0.00	4.07
43	S	dibromofluoromethane (s)	0.375	0.409	-9.1	93	0.00	4.16
44	M	methacrylonitrile	0.167	0.189	-13.2	91	0.00	3.95
45	M	1,1,1-trichloroethane	0.544	0.562	-3.3	83	0.00	4.20
46		cyclohexane	0.518	0.539	-4.1	87	0.00	4.26
47		1,1-dichloropropene	0.465	0.493	-6.0	86	0.00	4.30
48		iso-butyl alcohol	0.023	0.025	-8.7	92	0.00	4.30
49		carbon tetrachloride	0.471	0.493	-4.7	83	0.00	4.31
50		tert amyl alcohol	0.023	0.027	-17.4	99	0.00	4.39
51	I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00	4.72
52	S	1,2-dichloroethane-d4 (s)	0.294	0.280	4.8	91	0.00	4.40
53	M	n-butyl alcohol	0.012	0.013	-8.3	91	0.00	4.77
54		2,2,4-trimethylpentane	0.529	0.513	3.0	90	0.00	4.52
55	M	benzene	1.016	0.958	5.7	87	0.00	4.45
56	M	tert-amyl methyl ether	0.200	0.199	0.5	85	0.00	4.51
57	M	heptane	0.136	0.136	0.0	89	0.00	4.63
58	M	isopropyl acetate	0.077	0.080	-3.9	90	0.00	4.42
59	M	1,2-dichloroethane	0.366	0.331	9.6	90	0.00	4.47
60	M	trichloroethene	0.299	0.285	4.7	80	0.00	4.92
61		ethyl acrylate	0.370	0.378	-2.2	90	0.00	4.93
62	M	2-nitropropane	0.092	0.077	16.3	79	0.00	5.44
63	M	2-chloroethyl vinyl ether	0.181	0.189	-4.4	90	0.00	5.48
64	M	methyl methacrylate	0.090	0.090	0.0	90	0.00	5.11
65	M	1,2-dichloropropane	0.248	0.255	-2.8	89	0.00	5.11
66	M	dibromomethane	0.166	0.164	1.2	90	0.00	5.17
67	M	methylcyclohexane	0.374	0.386	-3.2	89	0.00	5.11
68	M	bromodichloromethane	0.342	0.327	4.4	86	0.00	5.29
69		epichlorohydrin	0.036	0.037	-2.8	90	0.00	5.53
70	M	cis-1,3-dichloropropene	0.423	0.413	2.4	83	0.00	5.63
71	M	4-methyl-2-pentanone	0.133	0.134	-0.8	94	0.00	5.73
72	M	3-methyl-1-butanol	0.019	0.019	0.0	89	0.00	5.75
73	I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	7.10
74	S	toluene-d8 (s)	1.305	1.244	4.7	96	0.00	5.86
75		toluene	0.807	0.692	14.3	88	0.00	5.92
76		trans-1,3-dichloropropene	0.447	0.406	9.2	83	0.00	6.08
77		ethyl methacrylate	0.442	0.423	4.3	89	0.00	6.11
78		1,1,2-trichloroethane	0.233	0.227	2.6	93	0.00	6.25
79	M	tetrachloroethene	0.296	0.259	12.5	85	0.00	6.36
80	M	1,3-dichloropropane	0.475	0.468	1.5	92	0.00	6.39
81		2-hexanone	0.153	0.144	5.9	88	0.00	6.41
82	M	butyl acetate	0.249	0.238	4.4	93	0.00	6.51
83	M	dibromochloromethane	0.332	0.308	7.2	86	0.00	6.59
84	M	1,2-dibromoethane	0.307	0.294	4.2	91	0.00	6.70
85		n-butyl ether	1.241	1.081	12.9	85	0.00	7.19
86	M	chlorobenzene	0.905	0.803	11.3	89	0.00	7.13
87	M	1,1,1,2-tetrachloroethane	0.312	0.292	6.4	87	0.00	7.20
88	M	ethylbenzene	1.475	1.286	12.8	88	0.00	7.21
89	M	m,p-xylene	0.595	0.522	12.3	87	0.00	7.32
90	M	o-xylene	0.586	0.528	9.9	88	0.00	7.68
91	M	styrene	0.965	0.884	8.4	88	0.00	7.69
92	M	bromoform	0.261	0.237	9.2	81	0.00	7.86
93		butyl acrylate	0.624	0.585	6.3	84	0.00	7.60
94		n-amyl acetate	0.261	0.259	0.8	88	0.00	7.81
95		isopropylbenzene	1.479	1.295	12.4	87	0.00	8.01

Continuing Calibration Summary

Job Number: JD28016 **Sample:** V3D7090-CC7065
Account: WSPENYC WSP Environment & Energy **Lab FileID:** 3D166746.D
Project: Emersub 15, LLC, Ithaca, NY

			True	Calc.	% Drift			
96		cis-1,4-dichloro-2-butene	50.000	30.348	39.3#	47	0.00	8.06

			AvgRF	CCRF	% Dev			
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	9.29
98	S	4-bromofluorobenzene (s)	0.917	0.920	-0.3	99	0.00	8.18
99	M	bromobenzene	0.829	0.743	10.4	88	0.00	8.32
100	M	1,1,2,2-tetrachloroethane	0.790	0.752	4.8	94	0.00	8.29
101	M	trans-1,4-dichloro-2-bute	0.247	0.200	19.0	75	0.00	8.32
102	M	1,2,3-trichloropropane	0.269	0.262	2.6	94	0.00	8.35
103	M	n-propylbenzene	3.271	2.807	14.2	86	0.00	8.41
104	M	2-chlorotoluene	0.718	0.641	10.7	87	0.00	8.50
105	M	4-chlorotoluene	0.728	0.660	9.3	87	0.00	8.62
106	M	1,3,5-trimethylbenzene	2.309	2.001	13.3	86	0.00	8.58
107	M	tert-butylbenzene	0.530	0.482	9.1	85	0.00	8.89
108	M	1,2,4-trimethylbenzene	2.401	2.098	12.6	87	0.00	8.94
109	M	sec-butylbenzene	2.657	2.345	11.7	86	0.00	9.10
110	M	1,3-dichlorobenzene	1.417	1.298	8.4	89	0.00	9.22
111	M	p-isopropyltoluene	2.368	2.035	14.1	85	0.00	9.24
112	M	1,4-dichlorobenzene	1.449	1.285	11.3	89	0.00	9.32
113		1,2,3-trimethylbenzene	2.454	2.158	12.1	88	0.00	9.34
114		benzyl chloride	1.564	1.283	18.0	73	0.00	9.42
115	M	1,2-dichlorobenzene	1.331	1.225	8.0	88	0.00	9.67
116	M	n-butylbenzene	0.987	0.901	8.7	84	0.00	9.65
117	M	1,2-dibromo-3-chloropropa	0.232	0.213	8.2	84	0.00	10.43
118		1,3,5-trichlorobenzene	0.934	0.861	7.8	84	0.00	10.63
119		2-ethylhexyl acrylate		----------NA----------				
120	M	1,2,4-trichlorobenzene	0.801	0.754	5.9	83	0.00	11.26
121	M	hexachlorobutadiene	0.280	0.241	13.9	80	0.00	11.40
122	M	naphthalene	2.060	2.012	2.3	87	0.00	11.51
123	M	1,2,3-trichlorobenzene	0.659	0.628	4.7	84	0.00	11.74
124	m	hexachloroethane	0.406	0.344	15.3	78	0.00	9.95

			True	Calc.	% Drift			
125		2-methylnaphthalene	25.000	18.208	27.2#	73	0.00	12.65

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D166153.D M3D7065.M Thu Jul 15 21:42:36 2021

Run Sequence Report

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Run ID: V3D7065	**Method:** SW846 8260D	**Instrument ID:** GCMS3D

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3D7065-BFB	3D166145.D	06/29/21 20:50	n/a	BFB Tune
V3D7065-IC7065	3D166146.D	06/29/21 21:21	n/a	Initial cal 0.2
V3D7065-IC7065	3D166147.D	06/29/21 21:46	n/a	Initial cal 0.5
V3D7065-IC7065	3D166148.D	06/29/21 22:11	n/a	Initial cal 1
V3D7065-IC7065	3D166149.D	06/29/21 22:35	n/a	Initial cal 2
V3D7065-IC7065	3D166150.D	06/29/21 23:00	n/a	Initial cal 4
V3D7065-IC7065	3D166151.D	06/29/21 23:25	n/a	Initial cal 8
V3D7065-IC7065	3D166152.D	06/29/21 23:50	n/a	Initial cal 20
V3D7065-ICC7065	3D166153.D	06/30/21 00:15	n/a	Initial cal 50
V3D7065-IC7065	3D166154.D	06/30/21 00:40	n/a	Initial cal 100
V3D7065-IC7065	3D166155.D	06/30/21 01:04	n/a	Initial cal 200
V3D7065-ICV7065	3D166158.D	06/30/21 02:19	n/a	Initial cal verification 50
V3D7065-ICV7065	3D166159.D	06/30/21 02:44	n/a	Initial cal verification 50
V3D7065-BFB2	3D166161.D	06/30/21 09:53	n/a	BFB Tune
V3D7065-ICV7065	3D166162.D	06/30/21 12:30	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD28016
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY

Run ID: V3D7090	**Method:** SW846 8260D	**Instrument ID:** GCMS3D

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3D7090-BFB	3D166746.D	07/14/21 21:26	n/a	BFB Tune
V3D7090-CC7065	3D166746.D	07/14/21 21:26	n/a	Continuing cal 50
V3D7090-BS	3D166748.D	07/14/21 22:16	n/a	Blank Spike
V3D7090-MB	3D166750.D	07/14/21 23:05	n/a	Method Blank
JD28016-8	3D166751.D	07/14/21 23:30	n/a	RWSEEPS 070821
JD28016-8MS	3D166752.D	07/14/21 23:55	n/a	Matrix Spike
JD28016-8MSD	3D166753.D	07/15/21 00:20	n/a	Matrix Spike Duplicate
JD28016-9	3D166755.D	07/15/21 01:10	n/a	EQ BLANK
JD28016-10	3D166756.D	07/15/21 01:35	n/a	TRIP BLANK
ZZZZZZ	3D166757.D	07/15/21 01:59	n/a	(unrelated sample)
ZZZZZZ	3D166758.D	07/15/21 02:24	n/a	(unrelated sample)
ZZZZZZ	3D166759.D	07/15/21 02:49	n/a	(unrelated sample)
ZZZZZZ	3D166760.D	07/15/21 03:14	n/a	(unrelated sample)
JD28016-1	3D166761.D	07/15/21 03:39	n/a	BD24SEEP 070821
JD28016-2	3D166762.D	07/15/21 04:04	n/a	BD070821
JD28016-3	3D166763.D	07/15/21 04:29	n/a	OPEN DITCH 001 070821
JD28016-4	3D166764.D	07/15/21 04:53	n/a	BYPASS 070821
JD28016-5	3D166765.D	07/15/21 05:18	n/a	WBSEEPS 070821
JD28016-6	3D166766.D	07/15/21 05:43	n/a	OUTFALL 001 070821
JD28016-7	3D166767.D	07/15/21 06:08	n/a	WOODEN SLUICE 070821
ZZZZZZ	3D166768.D	07/15/21 06:33	n/a	(unrelated sample)
ZZZZZZ	3D166769.D	07/15/21 06:58	n/a	(unrelated sample)
ZZZZZZ	3D166770.D	07/15/21 07:23	n/a	(unrelated sample)

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166761.d
Acq On : 15 Jul 2021 3:39 am
Operator : BridgetK
Sample : jd28016-1 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:30:15 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

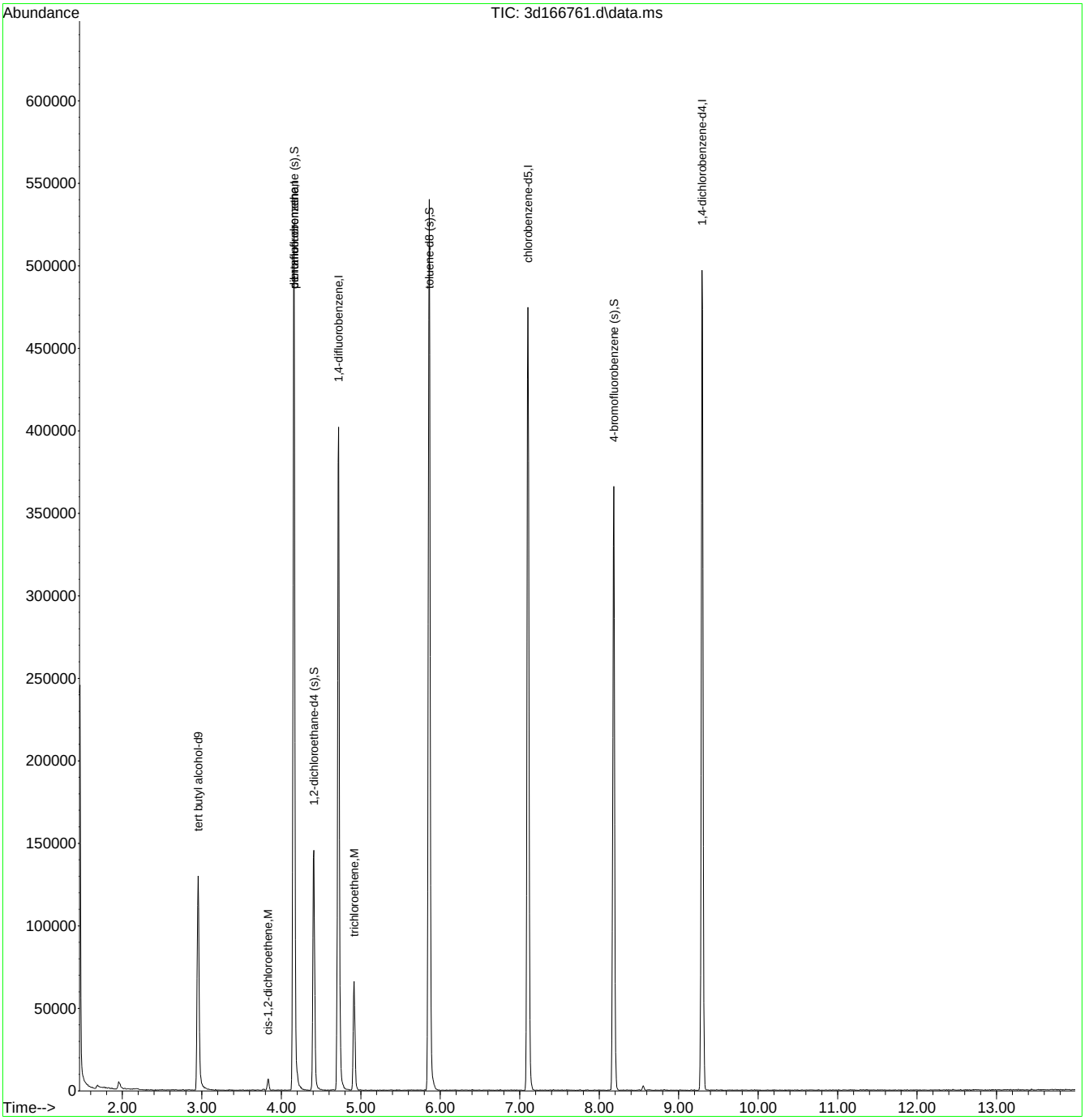
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	119997	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	213553	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	294596	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	267454	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	134324	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	85163	53.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.30%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	86766	50.04	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.08%			
74) toluene-d8 (s)	5.861	98	340773	48.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.64%			
98) 4-bromofluorobenzene (s)	8.184	95	120955	49.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.20%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	3.831	96	2843	1.74	ug/L	81
60) trichloroethene	4.916	130	20384	11.58	ug/L	97

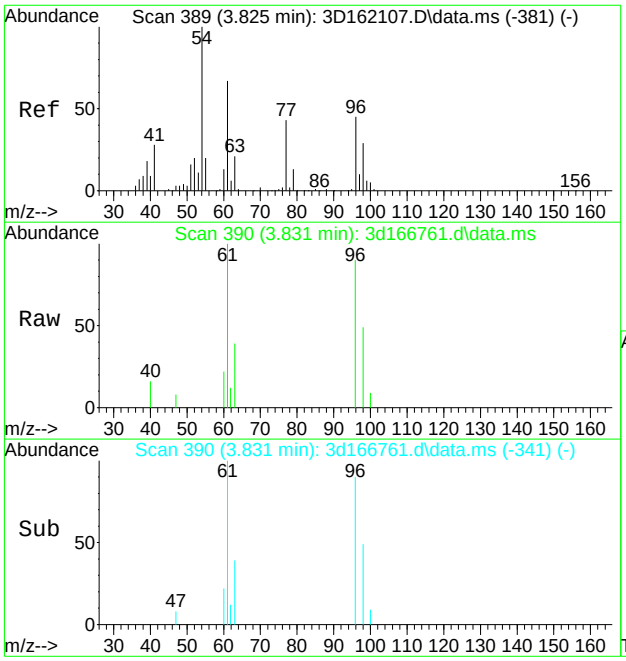
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166761.d
Acq On : 15 Jul 2021 3:39 am
Operator : BridgetK
Sample : jd28016-1 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:30:15 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

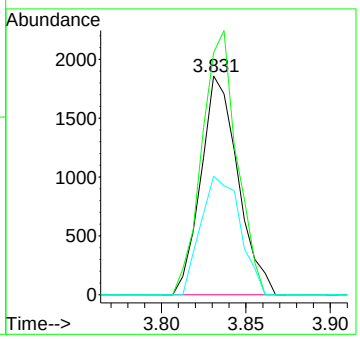


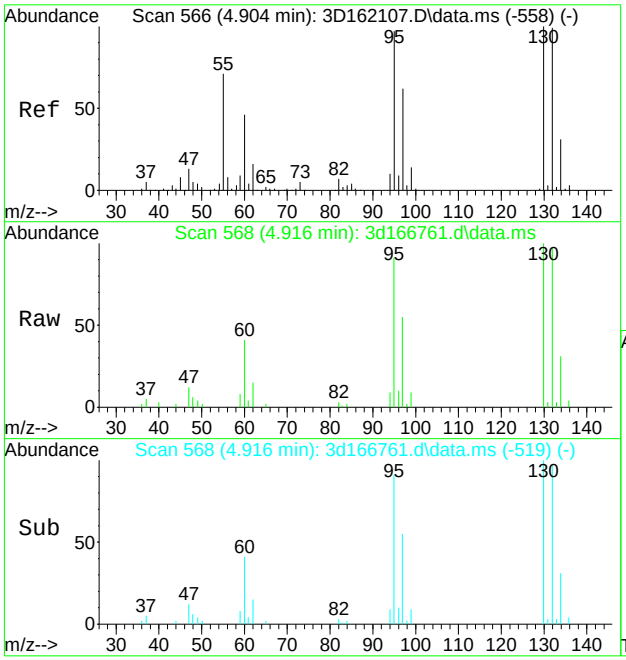


#36
cis-1,2-dichloroethene
Concen: 1.74 ug/L
RT: 3.831 min Scan# 390
Delta R.T. -0.000 min
Lab File: 3d166761.d
Acq: 15 Jul 2021 3:39 am

Tgt Ion: 96 Resp: 2843

Ion	Ratio	Lower	Upper
96	100		
61	110.6	105.3	165.3
98	54.2	35.5	95.5

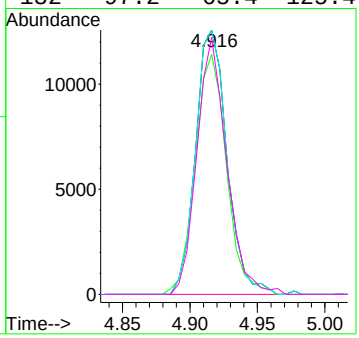




#60
trichloroethene
Concen: 11.58 ug/L
RT: 4.916 min Scan# 568
Delta R.T. -0.000 min
Lab File: 3d166761.d
Acq: 15 Jul 2021 3:39 am

Tgt Ion:130 Resp: 20384

Ion	Ratio	Lower	Upper
130	100		
95	90.9	54.1	114.1
130	100.0	70.0	130.0
132	97.2	65.4	125.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166762.d
Acq On : 15 Jul 2021 4:04 am
Operator : BridgetK
Sample : jd28016-2 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:30:46 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

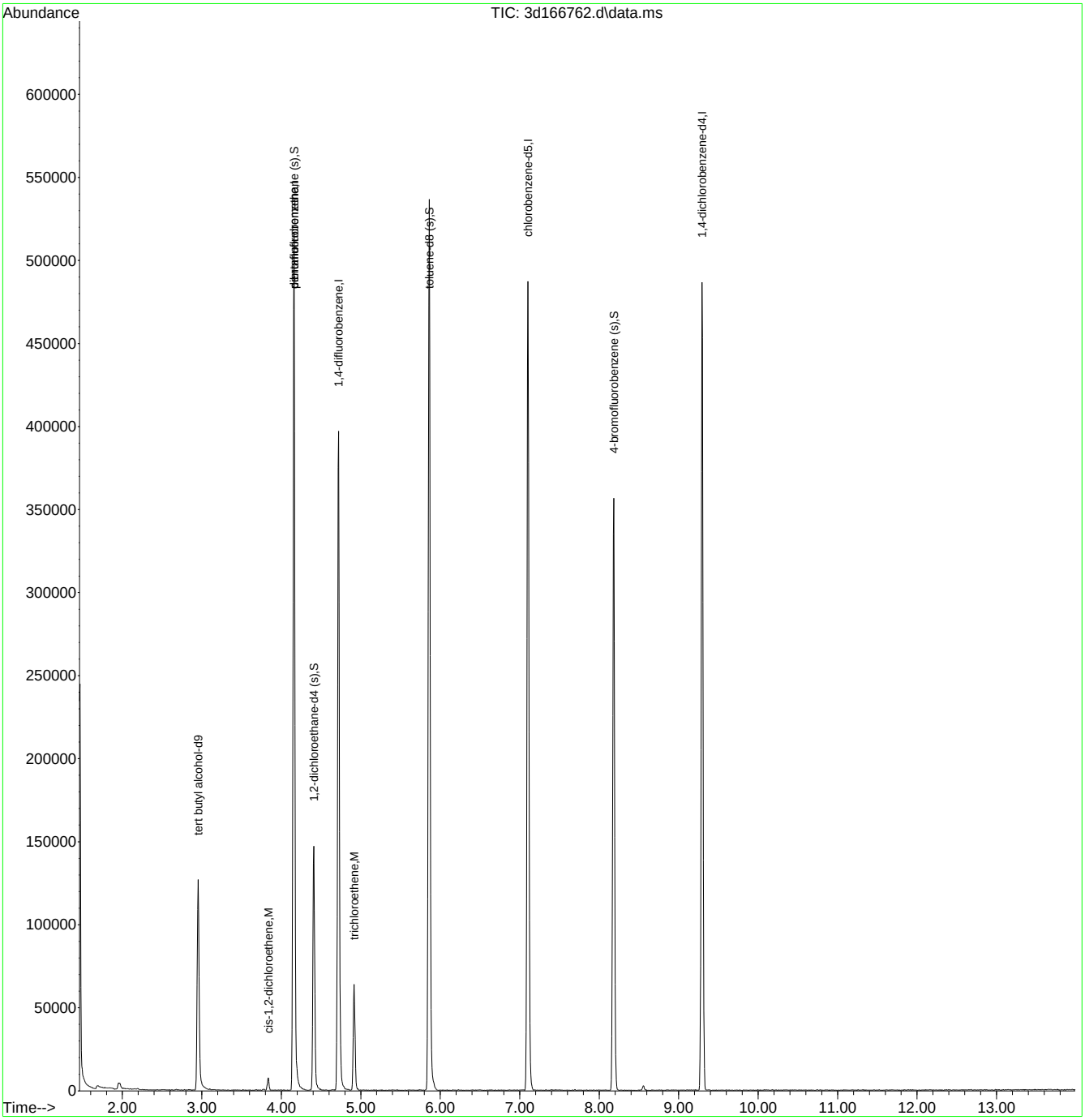
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	114970	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	210271	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	292319	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	267380	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	131161	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	84253	53.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.80%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	85643	49.78	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.56%			
74) toluene-d8 (s)	5.861	98	341127	48.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.78%			
98) 4-bromofluorobenzene (s)	8.184	95	118676	49.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.68%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	3.837	96	3021	1.88	ug/L #	69
60) trichloroethene	4.916	130	19834	11.36	ug/L	98

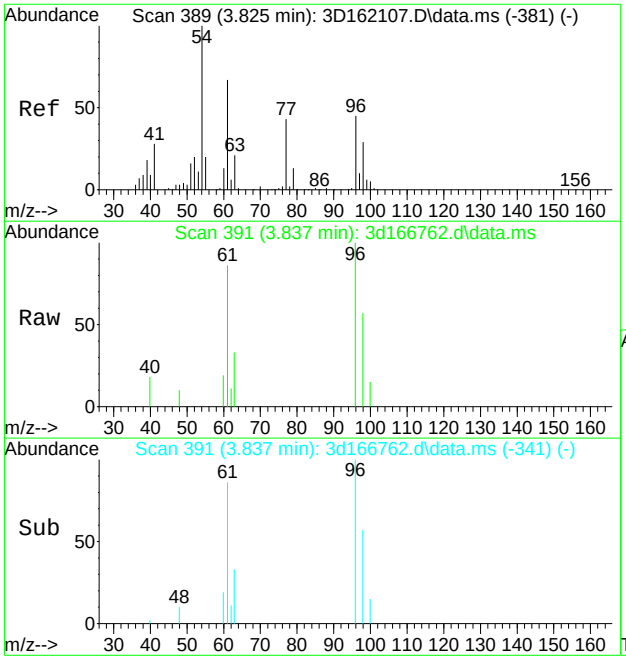
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166762.d
Acq On : 15 Jul 2021 4:04 am
Operator : BridgetK
Sample : jd28016-2 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:30:46 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

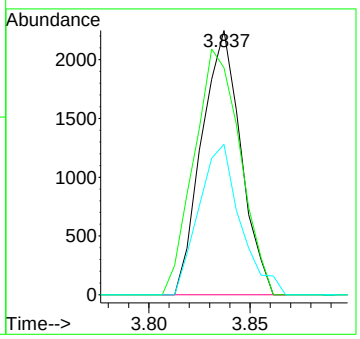


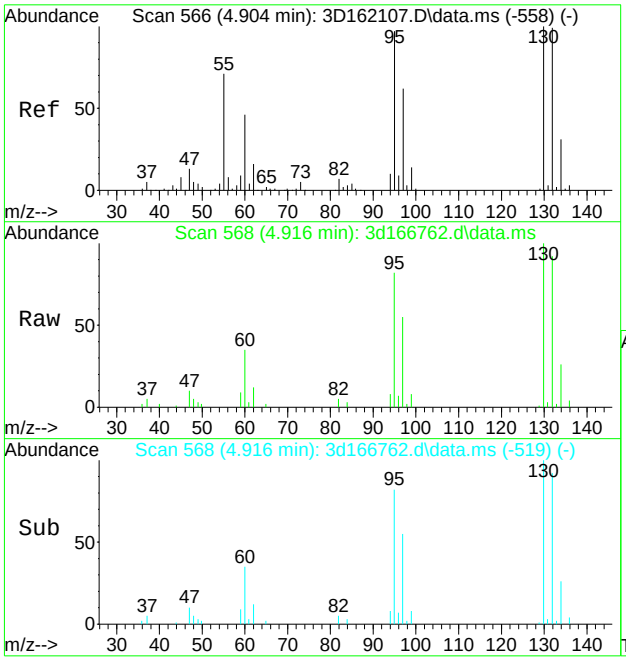


#36
cis-1,2-dichloroethene
Concen: 1.88 ug/L
RT: 3.837 min Scan# 391
Delta R.T. 0.006 min
Lab File: 3d166762.d
Acq: 15 Jul 2021 4:04 am

Tgt Ion: 96 Resp: 3021

Ion	Ratio	Lower	Upper
96	100		
61	85.9	105.3	165.3#
98	56.9	35.5	95.5

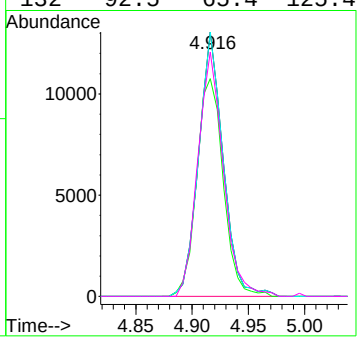




#60
trichloroethene
Concen: 11.36 ug/L
RT: 4.916 min Scan# 568
Delta R.T. -0.000 min
Lab File: 3d166762.d
Acq: 15 Jul 2021 4:04 am

Tgt Ion:130 Resp: 19834

Ion	Ratio	Lower	Upper
130	100		
95	82.3	54.1	114.1
130	100.0	70.0	130.0
132	92.5	65.4	125.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166763.d
Acq On : 15 Jul 2021 4:29 am
Operator : BridgetK
Sample : jd28016-3 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:31:27 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

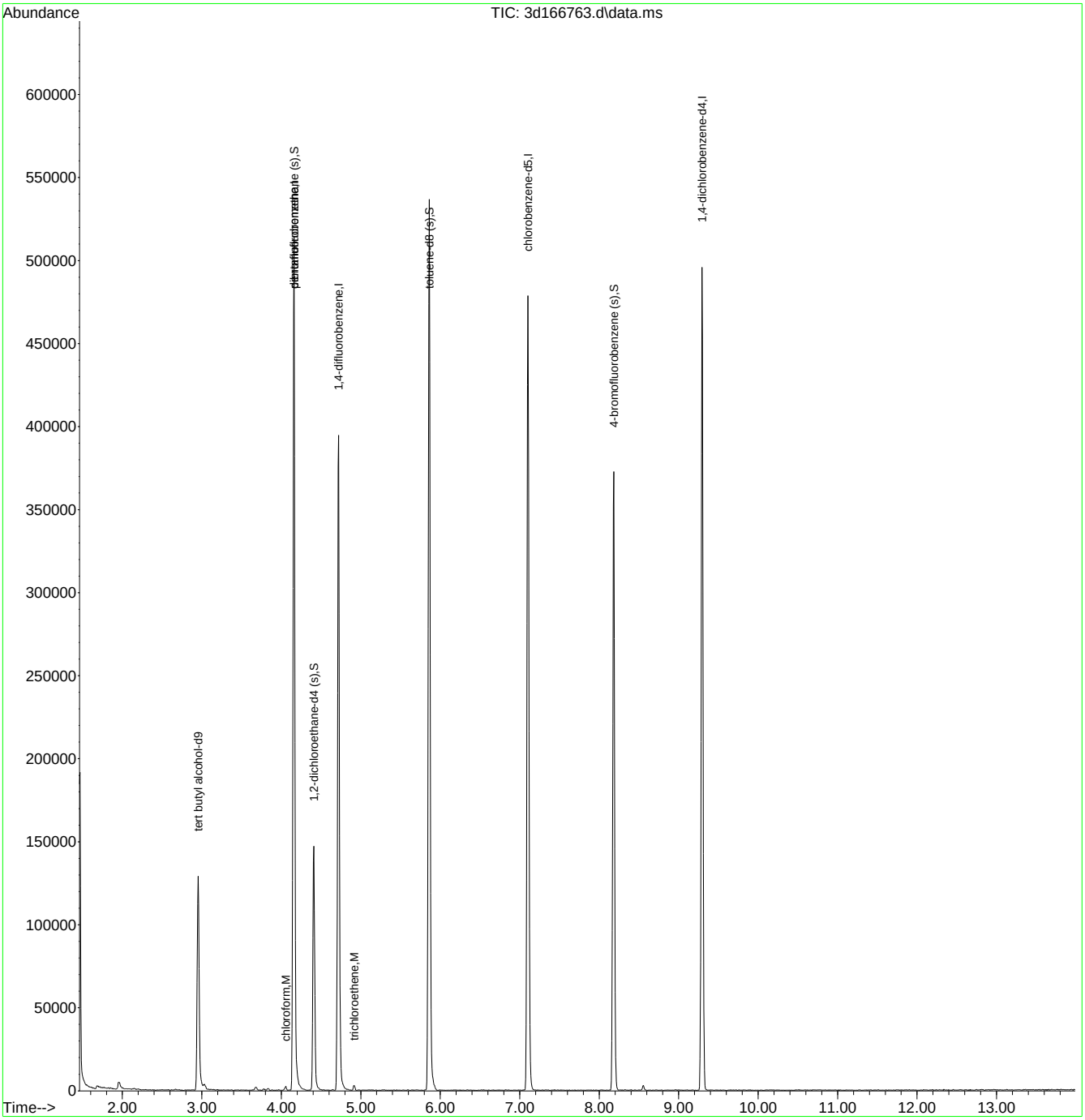
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	119308	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	207762	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	289057	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	265772	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	134819	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	83285	53.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.84%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	87139	51.22	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.44%			
74) toluene-d8 (s)	5.861	98	338720	48.83	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.66%			
98) 4-bromofluorobenzene (s)	8.184	95	121756	49.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.48%			
Target Compounds						Qvalue
41) chloroform	4.057	85	912	0.52	ug/L #	79
60) trichloroethene	4.916	130	886	0.51	ug/L	89

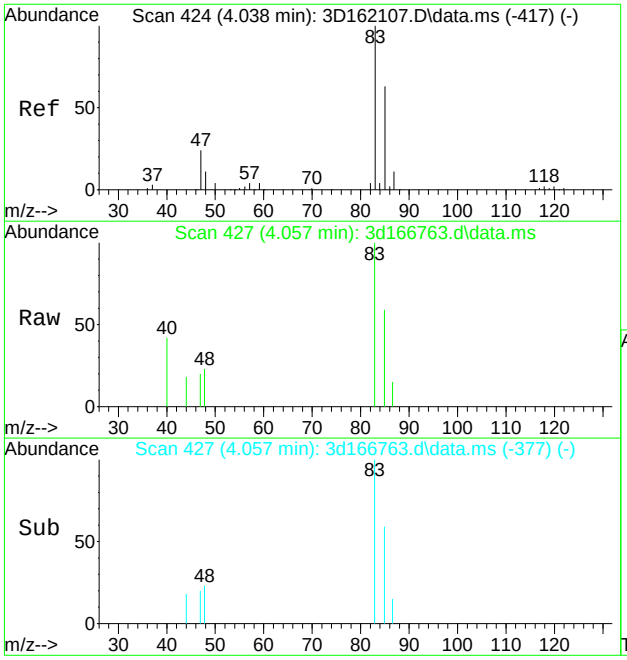
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166763.d
Acq On : 15 Jul 2021 4:29 am
Operator : BridgetK
Sample : jd28016-3 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:31:27 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

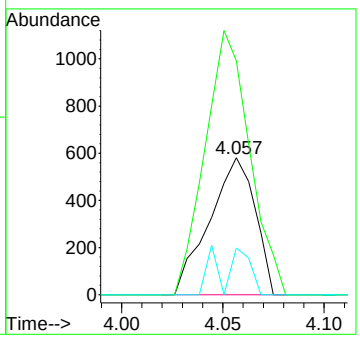


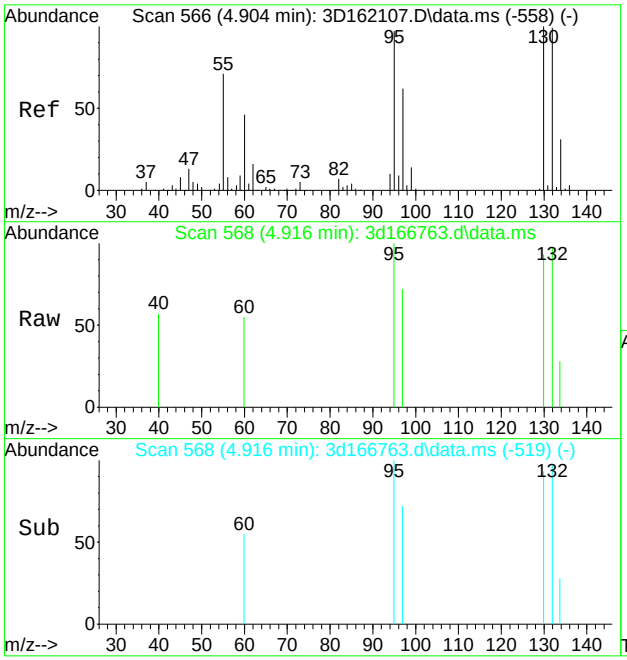


#41
chloroform
Concen: 0.52 ug/L
RT: 4.057 min Scan# 427
Delta R.T. 0.006 min
Lab File: 3d166763.d
Acq: 15 Jul 2021 4:29 am

Tgt Ion: 85 Resp: 912

Ion	Ratio	Lower	Upper
85	100		
83	170.7	125.2	185.2
47	73.8	7.8	67.8#

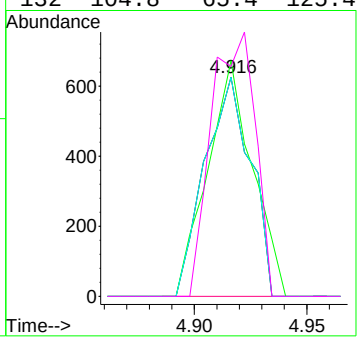




#60
trichloroethene
Concen: 0.51 ug/L
RT: 4.916 min Scan# 568
Delta R.T. -0.000 min
Lab File: 3d166763.d
Acq: 15 Jul 2021 4:29 am

Tgt Ion:130 Resp: 886

Ion	Ratio	Lower	Upper
130	100		
95	107.5	54.1	114.1
130	100.0	70.0	130.0
132	104.8	65.4	125.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166764.d
Acq On : 15 Jul 2021 4:53 am
Operator : BridgetK
Sample : jd28016-4 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:32:08 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

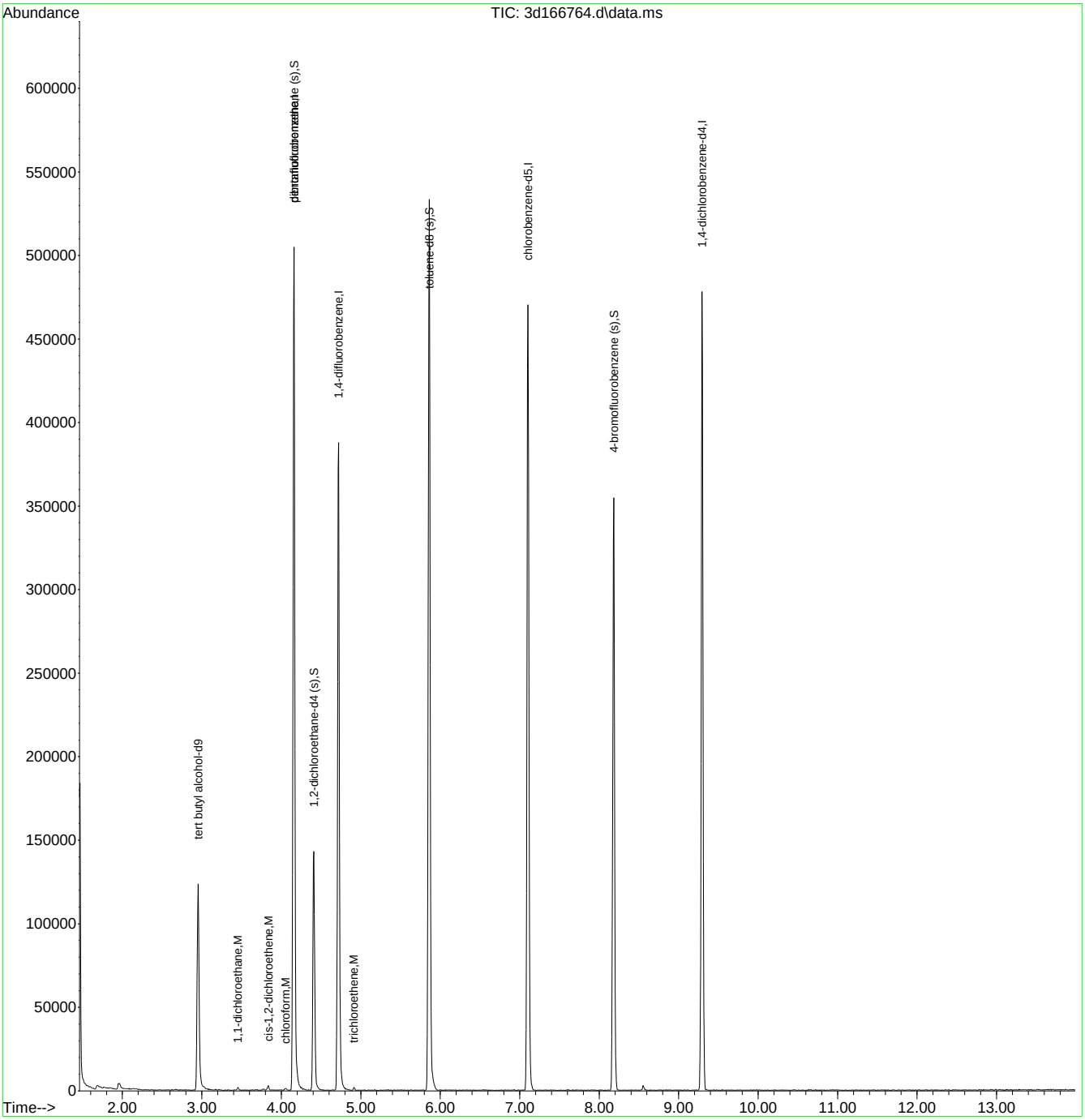
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	111101	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	207009	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	288366	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	260699	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	128215	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	82422	53.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.12%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	84005	49.50	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.00%			
74) toluene-d8 (s)	5.861	98	338515	49.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%			
98) 4-bromofluorobenzene (s)	8.184	95	116225	49.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.86%			
Target Compounds						Qvalue
28) 1,1-dichloroethane	3.453	63	1234	0.49	ug/L	93
36) cis-1,2-dichloroethene	3.837	96	1169	0.74	ug/L #	58
41) chloroform	4.051	85	551	0.32	ug/L #	79
60) trichloroethene	4.910	130	519	0.30	ug/L	87

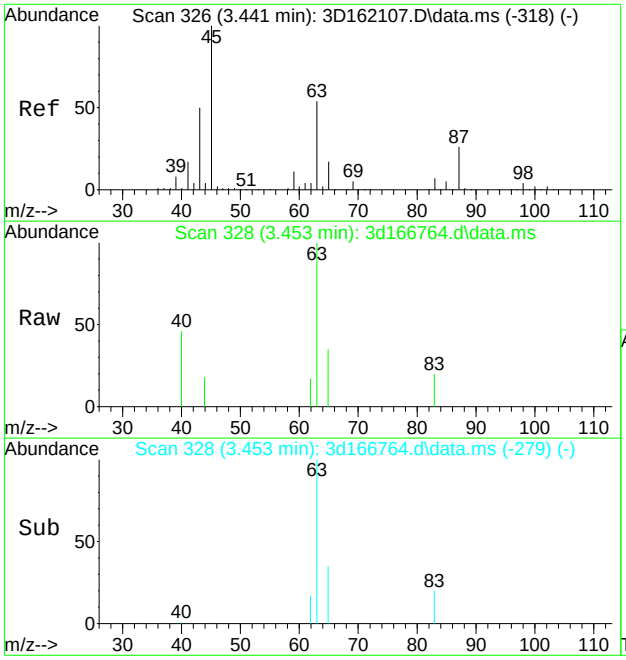
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166764.d
Acq On : 15 Jul 2021 4:53 am
Operator : BridgetK
Sample : jd28016-4 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:32:08 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

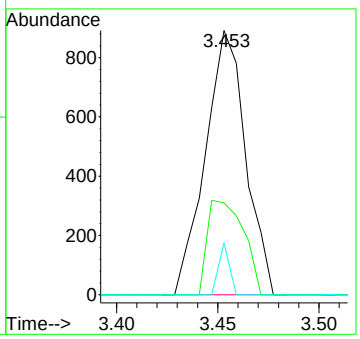


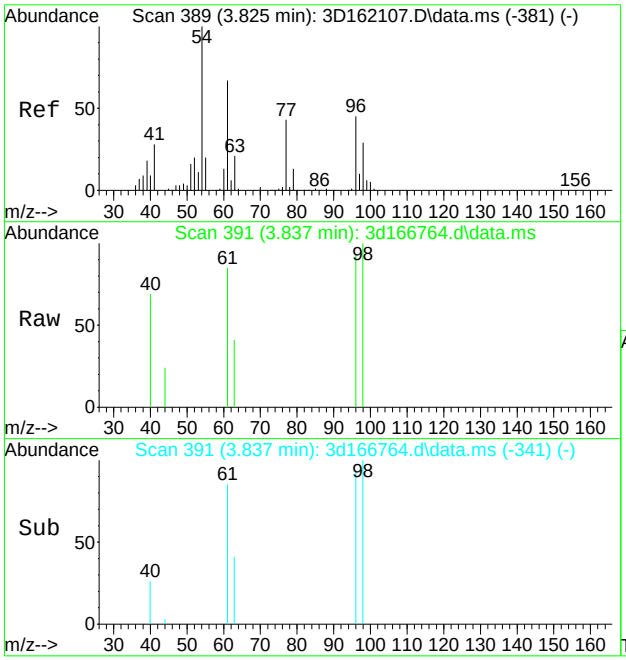


#28
1,1-dichloroethane
Concen: 0.49 ug/L
RT: 3.453 min Scan# 328
Delta R.T. -0.000 min
Lab File: 3d166764.d
Acq: 15 Jul 2021 4:53 am

Tgt Ion: 63 Resp: 1234

Ion	Ratio	Lower	Upper
63	100		
65	34.8	2.7	62.7
83	19.6	0.0	43.4

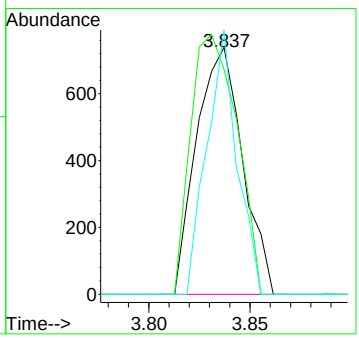


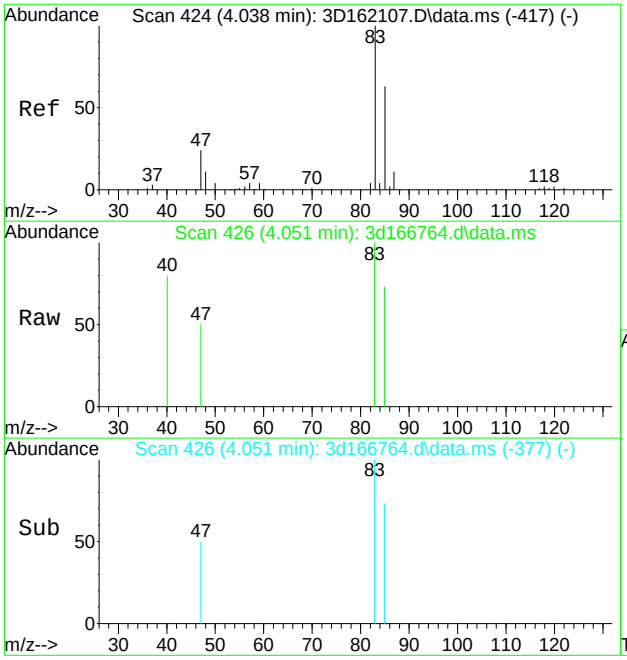


#36
cis-1,2-dichloroethene
Concen: 0.74 ug/L
RT: 3.837 min Scan# 391
Delta R.T. 0.006 min
Lab File: 3d166764.d
Acq: 15 Jul 2021 4:53 am

Tgt Ion: 96 Resp: 1169

Ion	Ratio	Lower	Upper
96	100		
61	91.1	105.3	165.3#
98	107.0	35.5	95.5#

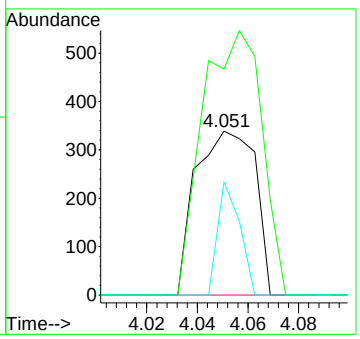


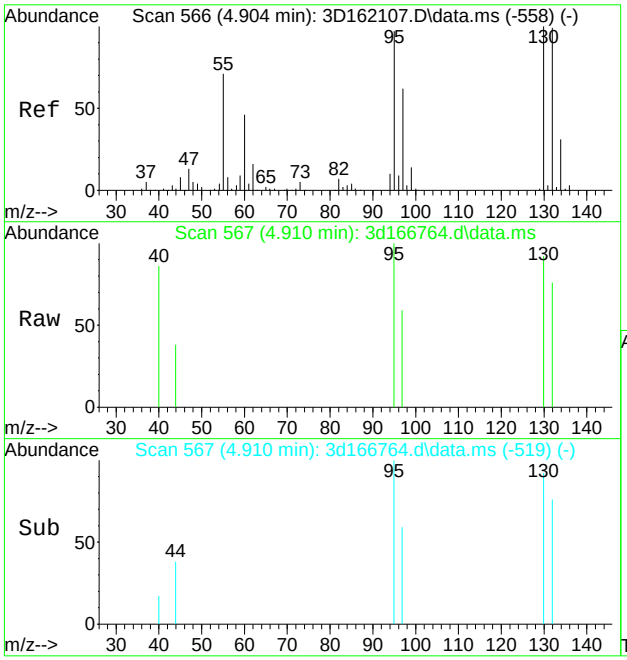


#41
chloroform
Concen: 0.32 ug/L
RT: 4.051 min Scan# 426
Delta R.T. -0.000 min
Lab File: 3d166764.d
Acq: 15 Jul 2021 4:53 am

Tgt Ion: 85 Resp: 551

Ion	Ratio	Lower	Upper
85	100		
83	137.8	125.2	185.2
47	69.0	7.8	67.8#

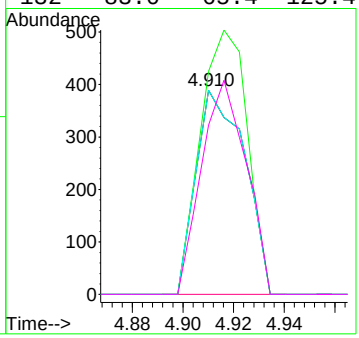




#60
trichloroethene
Concen: 0.30 ug/L
RT: 4.910 min Scan# 567
Delta R.T. -0.006 min
Lab File: 3d166764.d
Acq: 15 Jul 2021 4:53 am

Tgt Ion:130 Resp: 519

Ion	Ratio	Lower	Upper
130	100		
95	109.3	54.1	114.1
130	100.0	70.0	130.0
132	83.0	65.4	125.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166765.d
Acq On : 15 Jul 2021 5:18 am
Operator : BridgetK
Sample : jd28016-5 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:36:16 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

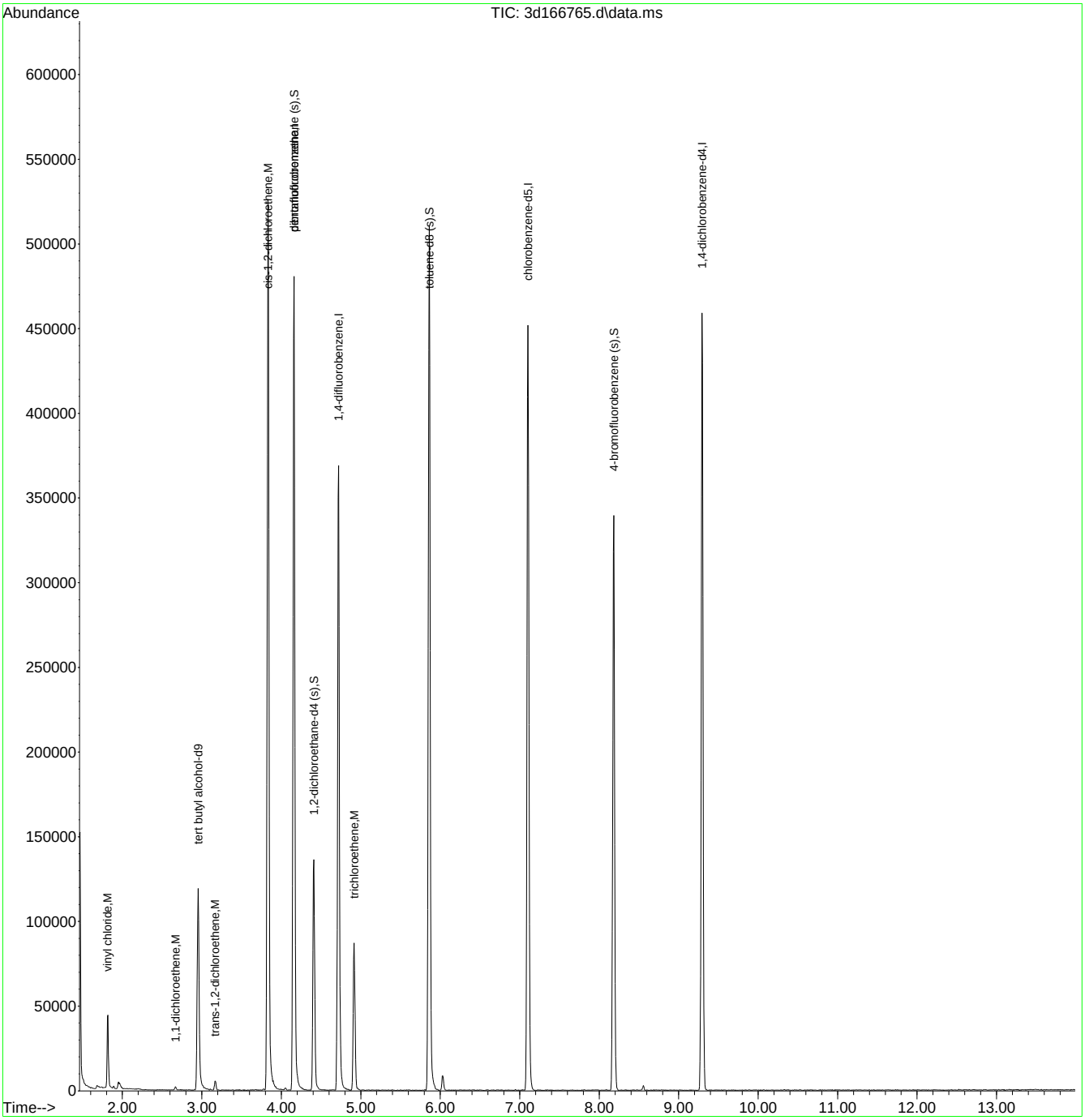
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	106863	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	196906	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	272136	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	252047	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	125143	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	79174	53.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.18%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	78740	49.16	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.32%			
74) toluene-d8 (s)	5.861	98	323213	49.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.28%			
98) 4-bromofluorobenzene (s)	8.184	95	113848	49.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%			
Target Compounds						Qvalue
9) vinyl chloride	1.813	62	31662	13.59	ug/L	93
17) 1,1-dichloroethene	2.667	96	328	0.28	ug/L	94
25) trans-1,2-dichloroethene	3.166	96	1773	1.32	ug/L	92
36) cis-1,2-dichloroethene	3.831	96	203466	135.01	ug/L	92
60) trichloroethene	4.916	130	27010	16.62	ug/L	95

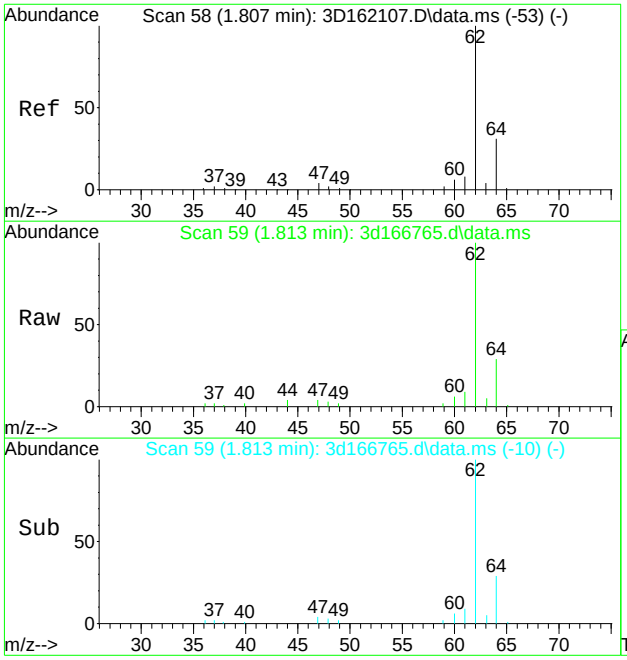
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166765.d
Acq On : 15 Jul 2021 5:18 am
Operator : BridgetK
Sample : jd28016-5 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:36:16 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

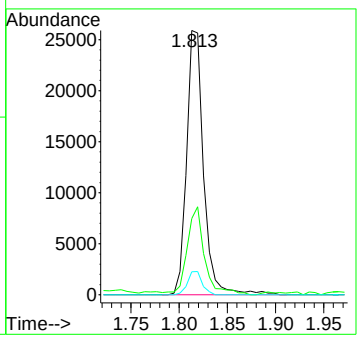


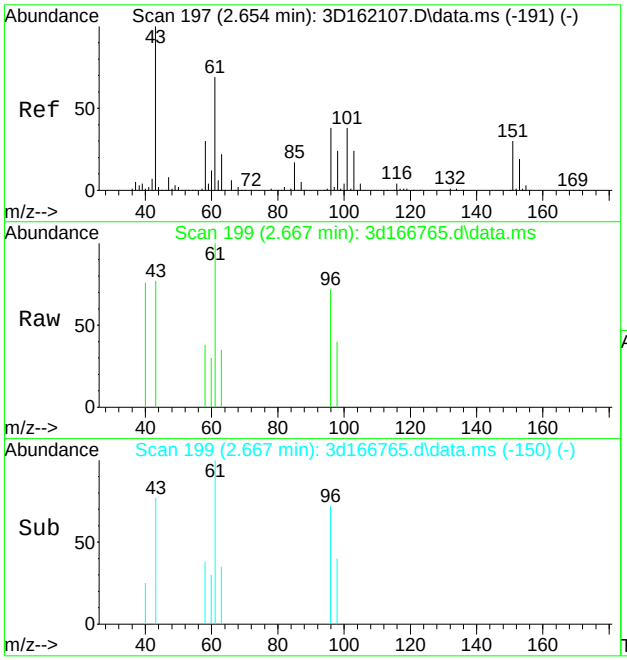


#9
vinyl chloride
Concen: 13.59 ug/L
RT: 1.813 min Scan# 59
Delta R.T. -0.000 min
Lab File: 3d166765.d
Acq: 15 Jul 2021 5:18 am

Tgt Ion: 62 Resp: 31662

Ion	Ratio	Lower	Upper
62	100		
64	28.2	2.7	62.7
61	8.7	0.0	38.2

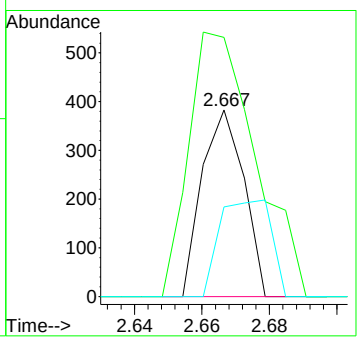


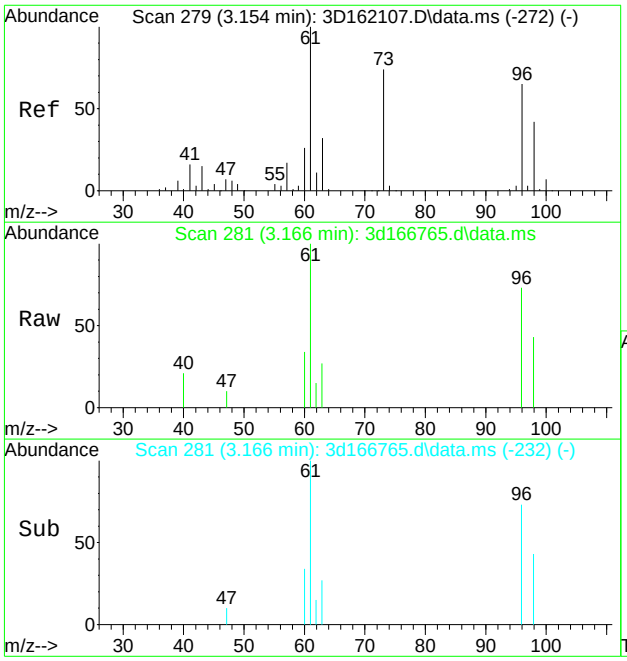


#17
1,1-dichloroethene
Concen: 0.28 ug/L
RT: 2.667 min Scan# 199
Delta R.T. -0.000 min
Lab File: 3d166765.d
Acq: 15 Jul 2021 5:18 am

Tgt Ion: 96 Resp: 328

Ion	Ratio	Lower	Upper
96	100		
61	138.9	119.5	179.5
63	48.0	17.8	77.8

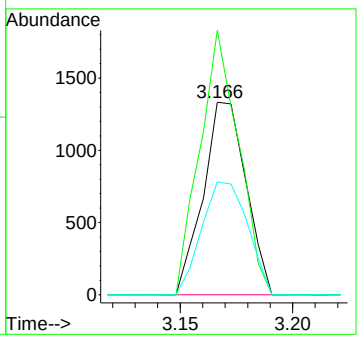


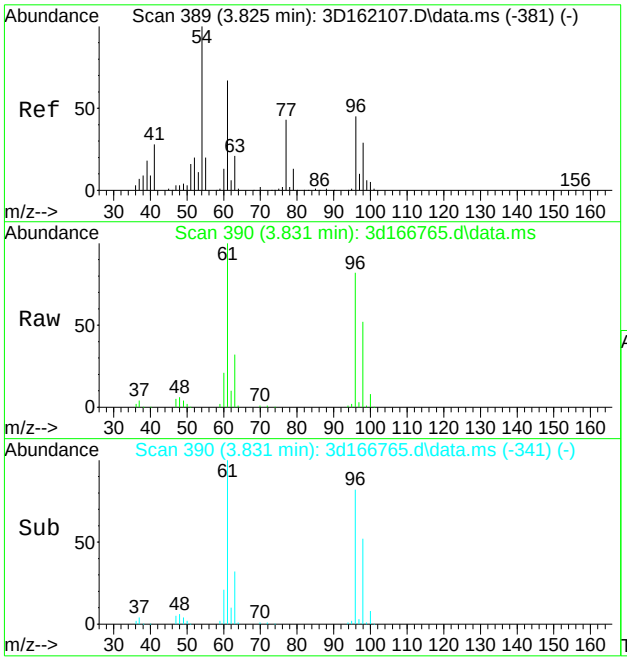


#25
trans-1,2-dichloroethene
Concen: 1.32 ug/L
RT: 3.166 min Scan# 281
Delta R.T. -0.000 min
Lab File: 3d166765.d
Acq: 15 Jul 2021 5:18 am

Tgt Ion: 96 Resp: 1773

Ion	Ratio	Lower	Upper
96	100		
61	137.3	98.2	158.2
98	58.6	34.1	94.1

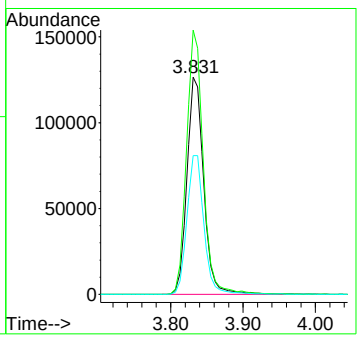


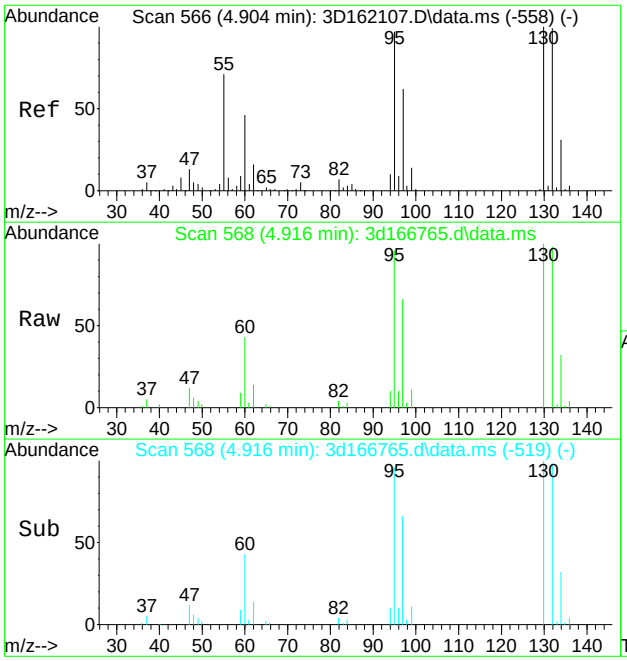


#36
cis-1,2-dichloroethene
Concen: 135.01 ug/L
RT: 3.831 min Scan# 390
Delta R.T. -0.000 min
Lab File: 3d166765.d
Acq: 15 Jul 2021 5:18 am

Tgt Ion: 96 Resp: 203466

Ion	Ratio	Lower	Upper
96	100		
61	121.7	105.3	165.3
98	63.9	35.5	95.5

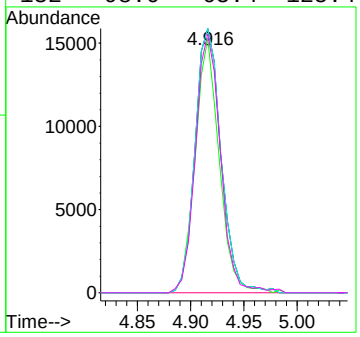




#60
trichloroethene
Concen: 16.62 ug/L
RT: 4.916 min Scan# 568
Delta R.T. -0.000 min
Lab File: 3d166765.d
Acq: 15 Jul 2021 5:18 am

Tgt Ion:130 Resp: 27010

Ion	Ratio	Lower	Upper
130	100		
95	96.2	54.1	114.1
130	100.0	70.0	130.0
132	98.0	65.4	125.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166766.d
Acq On : 15 Jul 2021 5:43 am
Operator : BridgetK
Sample : jd28016-6 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:37:21 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

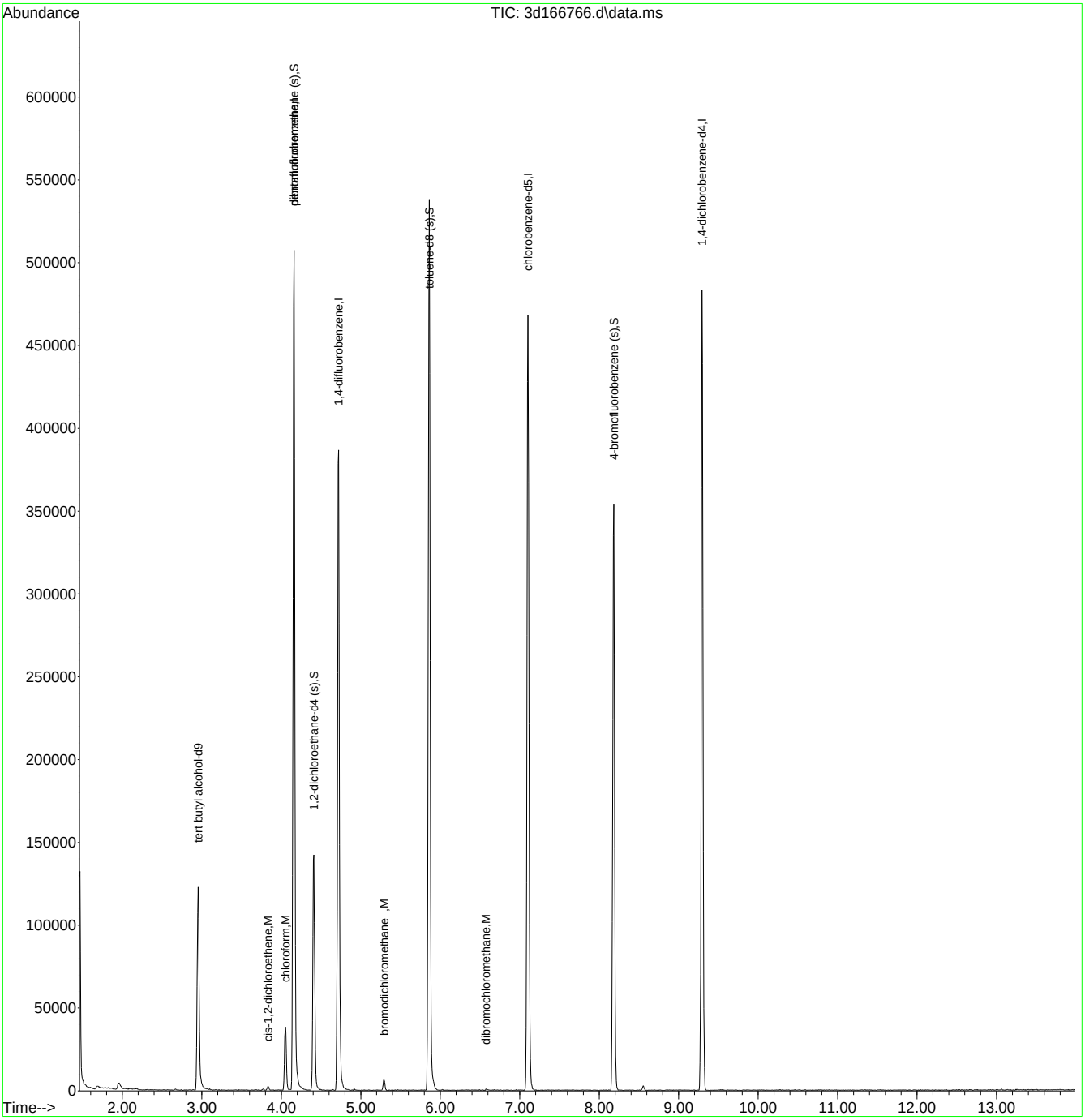
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	112744	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	206697	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	290501	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	263064	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	128503	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	83905	54.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.20%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	85418	49.96	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.92%			
74) toluene-d8 (s)	5.861	98	340334	49.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%			
98) 4-bromofluorobenzene (s)	8.184	95	117329	49.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.56%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	3.831	96	1050	0.66	ug/L	# 74
41) chloroform	4.051	85	16580	9.52	ug/L	97
68) bromodichloromethane	5.294	83	3785	1.90	ug/L	89
83) dibromochloromethane	6.574	129	527	0.30	ug/L	70

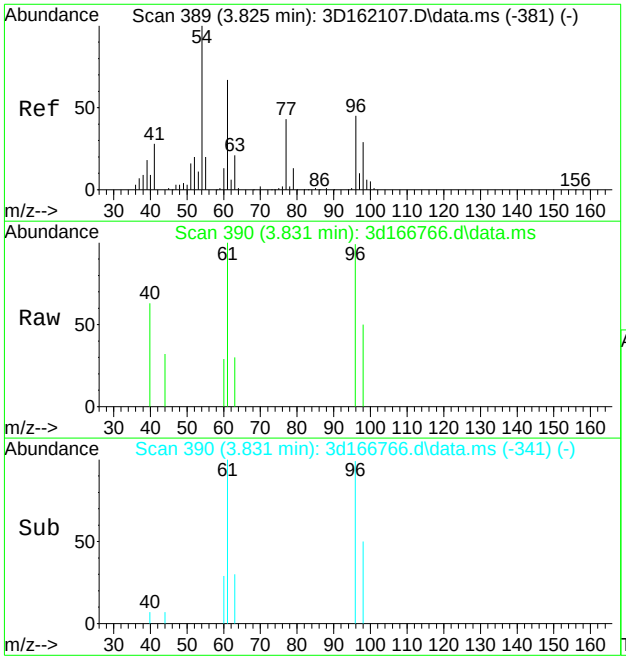
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166766.d
Acq On : 15 Jul 2021 5:43 am
Operator : BridgetK
Sample : jd28016-6 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:37:21 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

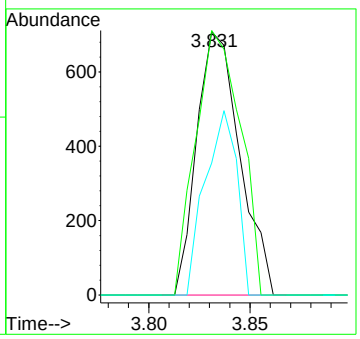


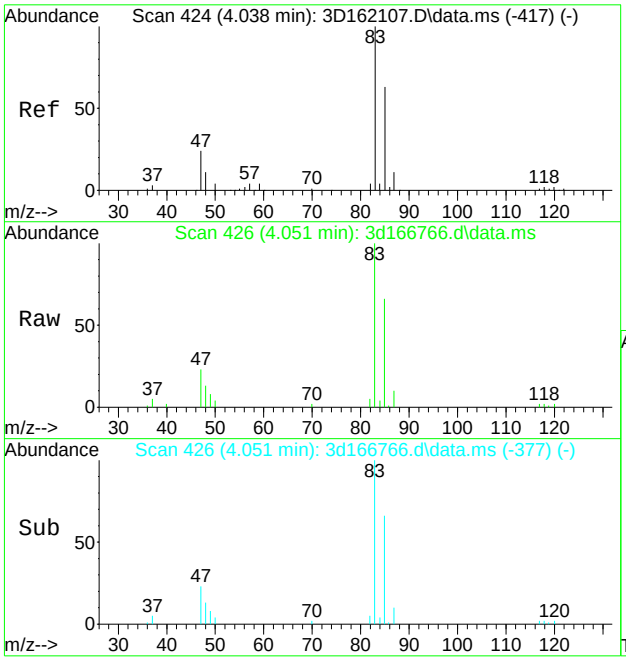


#36
cis-1,2-dichloroethene
Concen: 0.66 ug/L
RT: 3.831 min Scan# 390
Delta R.T. -0.000 min
Lab File: 3d166766.d
Acq: 15 Jul 2021 5:43 am

Tgt Ion: 96 Resp: 1050

Ion	Ratio	Lower	Upper
96	100		
61	100.6	105.3	165.3#
98	50.1	35.5	95.5

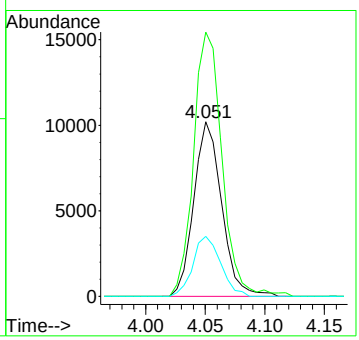


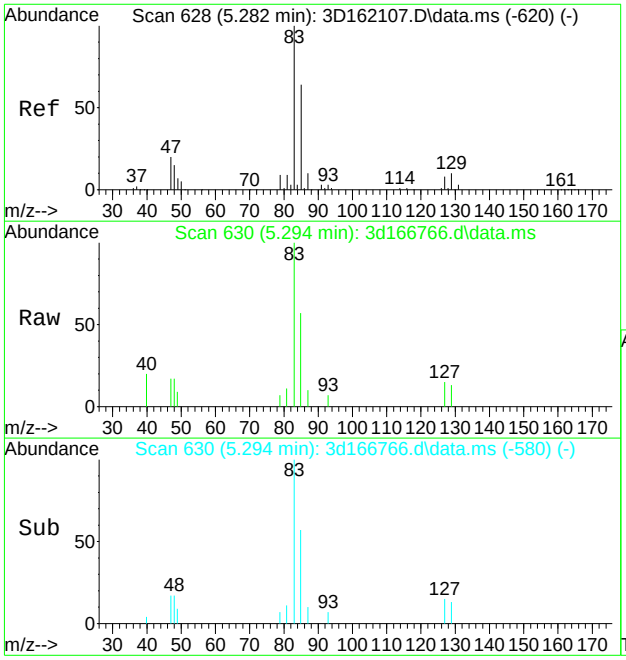


#41
chloroform
Concen: 9.52 ug/L
RT: 4.051 min Scan# 426
Delta R.T. -0.000 min
Lab File: 3d166766.d
Acq: 15 Jul 2021 5:43 am

Tgt Ion: 85 Resp: 16580

Ion	Ratio	Lower	Upper
85	100		
83	151.5	125.2	185.2
47	34.4	7.8	67.8

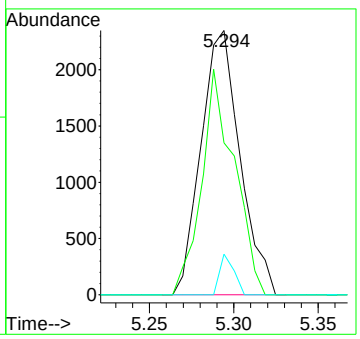


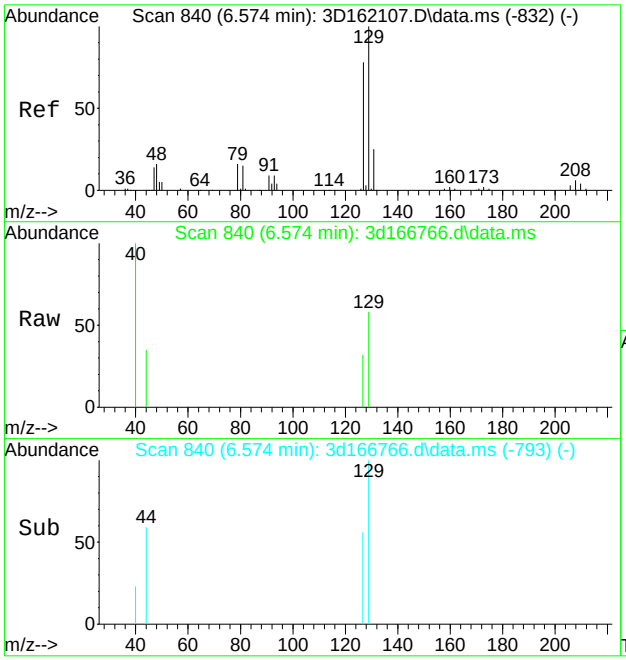


#68
bromodichloromethane
Concen: 1.90 ug/L
RT: 5.294 min Scan# 630
Delta R.T. 0.006 min
Lab File: 3d166766.d
Acq: 15 Jul 2021 5:43 am

Tgt Ion: 83 Resp: 3785

Ion	Ratio	Lower	Upper
83	100		
85	57.4	35.1	95.1
127	15.3	0.0	39.1

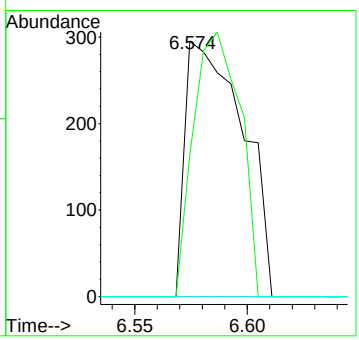




#83
dibromochloromethane
Concen: 0.30 ug/L
RT: 6.574 min Scan# 840
Delta R.T. -0.012 min
Lab File: 3d166766.d
Acq: 15 Jul 2021 5:43 am

Tgt Ion:129 Resp: 527

Ion	Ratio	Lower	Upper
129	100		
127	55.6	46.4	106.4
131	0.0	0.0	54.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166767.d
Acq On : 15 Jul 2021 6:08 am
Operator : BridgetK
Sample : jd28016-7 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:37:49 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

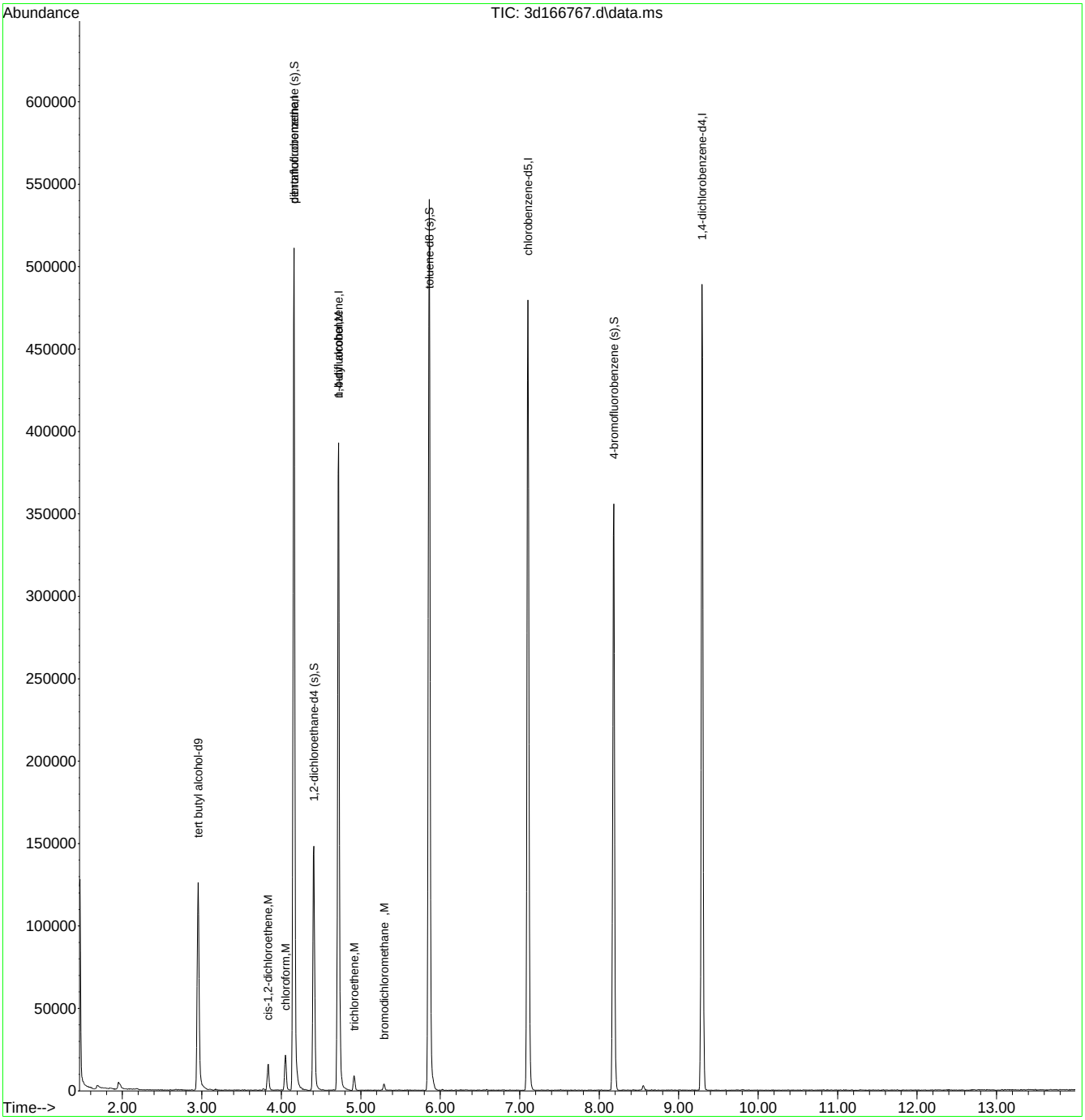
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	113953	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	206407	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	286703	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	262112	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	131179	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	84061	54.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.54%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	86878	51.49	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.98%			
74) toluene-d8 (s)	5.861	98	336964	49.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.52%			
98) 4-bromofluorobenzene (s)	8.184	95	117020	48.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.28%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	3.831	96	6020	3.81	ug/L	91
41) chloroform	4.051	85	8861	5.09	ug/L	95
53) n-butyl alcohol	4.721	56	5148	72.18	ug/L #	21
60) trichloroethene	4.916	130	2909	1.70	ug/L	90
68) bromodichloromethane	5.294	83	2313	1.18	ug/L	82

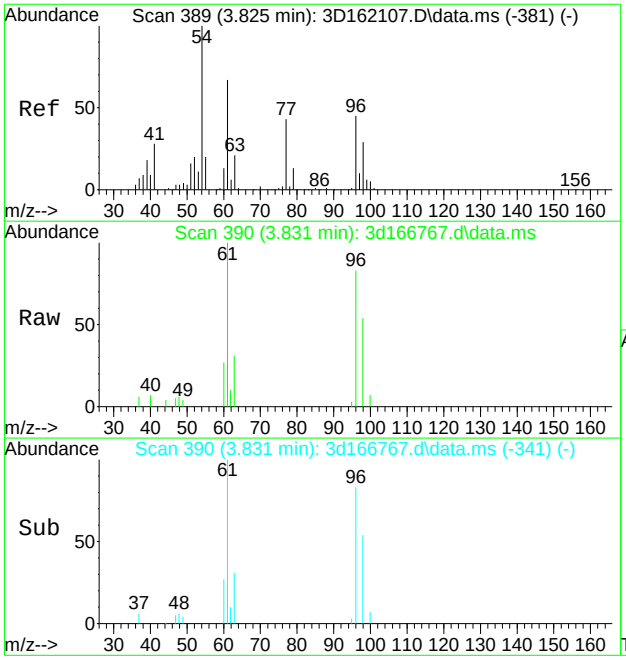
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166767.d
Acq On : 15 Jul 2021 6:08 am
Operator : BridgetK
Sample : jd28016-7 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:37:49 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

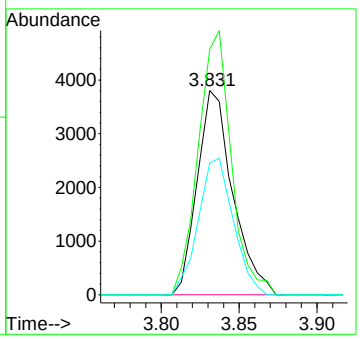


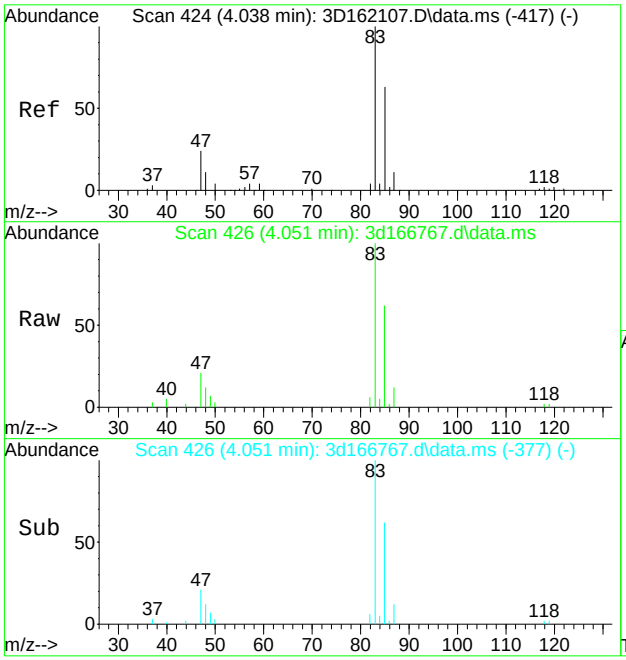


#36
cis-1,2-dichloroethene
Concen: 3.81 ug/L
RT: 3.831 min Scan# 390
Delta R.T. -0.000 min
Lab File: 3d166767.d
Acq: 15 Jul 2021 6:08 am

Tgt Ion: 96 Resp: 6020

Ion	Ratio	Lower	Upper
96	100		
61	120.2	105.3	165.3
98	64.5	35.5	95.5

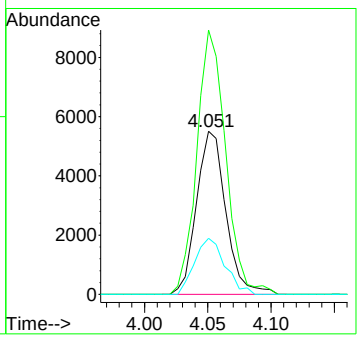


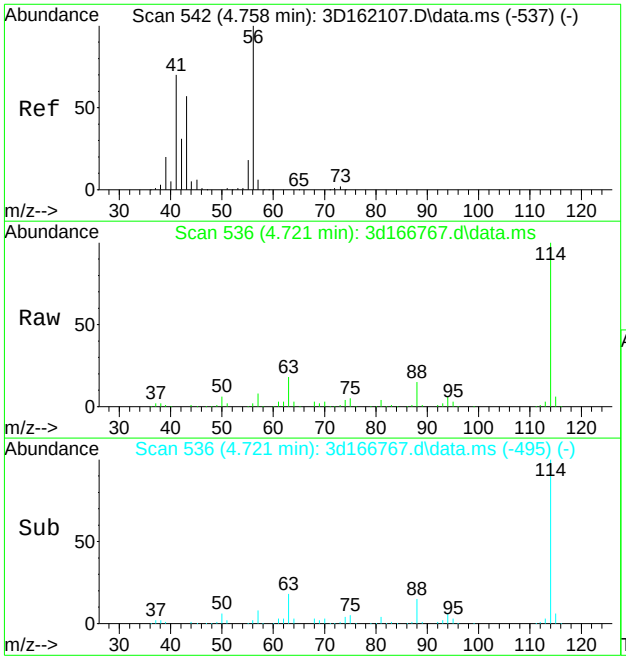


#41
chloroform
Concen: 5.09 ug/L
RT: 4.051 min Scan# 426
Delta R.T. -0.000 min
Lab File: 3d166767.d
Acq: 15 Jul 2021 6:08 am

Tgt Ion: 85 Resp: 8861

Ion	Ratio	Lower	Upper
85	100		
83	162.0	125.2	185.2
47	34.3	7.8	67.8

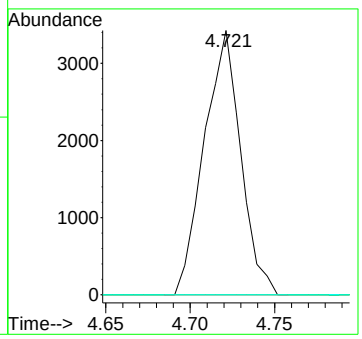


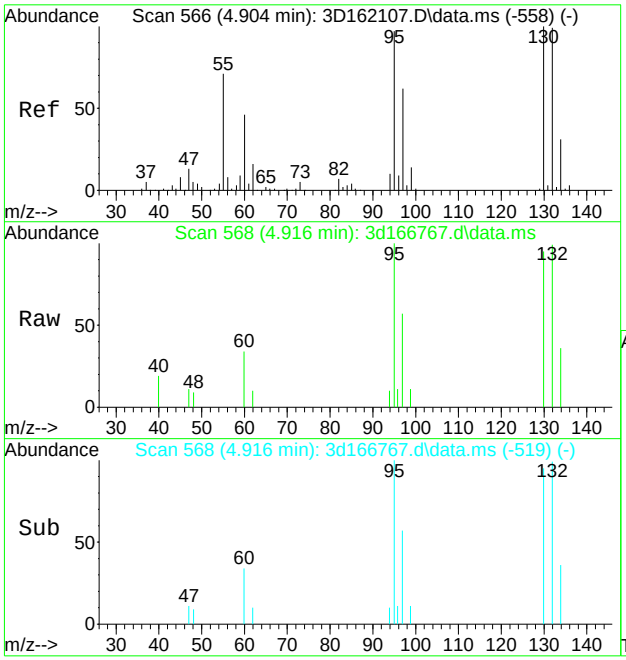


#53
n-butyl alcohol
Concen: 72.18 ug/L
RT: 4.721 min Scan# 536
Delta R.T. -0.049 min
Lab File: 3d166767.d
Acq: 15 Jul 2021 6:08 am

Tgt Ion: 56 Resp: 5148

Ion	Ratio	Lower	Upper
56	100		
41	0.0	35.3	95.3#
43	0.0	22.7	82.7#

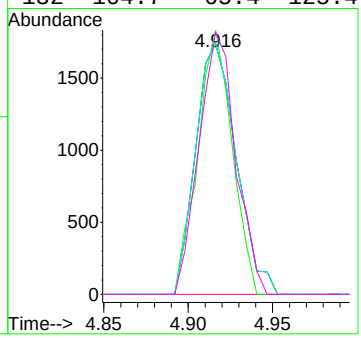


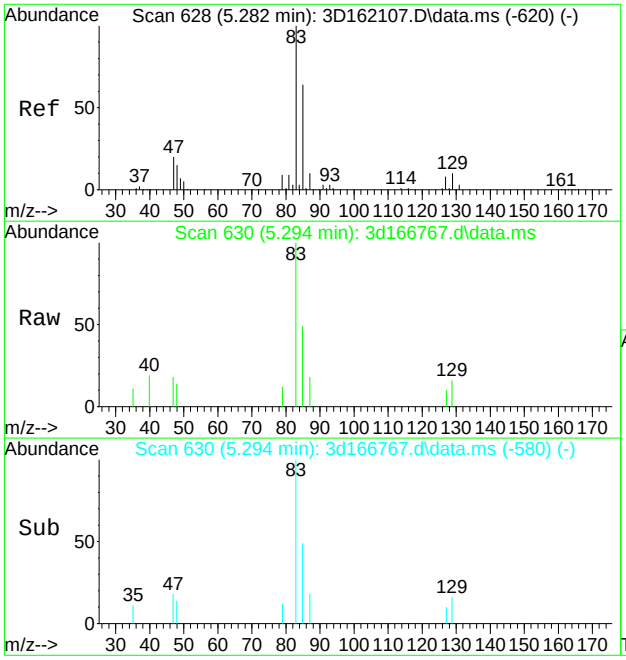


#60
trichloroethene
Concen: 1.70 ug/L
RT: 4.916 min Scan# 568
Delta R.T. -0.000 min
Lab File: 3d166767.d
Acq: 15 Jul 2021 6:08 am

Tgt Ion:130 Resp: 2909

Ion	Ratio	Lower	Upper
130	100		
95	105.5	54.1	114.1
130	100.0	70.0	130.0
132	104.7	65.4	125.4

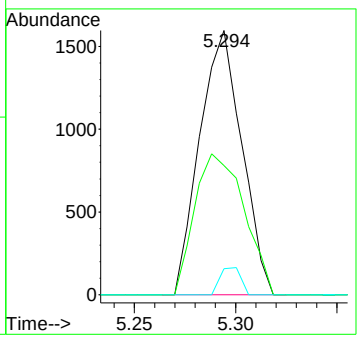




#68
bromodichloromethane
Concen: 1.18 ug/L
RT: 5.294 min Scan# 630
Delta R.T. 0.006 min
Lab File: 3d166767.d
Acq: 15 Jul 2021 6:08 am

Tgt Ion: 83 Resp: 2313

Ion	Ratio	Lower	Upper
83	100		
85	48.9	35.1	95.1
127	9.8	0.0	39.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166751.d
Acq On : 14 Jul 2021 11:30 pm
Operator : BridgetK
Sample : jd28016-8 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:07 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

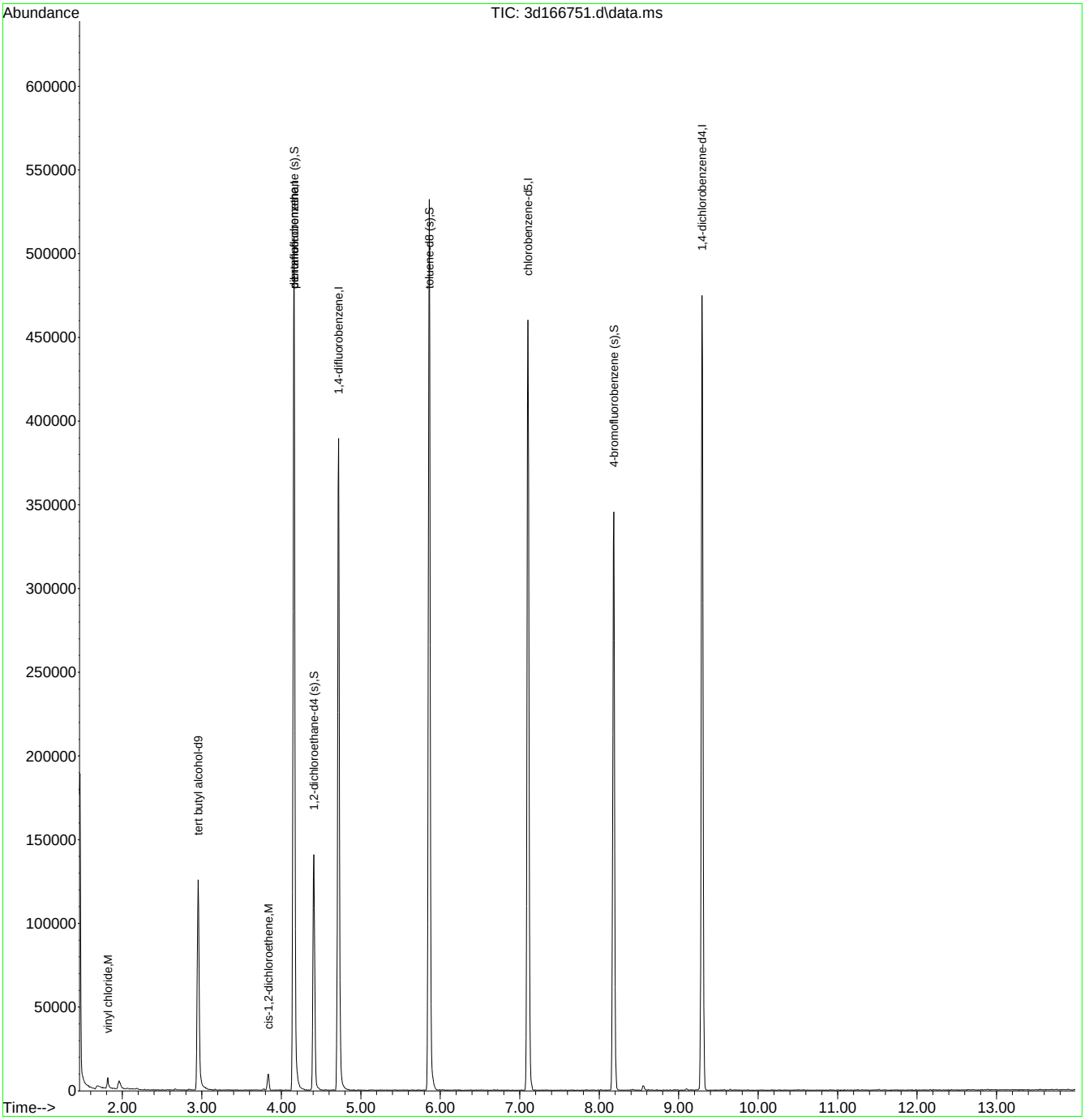
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	115158	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	206838	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	282363	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	258012	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	128165	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	81428	52.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.92%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	81009	48.75	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.50%			
74) toluene-d8 (s)	5.861	98	334288	49.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.30%			
98) 4-bromofluorobenzene (s)	8.184	95	114823	48.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.70%			
Target Compounds						Qvalue
9) vinyl chloride	1.819	62	4408	1.80	ug/L	98
36) cis-1,2-dichloroethene	3.837	96	4050	2.56	ug/L	81

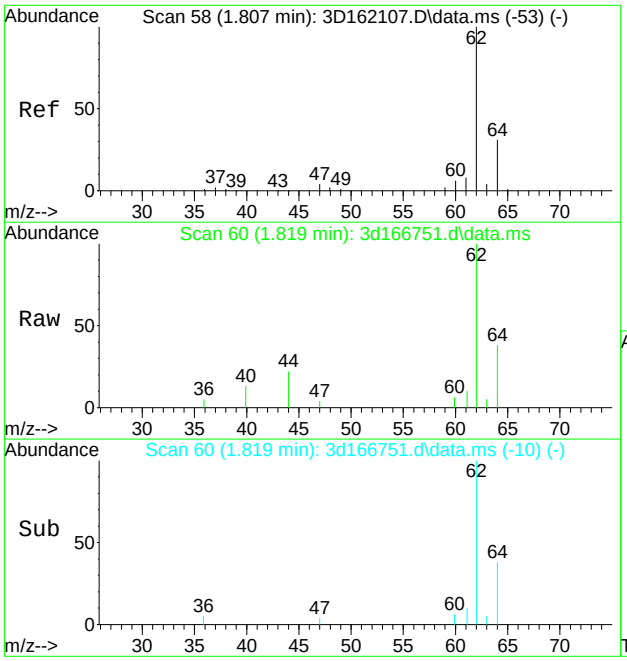
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166751.d
Acq On : 14 Jul 2021 11:30 pm
Operator : BridgetK
Sample : jd28016-8 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:07 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

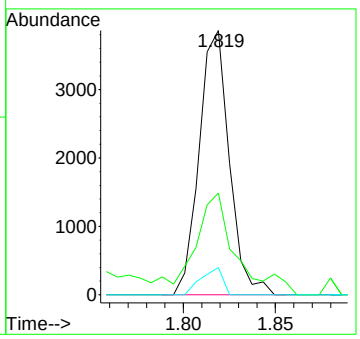


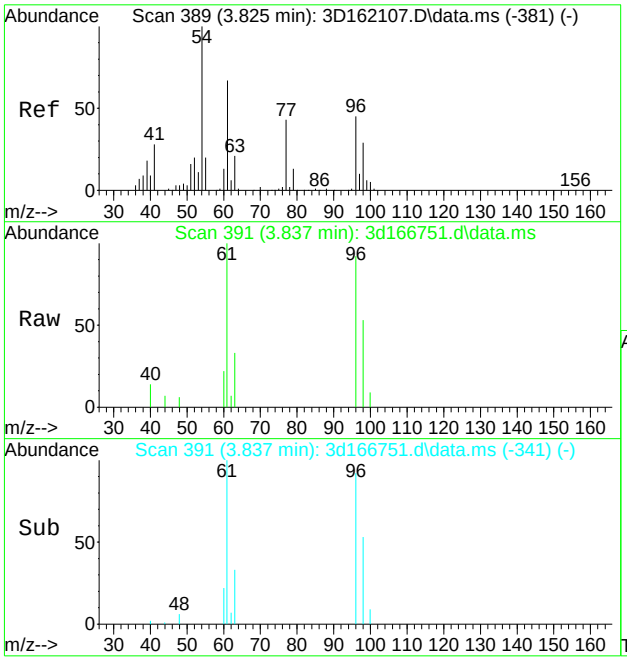


#9
vinyl chloride
Concen: 1.80 ug/L
RT: 1.819 min Scan# 60
Delta R.T. 0.006 min
Lab File: 3d166751.d
Acq: 14 Jul 2021 11:30 pm

Tgt Ion: 62 Resp: 4408

Ion	Ratio	Lower	Upper
62	100		
64	33.6	2.7	62.7
61	10.3	0.0	38.2

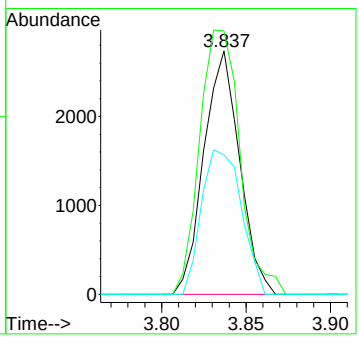




#36
cis-1,2-dichloroethene
Concen: 2.56 ug/L
RT: 3.837 min Scan# 391
Delta R.T. 0.006 min
Lab File: 3d166751.d
Acq: 14 Jul 2021 11:30 pm

Tgt Ion: 96 Resp: 4050

Ion	Ratio	Lower	Upper
96	100		
61	108.3	105.3	165.3
98	57.3	35.5	95.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166755.d
Acq On : 15 Jul 2021 1:10 am
Operator : BridgetK
Sample : jd28016-9 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:24:37 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	119249	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	217230	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	296186	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	269095	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	134517	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	84904	52.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.18%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	85640	49.13	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.26%			
74) toluene-d8 (s)	5.861	98	344743	49.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.18%			
98) 4-bromofluorobenzene (s)	8.184	95	121375	49.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.40%			
Target Compounds						Qvalue

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

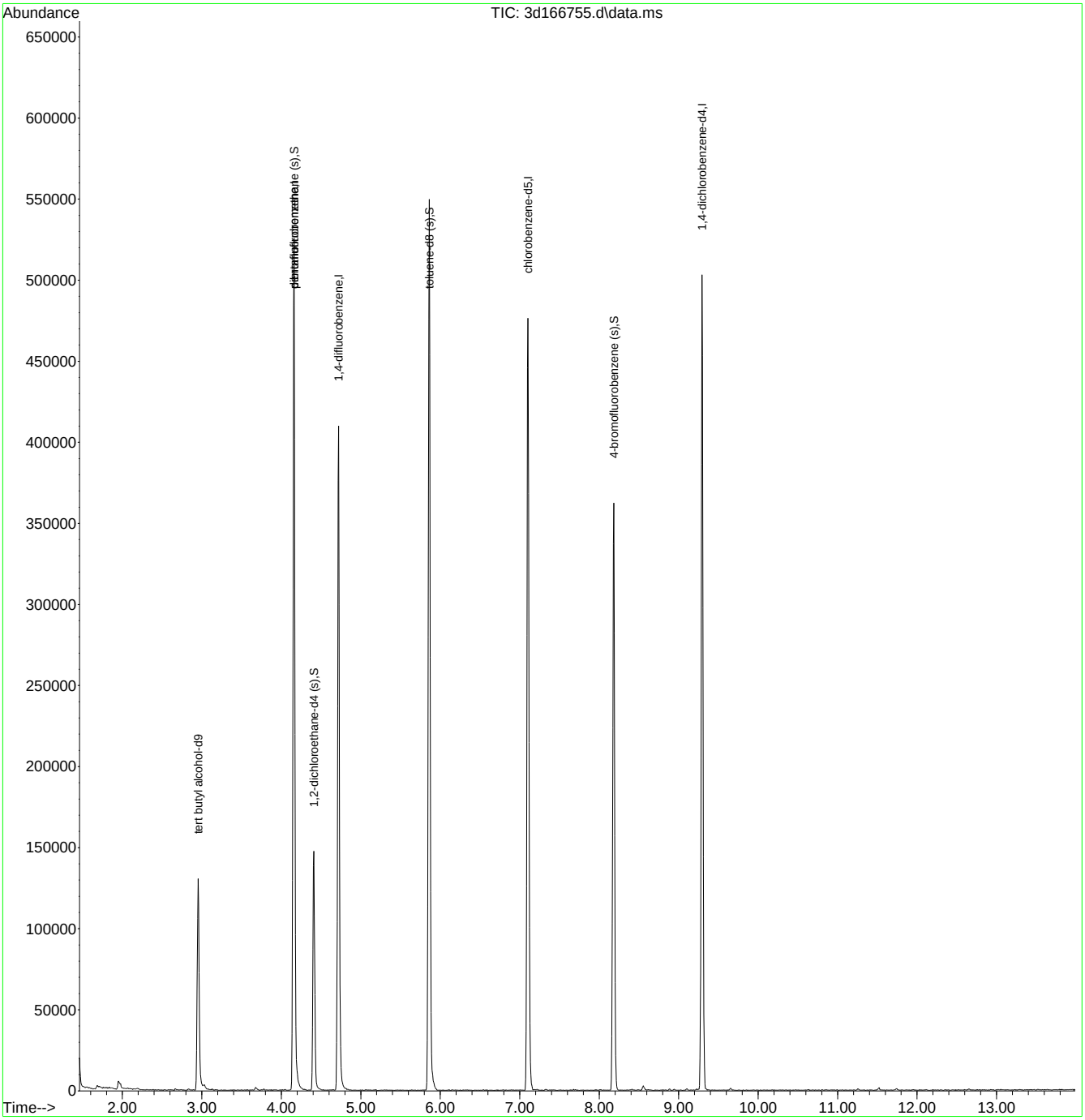
7.1.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166755.d
Acq On : 15 Jul 2021 1:10 am
Operator : BridgetK
Sample : jd28016-9 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:24:37 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166756.d
Acq On : 15 Jul 2021 1:35 am
Operator : BridgetK
Sample : jd28016-10 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:25:17 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

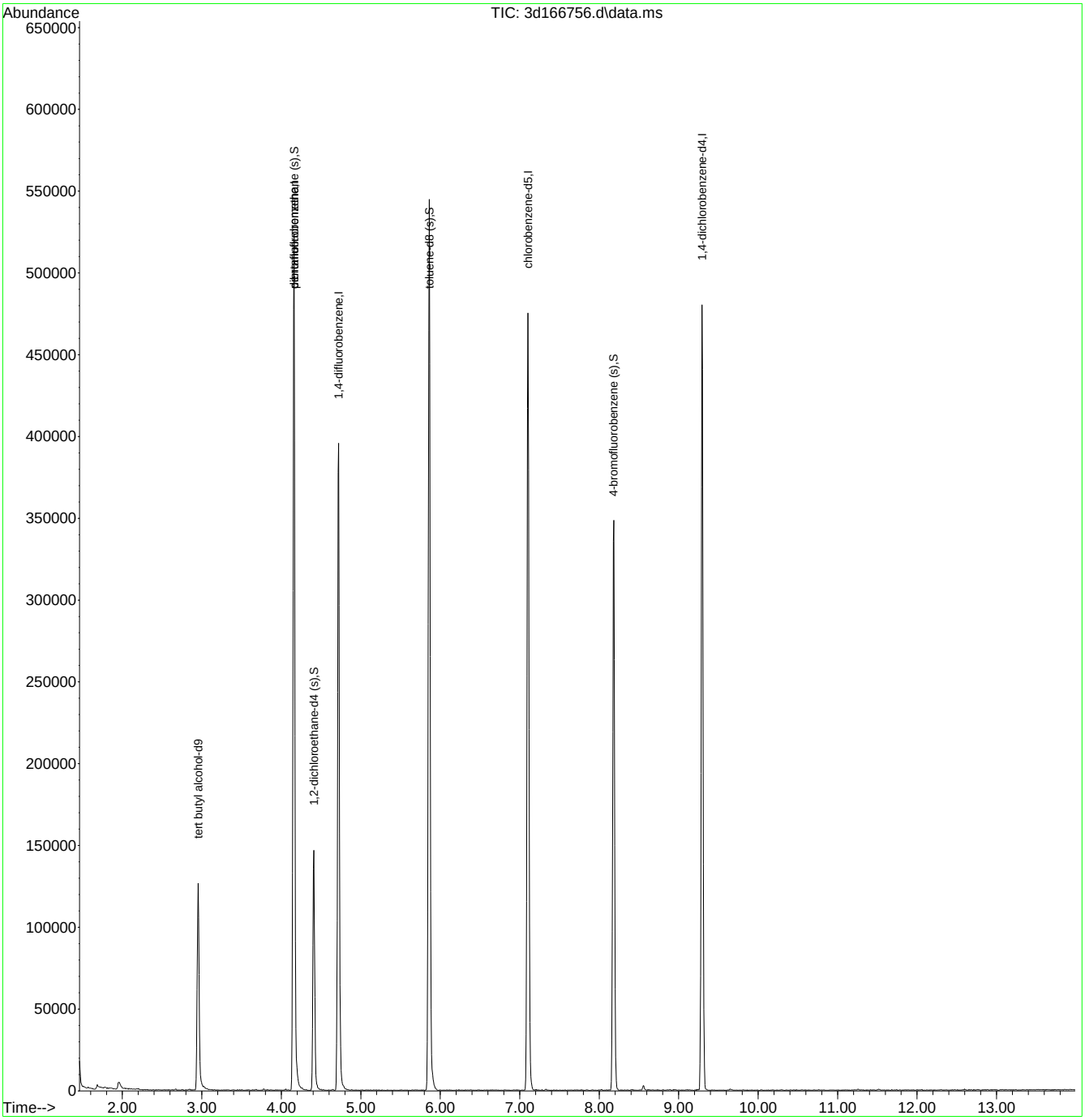
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	115719	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	216345	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	293830	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	260038	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	130455	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	82130	50.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.18%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	83984	48.57	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.14%			
74) toluene-d8 (s)	5.861	98	341870	50.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%			
98) 4-bromofluorobenzene (s)	8.178	95	115995	48.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.96%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166756.d
Acq On : 15 Jul 2021 1:35 am
Operator : BridgetK
Sample : jd28016-10 Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:25:17 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166750.d
Acq On : 14 Jul 2021 11:05 pm
Operator : BridgetK
Sample : mb Inst : MS3D
Misc : MS52240,V3D7090,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:21:25 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

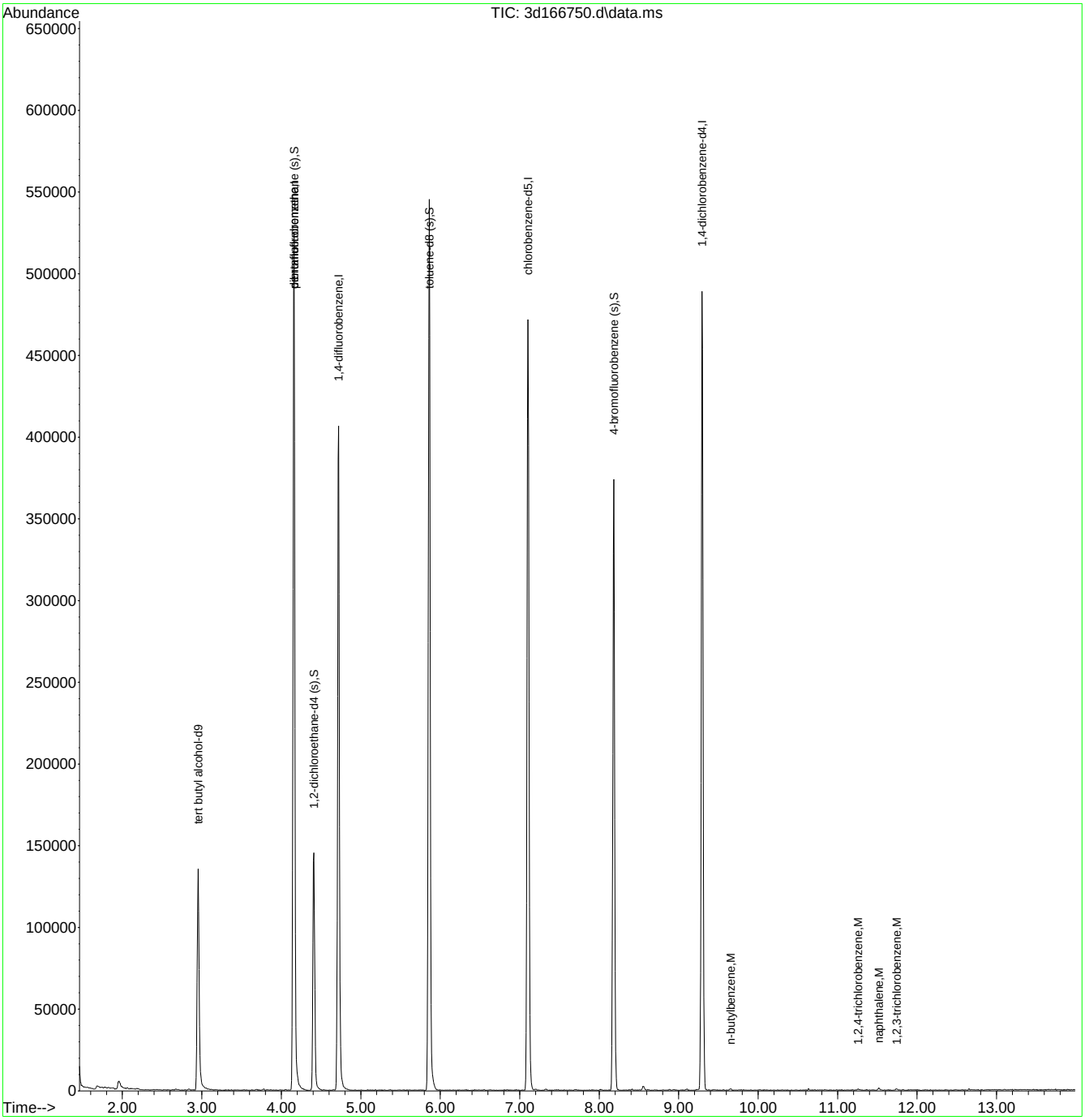
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	123047	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	219715	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	297910	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	266415	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	135556	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	84313	51.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.28%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	87406	49.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.70%			
74) toluene-d8 (s)	5.861	98	346274	49.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.60%			
98) 4-bromofluorobenzene (s)	8.184	95	121173	48.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.48%			
Target Compounds						Qvalue
116) n-butylbenzene	9.653	92	341	0.13	ug/L	99
120) 1,2,4-trichlorobenzene	11.256	180	485	0.22	ug/L	81
122) naphthalene	11.519	128	1291	0.23	ug/L	70
123) 1,2,3-trichlorobenzene	11.744	180	533	0.30	ug/L	71

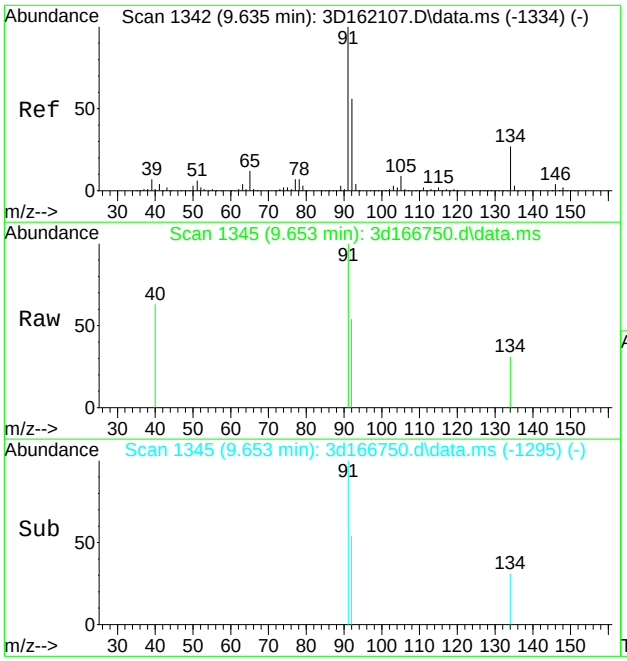
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166750.d
Acq On : 14 Jul 2021 11:05 pm
Operator : BridgetK
Sample : mb Inst : MS3D
Misc : MS52240,V3D7090,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:21:25 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

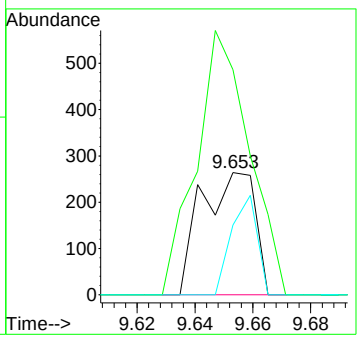


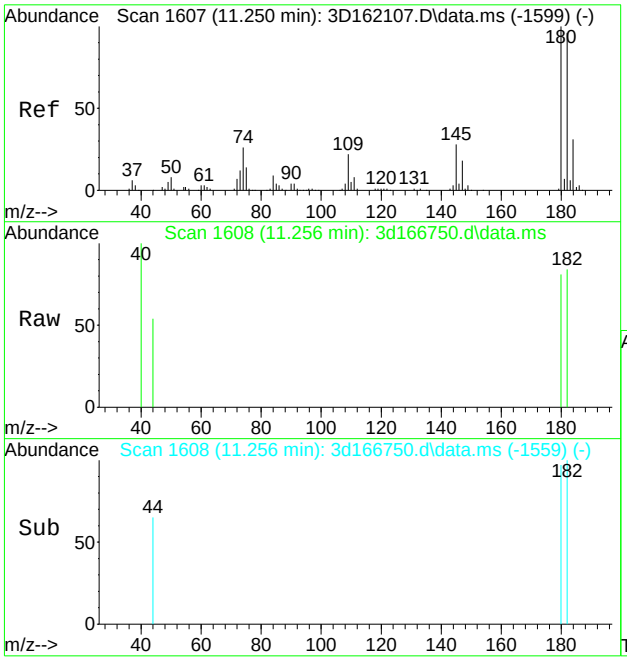


#116
n-butylbenzene
Concen: 0.13 ug/L
RT: 9.653 min Scan# 1345
Delta R.T. 0.006 min
Lab File: 3d166750.d
Acq: 14 Jul 2021 11:05 pm

Tgt Ion: 92 Resp: 341

Ion	Ratio	Lower	Upper
92	100		
91	184.1	152.4	212.4
134	57.2	26.8	86.8

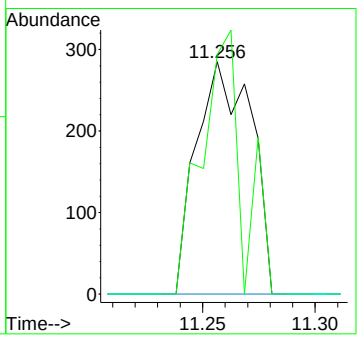


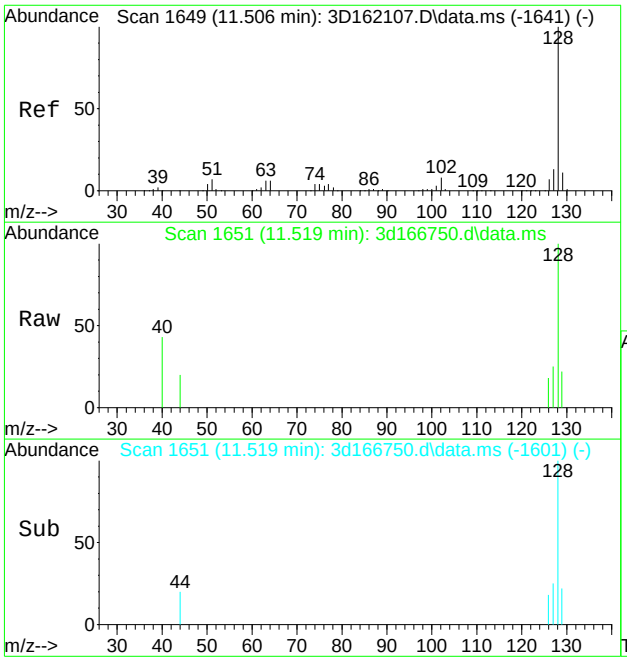


#120
1,2,4-trichlorobenzene
Concen: 0.22 ug/L
RT: 11.256 min Scan# 1608
Delta R.T. 0.000 min
Lab File: 3d166750.d
Acq: 14 Jul 2021 11:05 pm

Tgt Ion:180 Resp: 485

Ion	Ratio	Lower	Upper
180	100		
182	103.2	64.2	124.2
145	0.0	0.0	57.8

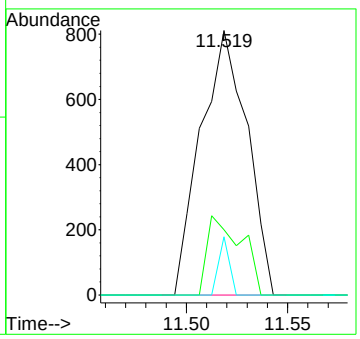


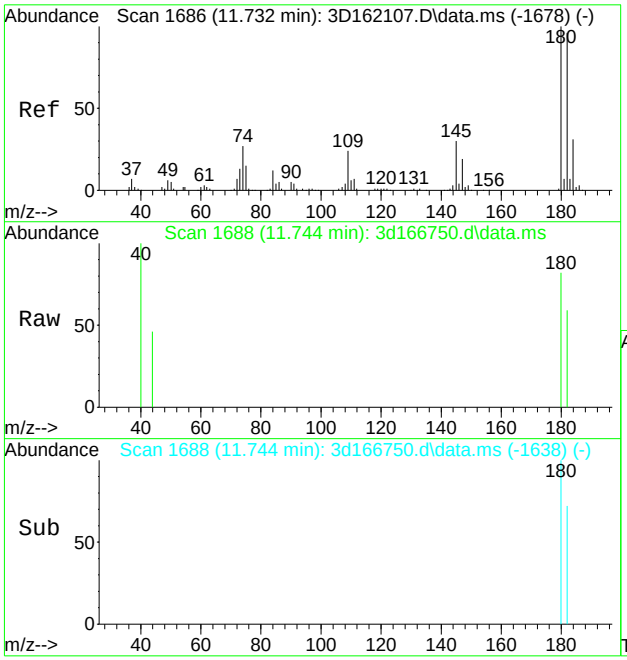


#122
naphthalene
Concen: 0.23 ug/L
RT: 11.519 min Scan# 1651
Delta R.T. 0.007 min
Lab File: 3d166750.d
Acq: 14 Jul 2021 11:05 pm

Tgt Ion:128 Resp: 1291

Ion	Ratio	Lower	Upper
128	100		
127	24.6	0.0	42.5
129	22.0	0.0	41.0

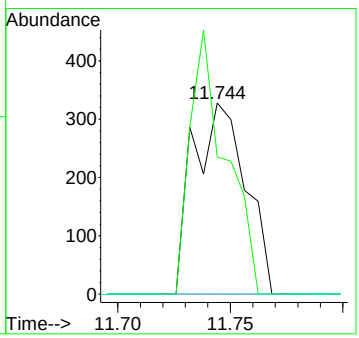




#123
1,2,3-trichlorobenzene
Concen: 0.30 ug/L
RT: 11.744 min Scan# 1688
Delta R.T. 0.006 min
Lab File: 3d166750.d
Acq: 14 Jul 2021 11:05 pm

Tgt Ion:180 Resp: 533

Ion	Ratio	Lower	Upper
180	100		
182	71.6	61.3	121.3
145	0.0	0.0	59.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166748.d
Acq On : 14 Jul 2021 10:16 pm
Operator : BridgetK
Sample : bs Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:20:33 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	125681	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	207991	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	296303	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	278108	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	135906	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	82399	52.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.60%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	83785	48.05	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.10%			
74) toluene-d8 (s)	5.861	98	338980	46.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.40%			
98) 4-bromofluorobenzene (s)	8.184	95	126037	50.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.14%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.008	59	71019	234.84	ug/L	89
3) ethanol	2.392	45	149188	5047.00	ug/L	98
4) 1,4-dioxane	5.148	88	40793	1368.59	ug/L	93
6) chlorodifluoromethane	1.594	51	78218	52.52	ug/L	98
7) dichlorodifluoromethane	1.581	85	111693	55.72	ug/L	98
8) chloromethane	1.728	50	111594	47.81	ug/L	99
9) vinyl chloride	1.813	62	122787	49.90	ug/L	97
10) 1,3-butadiene	1.844	54	87226	55.70	ug/L	97
11) bromomethane	2.051	94	67467	52.44	ug/L	97
12) chloroethane	2.130	64	76011	48.94	ug/L	97
13) trichlorofluoromethane	2.313	101	132442	54.65	ug/L	99
14) ethyl ether	2.490	74	48967	56.03	ug/L	99
15) acrolein	2.581	56	15283	52.48	ug/L	98
16) freon 113	2.661	151	63946	55.91	ug/L	99
17) 1,1-dichloroethene	2.667	96	64225	51.93	ug/L	98
18) acetone	2.667	58	52376	233.15	ug/L	96
19) acetonitrile	2.843	41	127619	518.92	ug/L	97
20) iodomethane	2.776	142	72198	41.12	ug/L	98
21) carbon disulfide	2.837	76	172717	48.09	ug/L	99
22) methylene chloride	2.978	84	81340	50.63	ug/L	95
23) methyl acetate	2.868	43	72142	52.49	ug/L	99
24) methyl tert butyl ether	3.148	73	223908	54.30	ug/L	97
25) trans-1,2-dichloroethene	3.167	96	74177	52.37	ug/L	97
26) di-isopropyl ether	3.453	45	228159	53.92	ug/L	99
27) 2-butanone	3.801	72	61692	241.97	ug/L	90
28) 1,1-dichloroethane	3.453	63	127439	50.16	ug/L	98
29) chloroprene	3.508	53	105866	54.42	ug/L	99
30) acrylonitrile	3.112	53	34678	55.84	ug/L	96
31) hexane	3.349	56	49186	58.63	ug/L	96
32) vinyl acetate	3.429	86	18518	55.38	ug/L #	91
33) ethyl tert-butyl ether	3.697	59	236411	52.81	ug/L	99
34) ethyl acetate	3.813	45	15726	55.98	ug/L #	21
35) 2,2-dichloropropane	3.843	77	103744	46.26	ug/L	99
36) cis-1,2-dichloroethene	3.831	96	82419	51.78	ug/L	98
37) methyl acrylate	3.862	85	16248	58.31	ug/L	93
38) propionitrile	3.837	54	153566	572.47	ug/L	99
39) bromochloromethane	3.996	128	43915	53.19	ug/L	98
40) tetrahydrofuran	4.014	42	28087	50.01	ug/L	94
41) chloroform	4.051	85	88314	50.38	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166748.d
Acq On : 14 Jul 2021 10:16 pm
Operator : BridgetK
Sample : bs Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:20:33 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	4.069	59	43342	41.09	ug/L	#	80
44) methacrylonitrile	3.953	67	39923	57.41	ug/L		93
45) 1,1,1-trichloroethane	4.197	97	120463	53.22	ug/L		99
46) cyclohexane	4.264	84	111679	51.85	ug/L		95
47) 1,1-dichloropropene	4.300	75	104020	53.75	ug/L		99
48) iso-butyl alcohol	4.300	43	46309	477.02	ug/L		97
49) carbon tetrachloride	4.313	117	105865	53.98	ug/L		98
50) tert amyl alcohol	4.392	55	29644	310.29	ug/L		87
53) n-butyl alcohol	4.770	56	200487	2720.02	ug/L		99
54) 2,2,4-trimethylpentane	4.520	57	168243	53.70	ug/L		96
55) benzene	4.447	78	298501	49.60	ug/L		99
56) tert-amyl methyl ether	4.514	87	60386	51.00	ug/L		96
57) heptane	4.630	71	43434	53.92	ug/L		96
58) isopropyl acetate	4.416	87	24806	54.29	ug/L	#	92
59) 1,2-dichloroethane	4.465	62	100912	46.55	ug/L		95
60) trichloroethene	4.916	130	91738	51.83	ug/L		96
61) ethyl acrylate	4.928	55	116156	53.00	ug/L		99
62) 2-nitropropane	5.441	41	22892	41.96	ug/L		95
63) 2-chloroethyl vinyl ether	5.483	63	291464	272.23	ug/L		98
64) methyl methacrylate	5.111	100	28216	53.11	ug/L	#	71
65) 1,2-dichloropropane	5.105	63	78808	53.69	ug/L		97
66) dibromomethane	5.172	93	50323	51.12	ug/L		97
67) methylcyclohexane	5.111	83	124686	56.27	ug/L		98
68) bromodichloromethane	5.294	83	100439	49.50	ug/L		98
69) epichlorohydrin	5.532	57	57878	270.75	ug/L		99
70) cis-1,3-dichloropropene	5.629	75	127842	51.03	ug/L		96
71) 4-methyl-2-pentanone	5.727	58	165668	209.43	ug/L		96
72) 3-methyl-1-butanol	5.751	55	116611	1049.46	ug/L		96
75) toluene	5.916	92	194716	43.38	ug/L		98
76) trans-1,3-dichloropropene	6.081	75	116831	46.96	ug/L		99
77) ethyl methacrylate	6.105	69	119458	48.55	ug/L		99
78) 1,1,2-trichloroethane	6.251	83	63703	49.19	ug/L		96
79) tetrachloroethene	6.361	164	75138	45.66	ug/L		94
80) 1,3-dichloropropane	6.392	76	132050	50.03	ug/L		96
81) 2-hexanone	6.410	58	170893	201.06	ug/L		94
82) butyl acetate	6.507	56	65911	47.66	ug/L		91
83) dibromochloromethane	6.587	129	86925	47.14	ug/L		98
84) 1,2-dibromoethane	6.696	107	83133	48.69	ug/L		98
85) n-butyl ether	7.190	57	308663	44.73	ug/L		98
86) chlorobenzene	7.129	112	229483	45.58	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.202	131	81786	47.12	ug/L		98
88) ethylbenzene	7.208	91	365979	44.62	ug/L		100
89) m,p-xylene	7.324	106	298229	90.09	ug/L		99
90) o-xylene	7.678	106	149416	45.85	ug/L		100
91) styrene	7.690	104	251460	46.86	ug/L		98
92) bromoform	7.867	173	68960	47.57	ug/L		96
93) butyl acrylate	7.599	55	167675	48.32	ug/L		99
94) n-amyl acetate	7.806	70	72889	50.24	ug/L		91
95) isopropylbenzene	8.013	105	374238	45.48	ug/L		99
96) cis-1,4-dichloro-2-butene	8.056	88	36002	31.52	ug/L		95
99) bromobenzene	8.324	156	104814	46.51	ug/L		96
100) 1,1,2,2-tetrachloroethane	8.287	83	103341	48.10	ug/L		98
101) trans-1,4-dichloro-2-b...	8.324	53	27947	41.70	ug/L		99
102) 1,2,3-trichloropropane	8.348	110	35938	49.09	ug/L		98
103) n-propylbenzene	8.409	91	397435	44.69	ug/L		98
104) 2-chlorotoluene	8.501	126	91809	47.03	ug/L		96
105) 4-chlorotoluene	8.617	126	92630	46.79	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166748.d
Acq On : 14 Jul 2021 10:16 pm
Operator : BridgetK
Sample : bs Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:20:33 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

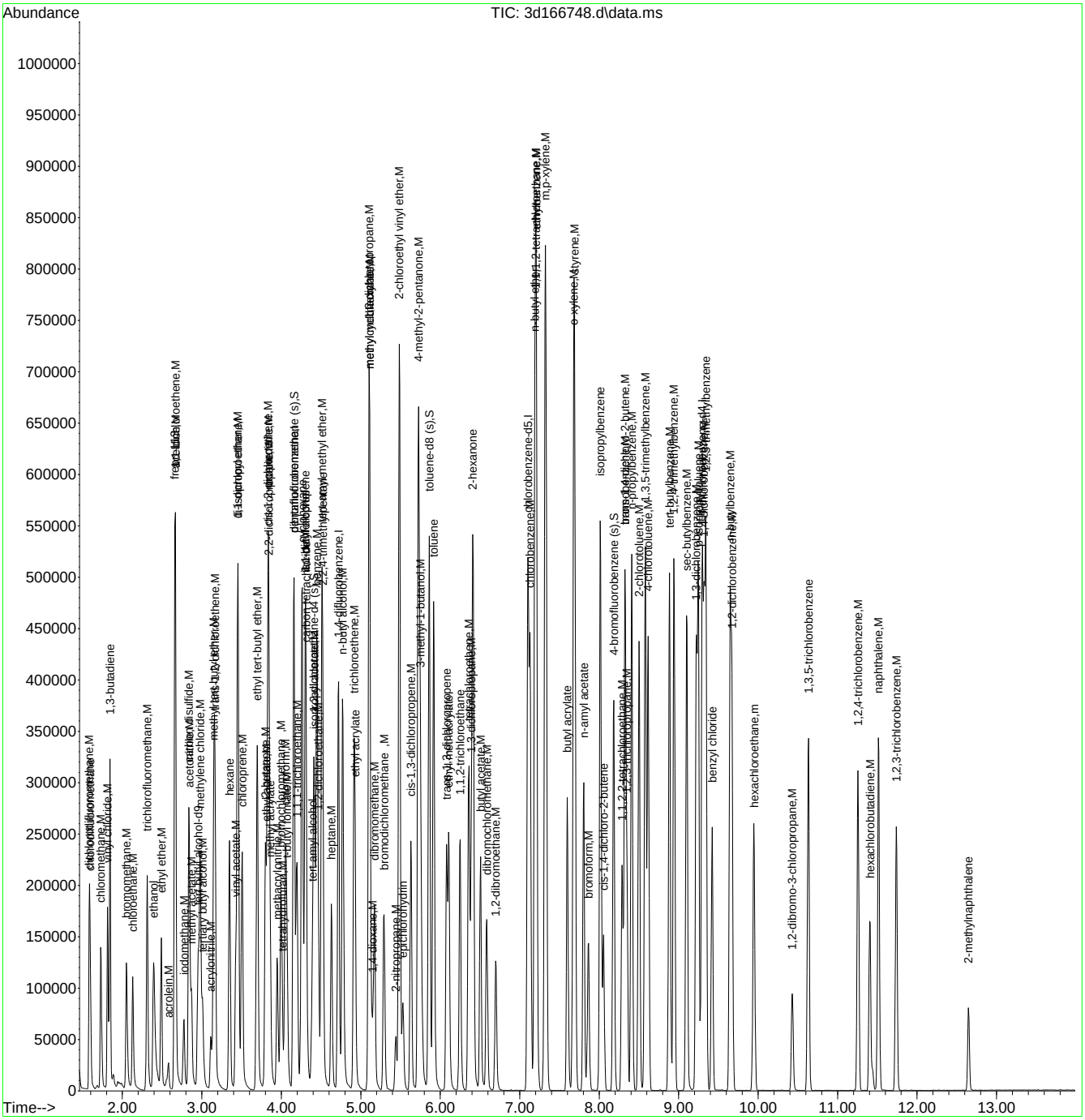
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 1,3,5-trimethylbenzene	8.580	105	283495	45.17	ug/L	99
107) tert-butylbenzene	8.885	134	69093	47.94	ug/L	95
108) 1,2,4-trimethylbenzene	8.940	105	292865	44.87	ug/L	99
109) sec-butylbenzene	9.098	105	333871	46.22	ug/L	99
110) 1,3-dichlorobenzene	9.220	146	183503	47.66	ug/L	99
111) p-isopropyltoluene	9.251	119	290547	45.14	ug/L	97
112) 1,4-dichlorobenzene	9.318	146	179380	45.56	ug/L	99
113) 1,2,3-trimethylbenzene	9.342	105	301490	45.20	ug/L	98
114) benzyl chloride	9.421	91	177227	41.70	ug/L	99
115) 1,2-dichlorobenzene	9.671	146	173624	48.01	ug/L	98
116) n-butylbenzene	9.647	92	129050	48.10	ug/L	97
117) 1,2-dibromo-3-chloropr...	10.427	157	29802	47.23	ug/L	95
118) 1,3,5-trichlorobenzene	10.635	180	121698	47.93	ug/L	97
120) 1,2,4-trichlorobenzene	11.256	180	106322	48.85	ug/L	98
121) hexachlorobutadiene	11.409	225	35607	46.74	ug/L	96
122) naphthalene	11.512	128	284149	50.75	ug/L	99
123) 1,2,3-trichlorobenzene	11.738	180	90405	50.50	ug/L	97
124) hexachloroethane	9.952	201	49189	44.61	ug/L	96
125) 2-methylnaphthalene	12.646	142	40114	19.55	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166748.d
Acq On : 14 Jul 2021 10:16 pm
Operator : BridgetK
Sample : bs Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:20:33 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166752.d
Acq On : 14 Jul 2021 11:55 pm
Operator : BridgetK
Sample : jd28016-8ms Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:29 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	117040	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	203824	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	291731	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	268698	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	132444	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	80436	52.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.18%			
52) 1,2-dichloroethane-d4 (s)	4.404	65	79424	46.26	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.52%			
74) toluene-d8 (s)	5.861	98	339126	48.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.72%			
98) 4-bromofluorobenzene (s)	8.184	95	123528	50.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.70%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.008	59	65163	231.38	ug/L	94
3) ethanol	2.398	45	128455	4666.44	ug/L	100
4) 1,4-dioxane	5.142	88	34294	1235.50	ug/L	100
6) chlorodifluoromethane	1.594	51	62528	42.84	ug/L	96
7) dichlorodifluoromethane	1.581	85	123922	63.09	ug/L	99
8) chloromethane	1.728	50	119228	52.13	ug/L	97
9) vinyl chloride	1.813	62	143271	59.41	ug/L	99
10) 1,3-butadiene	1.843	54	71396	46.53	ug/L	97
11) bromomethane	2.051	94	70386	55.83	ug/L	96
12) chloroethane	2.130	64	81018	53.23	ug/L	97
13) trichlorofluoromethane	2.313	101	151191	63.66	ug/L	98
14) ethyl ether	2.490	74	42392	49.50	ug/L	94
15) acrolein	2.581	56	15023	52.64	ug/L	91
16) freon 113	2.660	151	61332	54.72	ug/L	95
17) 1,1-dichloroethene	2.666	96	62288	51.39	ug/L	94
18) acetone	2.666	58	34600	157.17	ug/L	95
19) acetonitrile	2.843	41	110662	459.17	ug/L	99
20) iodomethane	2.776	142	65766	38.33	ug/L	95
21) carbon disulfide	2.837	76	157076	44.63	ug/L	99
22) methylene chloride	2.977	84	73031	46.39	ug/L	97
23) methyl acetate	2.874	43	58276	43.27	ug/L	100
24) methyl tert butyl ether	3.154	73	199146	49.29	ug/L	99
25) trans-1,2-dichloroethene	3.166	96	71059	51.20	ug/L	98
26) di-isopropyl ether	3.453	45	206832	49.88	ug/L	98
27) 2-butanone	3.800	72	48038	192.27	ug/L	96
28) 1,1-dichloroethane	3.453	63	120939	48.57	ug/L	99
29) chloroprene	3.508	53	103725	54.41	ug/L	99
30) acrylonitrile	3.112	53	32549	53.48	ug/L	95
31) hexane	3.349	56	45046	54.79	ug/L	95
32) vinyl acetate	3.429	86	18484	56.41	ug/L #	80
33) ethyl tert-butyl ether	3.697	59	211765	48.27	ug/L	98
34) ethyl acetate	3.819	45	13144	47.75	ug/L	95
35) 2,2-dichloropropane	3.843	77	98840	44.98	ug/L	99
36) cis-1,2-dichloroethene	3.831	96	81172	52.04	ug/L	99
37) methyl acrylate	3.861	85	14338	52.51	ug/L	92
38) propionitrile	3.837	54	131480	500.16	ug/L	100
39) bromochloromethane	3.995	128	39882	49.29	ug/L	98
40) tetrahydrofuran	4.014	42	24460	44.45	ug/L	97
41) chloroform	4.050	85	80656	46.95	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166752.d
Acq On : 14 Jul 2021 11:55 pm
Operator : BridgetK
Sample : jd28016-8ms Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:29 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	4.069	59	2185	2.11	ug/L	#	53
44) methacrylonitrile	3.953	67	34051	49.97	ug/L		95
45) 1,1,1-trichloroethane	4.197	97	116556	52.54	ug/L		97
46) cyclohexane	4.258	84	126154	59.76	ug/L		89
47) 1,1-dichloropropene	4.300	75	103983	54.83	ug/L		98
48) iso-butyl alcohol	4.300	43	40222	422.79	ug/L		98
49) carbon tetrachloride	4.313	117	104136	54.18	ug/L		99
50) tert amyl alcohol	4.392	55	24700	263.83	ug/L	#	75
53) n-butyl alcohol	4.770	56	169226	2331.88	ug/L		99
54) 2,2,4-trimethylpentane	4.520	57	153342	49.71	ug/L		96
55) benzene	4.447	78	280043	47.26	ug/L		99
56) tert-amyl methyl ether	4.514	87	53951	46.27	ug/L		95
57) heptane	4.630	71	40624	51.22	ug/L		95
58) isopropyl acetate	4.416	87	20184	44.87	ug/L		97
59) 1,2-dichloroethane	4.465	62	91639	42.94	ug/L		98
60) trichloroethene	4.916	130	85261	48.93	ug/L		97
61) ethyl acrylate	4.928	55	101082	46.84	ug/L		99
62) 2-nitropropane	5.440	41	20004	37.24	ug/L		95
64) methyl methacrylate	5.111	100	24371	46.59	ug/L	#	82
65) 1,2-dichloropropane	5.105	63	71836	49.71	ug/L		98
66) dibromomethane	5.172	93	45270	46.71	ug/L		97
67) methylcyclohexane	5.111	83	121801	55.83	ug/L		99
68) bromodichloromethane	5.294	83	93167	46.63	ug/L		99
69) epichlorohydrin	5.532	57	32279	153.36	ug/L		91
70) cis-1,3-dichloropropene	5.629	75	118695	48.13	ug/L		98
71) 4-methyl-2-pentanone	5.727	58	145557	186.89	ug/L		95
72) 3-methyl-1-butanol	5.751	55	103910	949.81	ug/L		95
75) toluene	5.916	92	189588	43.71	ug/L		98
76) trans-1,3-dichloropropene	6.080	75	104062	43.29	ug/L		99
77) ethyl methacrylate	6.105	69	105986	44.58	ug/L		97
78) 1,1,2-trichloroethane	6.251	83	55796	44.59	ug/L		98
79) tetrachloroethene	6.361	164	71951	45.25	ug/L		98
80) 1,3-dichloropropane	6.391	76	119342	46.79	ug/L		94
81) 2-hexanone	6.416	58	143984	175.33	ug/L		96
82) butyl acetate	6.507	56	55534	41.56	ug/L		94
83) dibromochloromethane	6.586	129	77049	43.25	ug/L		98
84) 1,2-dibromoethane	6.696	107	72210	43.77	ug/L		97
85) n-butyl ether	7.190	57	293321	43.99	ug/L		99
86) chlorobenzene	7.129	112	213866	43.96	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.202	131	75136	44.81	ug/L		98
88) ethylbenzene	7.208	91	351550	44.36	ug/L		100
89) m,p-xylene	7.324	106	287106	89.77	ug/L		99
90) o-xylene	7.678	106	142764	45.34	ug/L		99
91) styrene	7.690	104	234972	45.32	ug/L		99
92) bromoform	7.867	173	59054	42.16	ug/L		95
93) butyl acrylate	7.598	55	150246	44.82	ug/L		99
94) n-amyl acetate	7.806	70	62681	44.72	ug/L		98
95) isopropylbenzene	8.013	105	365550	45.98	ug/L		98
96) cis-1,4-dichloro-2-butene	8.056	88	29931	27.29	ug/L		94
99) bromobenzene	8.324	156	96451	43.92	ug/L		98
100) 1,1,2,2-tetrachloroethane	8.287	83	93625	44.72	ug/L		93
101) trans-1,4-dichloro-2-b...	8.324	53	24424	37.39	ug/L		98
102) 1,2,3-trichloropropane	8.348	110	32214	45.16	ug/L		99
103) n-propylbenzene	8.409	91	386408	44.59	ug/L		99
104) 2-chlorotoluene	8.501	126	85983	45.19	ug/L		97
105) 4-chlorotoluene	8.617	126	88994	46.13	ug/L		98
106) 1,3,5-trimethylbenzene	8.580	105	270867	44.28	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166752.d
Acq On : 14 Jul 2021 11:55 pm
Operator : BridgetK
Sample : jd28016-8ms Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:29 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) tert-butylbenzene	8.885	134	65964	46.96	ug/L	99
108) 1,2,4-trimethylbenzene	8.940	105	281311	44.23	ug/L	100
109) sec-butylbenzene	9.098	105	329490	46.81	ug/L	99
110) 1,3-dichlorobenzene	9.220	146	169120	45.07	ug/L	98
111) p-isopropyltoluene	9.244	119	280709	44.75	ug/L	100
112) 1,4-dichlorobenzene	9.318	146	167187	43.57	ug/L	99
113) 1,2,3-trimethylbenzene	9.342	105	283053	43.55	ug/L	99
114) benzyl chloride	9.421	91	148899	35.95	ug/L	97
115) 1,2-dichlorobenzene	9.671	146	159979	45.39	ug/L	98
116) n-butylbenzene	9.647	92	126071	48.22	ug/L	99
117) 1,2-dibromo-3-chloropr...	10.433	157	25446	41.38	ug/L	90
118) 1,3,5-trichlorobenzene	10.634	180	113456	45.85	ug/L	98
120) 1,2,4-trichlorobenzene	11.256	180	96662	45.57	ug/L	98
121) hexachlorobutadiene	11.409	225	34151	46.00	ug/L	94
122) naphthalene	11.518	128	248067	45.47	ug/L	100
123) 1,2,3-trichlorobenzene	11.738	180	81745	46.86	ug/L	97
124) hexachloroethane	9.946	201	47377	44.09	ug/L	96
125) 2-methylnaphthalene	12.646	142	33766	17.17	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166752.d
Acq On : 14 Jul 2021 11:55 pm
Operator : BridgetK
Sample : jd28016-8ms Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:29 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
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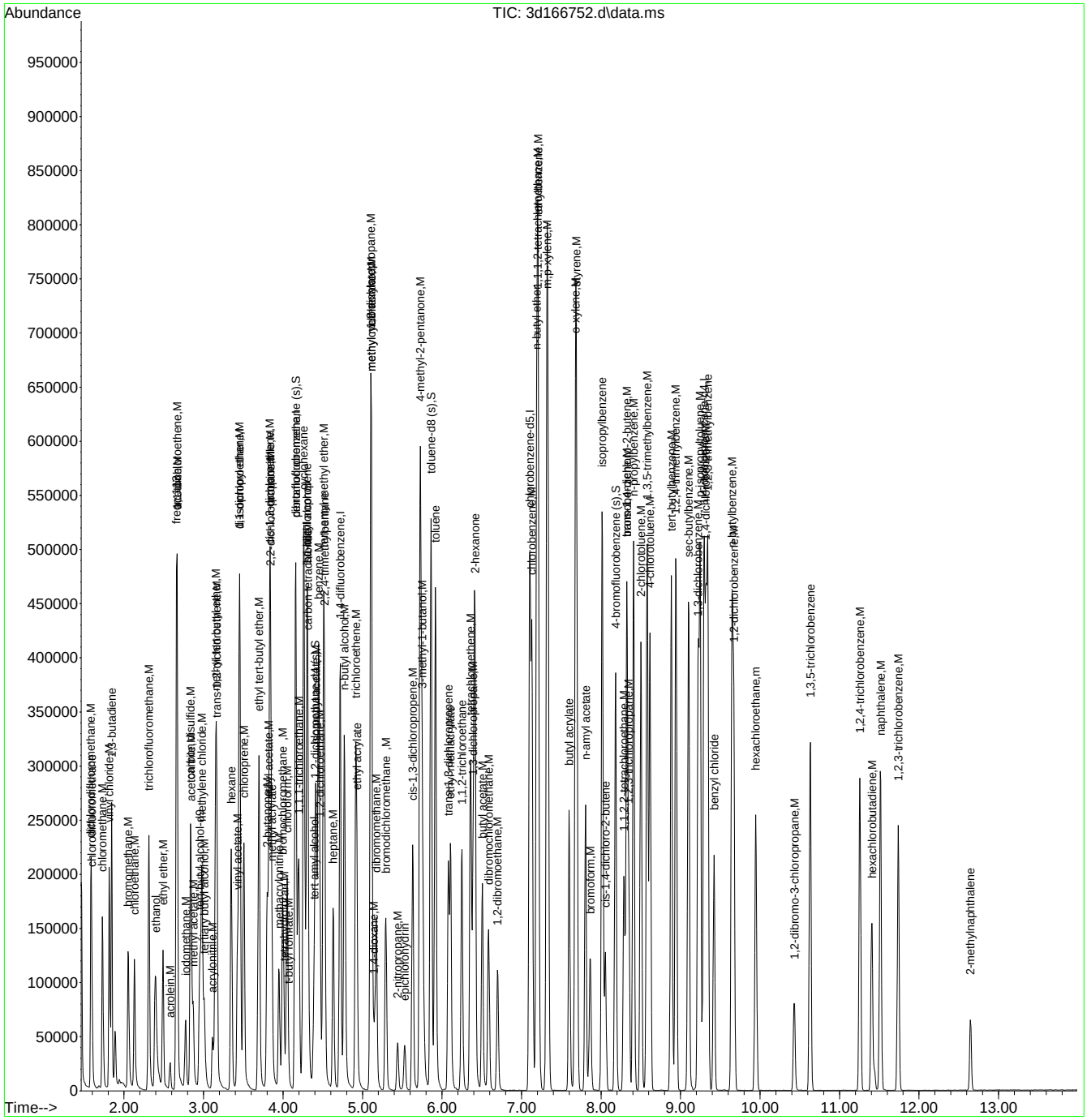


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166753.d
Acq On : 15 Jul 2021 12:20 am
Operator : BridgetK
Sample : jd28016-8msd Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:43 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	124849	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	205932	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	287309	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	263089	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	130784	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	78999	51.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.24%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	79616	47.08	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.16%			
74) toluene-d8 (s)	5.861	98	330537	48.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.28%			
98) 4-bromofluorobenzene (s)	8.178	95	120170	50.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.20%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.008	59	71545	238.15	ug/L	89
3) ethanol	2.392	45	141210	4808.94	ug/L	99
4) 1,4-dioxane	5.142	88	37319	1260.38	ug/L	99
6) chlorodifluoromethane	1.594	51	65397	44.35	ug/L	93
7) dichlorodifluoromethane	1.587	85	125511	63.24	ug/L	99
8) chloromethane	1.728	50	117626	50.90	ug/L	99
9) vinyl chloride	1.813	62	137461	56.42	ug/L	99
10) 1,3-butadiene	1.844	54	70743	45.63	ug/L	98
11) bromomethane	2.051	94	72445	56.87	ug/L	100
12) chloroethane	2.130	64	78772	51.22	ug/L	96
13) trichlorofluoromethane	2.313	101	149081	62.13	ug/L	98
14) ethyl ether	2.490	74	43880	50.71	ug/L	99
15) acrolein	2.581	56	15550	53.93	ug/L	98
16) freon 113	2.660	151	63599	56.16	ug/L	99
17) 1,1-dichloroethene	2.667	96	62795	51.28	ug/L	98
18) acetone	2.667	58	36474	163.98	ug/L	97
19) acetonitrile	2.843	41	117214	481.38	ug/L	99
20) iodomethane	2.776	142	70077	40.34	ug/L	97
21) carbon disulfide	2.837	76	160817	45.22	ug/L	99
22) methylene chloride	2.977	84	75380	47.39	ug/L	94
23) methyl acetate	2.874	43	62476	45.91	ug/L	98
24) methyl tert butyl ether	3.154	73	208546	51.08	ug/L	100
25) trans-1,2-dichloroethene	3.166	96	72611	51.78	ug/L	98
26) di-isopropyl ether	3.453	45	210058	50.14	ug/L	98
27) 2-butanone	3.800	72	52324	207.28	ug/L	93
28) 1,1-dichloroethane	3.453	63	120868	48.05	ug/L	98
29) chloroprene	3.508	53	103795	53.89	ug/L	97
30) acrylonitrile	3.112	53	31637	51.45	ug/L	93
31) hexane	3.349	56	46316	55.76	ug/L	94
32) vinyl acetate	3.429	86	19483	58.85	ug/L	95
33) ethyl tert-butyl ether	3.697	59	221533	49.98	ug/L	99
34) ethyl acetate	3.819	45	14129	50.80	ug/L	95
35) 2,2-dichloropropane	3.843	77	99426	44.78	ug/L	96
36) cis-1,2-dichloroethene	3.831	96	83113	52.73	ug/L	99
37) methyl acrylate	3.861	85	14785	53.59	ug/L	98
38) propionitrile	3.837	54	139205	524.13	ug/L	98
39) bromochloromethane	3.996	128	40848	49.97	ug/L	95
40) tetrahydrofuran	4.008	42	25896	46.57	ug/L	91
41) chloroform	4.050	85	81567	47.00	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166753.d
Acq On : 15 Jul 2021 12:20 am
Operator : BridgetK
Sample : jd28016-8msd Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:43 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	4.075	59	1384	1.33	ug/L		87
44) methacrylonitrile	3.947	67	36308	52.74	ug/L		96
45) 1,1,1-trichloroethane	4.197	97	118586	52.91	ug/L		98
46) cyclohexane	4.264	84	123963	58.12	ug/L		94
47) 1,1-dichloropropene	4.300	75	103959	54.26	ug/L		98
48) iso-butyl alcohol	4.300	43	44524	463.22	ug/L		98
49) carbon tetrachloride	4.313	117	105898	54.54	ug/L		97
50) tert amyl alcohol	4.392	55	26889	284.27	ug/L		83
53) n-butyl alcohol	4.770	56	187348	2621.33	ug/L		98
54) 2,2,4-trimethylpentane	4.520	57	160103	52.70	ug/L		95
55) benzene	4.447	78	285111	48.86	ug/L		99
56) tert-amyl methyl ether	4.514	87	57675	50.23	ug/L		94
57) heptane	4.630	71	42099	53.90	ug/L		97
58) isopropyl acetate	4.416	87	21908	49.45	ug/L		91
59) 1,2-dichloroethane	4.465	62	94819	45.11	ug/L		97
60) trichloroethene	4.916	130	86895	50.64	ug/L		98
61) ethyl acrylate	4.928	55	108320	50.97	ug/L		98
62) 2-nitropropane	5.440	41	21349	40.36	ug/L		94
64) methyl methacrylate	5.111	100	25423	49.35	ug/L	#	80
65) 1,2-dichloropropane	5.105	63	73710	51.79	ug/L		99
66) dibromomethane	5.172	93	46866	49.10	ug/L		97
67) methylcyclohexane	5.111	83	123620	57.54	ug/L		96
68) bromodichloromethane	5.294	83	94751	48.16	ug/L		96
69) epichlorohydrin	5.532	57	33251	160.41	ug/L		90
70) cis-1,3-dichloropropene	5.629	75	119824	49.33	ug/L		98
71) 4-methyl-2-pentanone	5.727	58	154334	201.21	ug/L		95
72) 3-methyl-1-butanol	5.751	55	110907	1029.37	ug/L		95
75) toluene	5.916	92	193176	45.49	ug/L		99
76) trans-1,3-dichloropropene	6.080	75	108066	45.91	ug/L		99
77) ethyl methacrylate	6.105	69	111011	47.69	ug/L		98
78) 1,1,2-trichloroethane	6.245	83	57499	46.93	ug/L		99
79) tetrachloroethene	6.361	164	73418	47.16	ug/L		98
80) 1,3-dichloropropane	6.391	76	121618	48.70	ug/L		93
81) 2-hexanone	6.410	58	155033	192.81	ug/L		96
82) butyl acetate	6.507	56	58894	45.01	ug/L		96
83) dibromochloromethane	6.587	129	83003	47.58	ug/L		97
84) 1,2-dibromoethane	6.696	107	77183	47.78	ug/L		100
85) n-butyl ether	7.190	57	296536	45.42	ug/L		99
86) chlorobenzene	7.129	112	220088	46.21	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.196	131	77851	47.42	ug/L		99
88) ethylbenzene	7.208	91	354798	45.73	ug/L		98
89) m,p-xylene	7.324	106	288765	92.21	ug/L		99
90) o-xylene	7.678	106	142964	46.37	ug/L		97
91) styrene	7.690	104	236024	46.49	ug/L		99
92) bromoform	7.861	173	63133	46.04	ug/L		99
93) butyl acrylate	7.598	55	157473	47.97	ug/L		98
94) n-amyl acetate	7.806	70	68025	49.56	ug/L		91
95) isopropylbenzene	8.013	105	365811	47.00	ug/L		99
96) cis-1,4-dichloro-2-butene	8.056	88	32818	30.41	ug/L		96
99) bromobenzene	8.324	156	99439	45.85	ug/L		95
100) 1,1,2,2-tetrachloroethane	8.287	83	98770	47.78	ug/L		93
101) trans-1,4-dichloro-2-b...	8.324	53	26350	40.85	ug/L		91
102) 1,2,3-trichloropropane	8.348	110	33216	47.15	ug/L		98
103) n-propylbenzene	8.409	91	394057	46.05	ug/L		99
104) 2-chlorotoluene	8.501	126	88029	46.86	ug/L		98
105) 4-chlorotoluene	8.617	126	88352	46.38	ug/L		99
106) 1,3,5-trimethylbenzene	8.580	105	276992	45.86	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166753.d
Acq On : 15 Jul 2021 12:20 am
Operator : BridgetK
Sample : jd28016-8msd Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:43 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

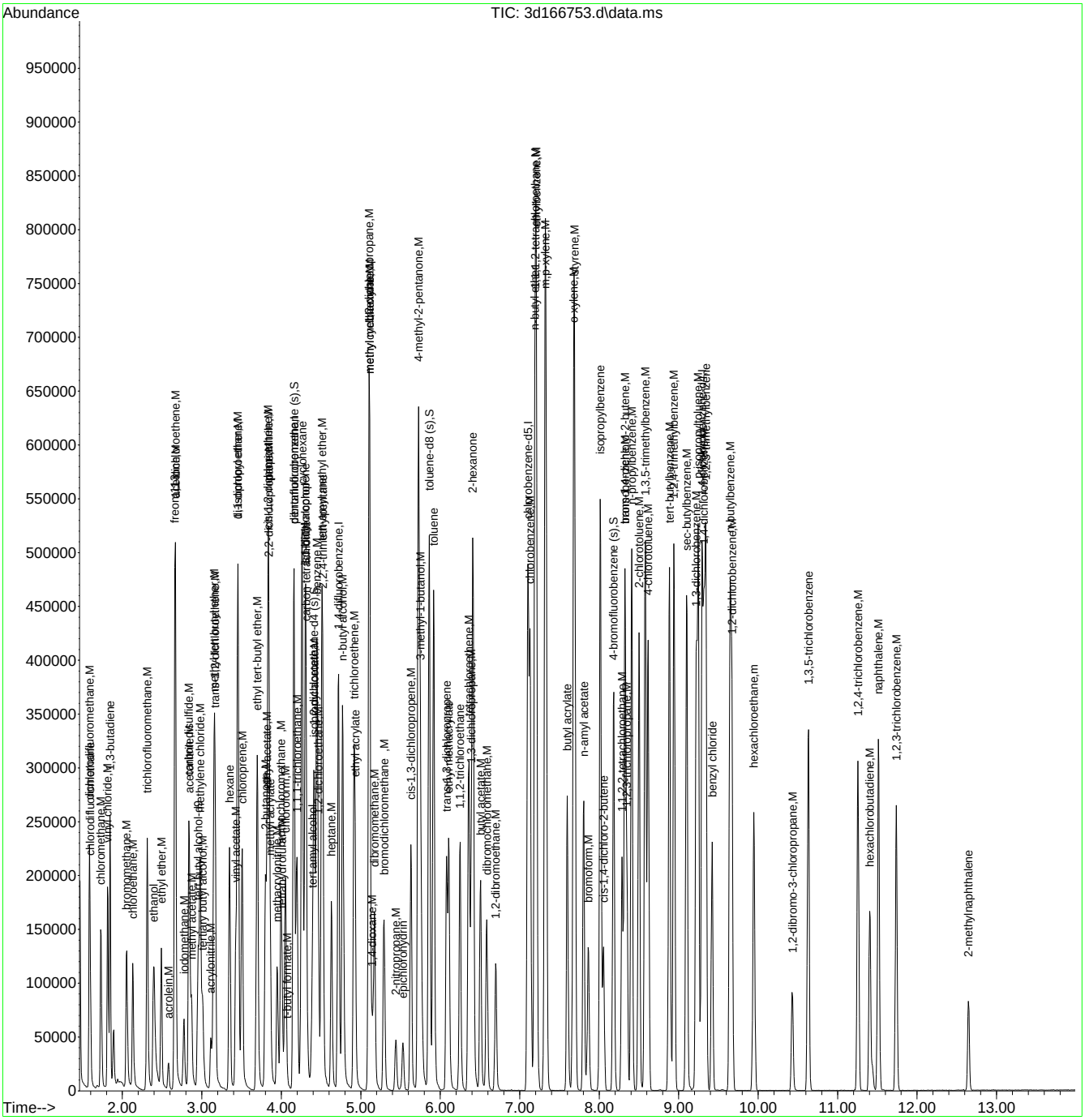
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) tert-butylbenzene	8.885	134	67605	48.74	ug/L	91
108) 1,2,4-trimethylbenzene	8.940	105	286158	45.56	ug/L	99
109) sec-butylbenzene	9.098	105	337413	48.54	ug/L	99
110) 1,3-dichlorobenzene	9.220	146	173798	46.91	ug/L	98
111) p-isopropyltoluene	9.245	119	286531	46.26	ug/L	99
112) 1,4-dichlorobenzene	9.318	146	170710	45.05	ug/L	99
113) 1,2,3-trimethylbenzene	9.342	105	289722	45.14	ug/L	100
114) benzyl chloride	9.421	91	158750	38.81	ug/L	97
115) 1,2-dichlorobenzene	9.671	146	164014	47.12	ug/L	96
116) n-butylbenzene	9.647	92	130780	50.65	ug/L	98
117) 1,2-dibromo-3-chloropr...	10.433	157	29096	47.92	ug/L	96
118) 1,3,5-trichlorobenzene	10.634	180	119920	49.08	ug/L	96
120) 1,2,4-trichlorobenzene	11.256	180	104736	50.00	ug/L	99
121) hexachlorobutadiene	11.403	225	36119	49.27	ug/L	97
122) naphthalene	11.512	128	272770	50.63	ug/L	99
123) 1,2,3-trichlorobenzene	11.738	180	87183	50.61	ug/L	94
124) hexachloroethane	9.946	201	49659	46.80	ug/L	97
125) 2-methylnaphthalene	12.646	142	42802	21.44	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166753.d
Acq On : 15 Jul 2021 12:20 am
Operator : BridgetK
Sample : jd28016-8msd Inst : MS3D
Misc : MS52217,V3D7090,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

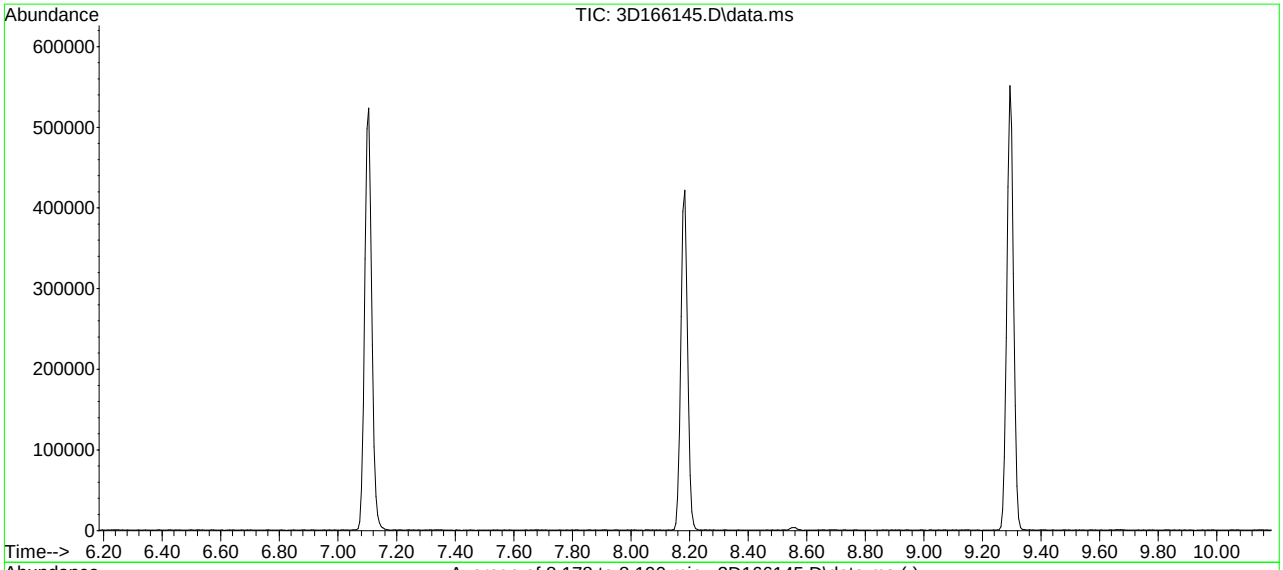
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:22:43 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

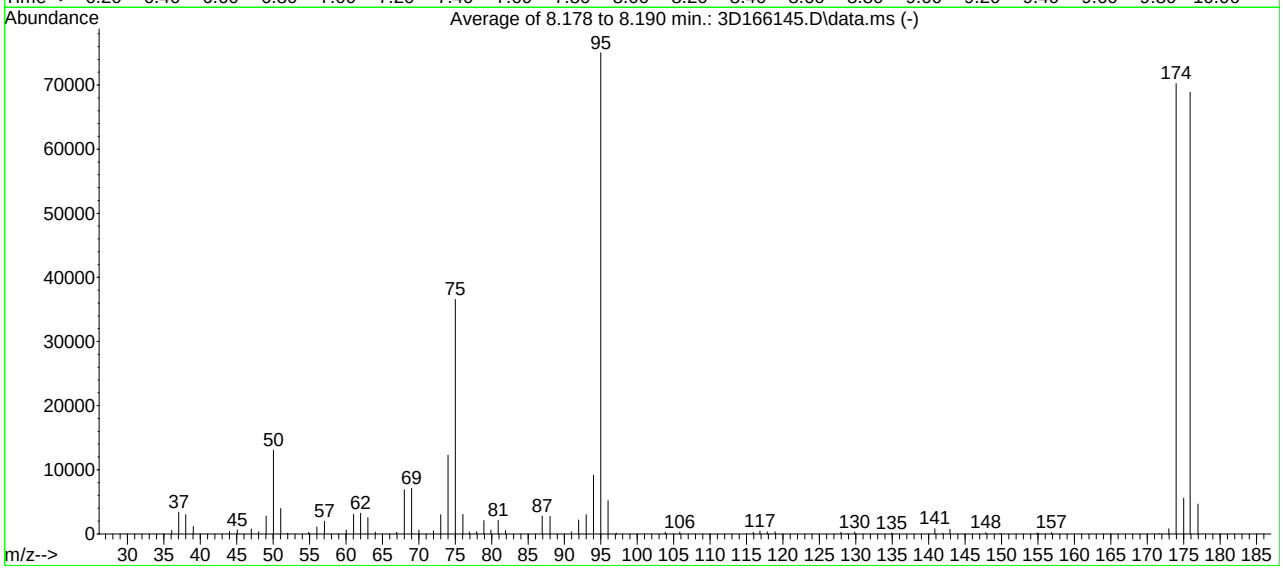


SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V3D7065\3D166145.D Vial: 2
Acq On : 29 Jun 2021 8:50 pm Operator: brittank
Sample : bfb Inst : MS3D
Misc : MS51769,V3D7065,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021





AutoFind: Scans 1103, 1104, 1105; Background Corrected with Scan 1095

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	13059	PASS
75	95	30	60	48.7	36570	PASS
95	95	100	100	100.0	75024	PASS
96	95	5	9	6.9	5196	PASS
173	174	0.00	2	1.2	818	PASS
174	95	50	120	93.6	70240	PASS
175	174	5	9	8.0	5588	PASS
176	174	95	101	98.1	68888	PASS
177	176	5	9	6.8	4657	PASS

3D166145.D M3D7065.M Wed Jun 30 17:11:48 2021 3D

Average of 8.178 to 8.190 min.: 3D166145.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	564	52.00	129	69.00	7112	80.90	2103
37.05	3374	54.90	222	70.00	615	81.90	502
38.00	3000	56.00	1095	72.00	451	86.95	2776
39.05	1162	57.05	1991	73.00	3012	88.00	2718
44.00	387	60.05	600	74.00	12265	90.95	337
45.10	617	61.05	3044	75.00	36570	91.95	2163
47.00	781	62.00	3209	76.05	3044	93.00	2995
48.00	338	63.00	2521	76.95	305	94.00	9160
49.05	2789	64.05	306	77.95	335	95.00	75024
50.05	13059	66.95	249	78.95	2094	96.00	5196
51.05	3968	68.00	6911	79.90	585	97.15	116

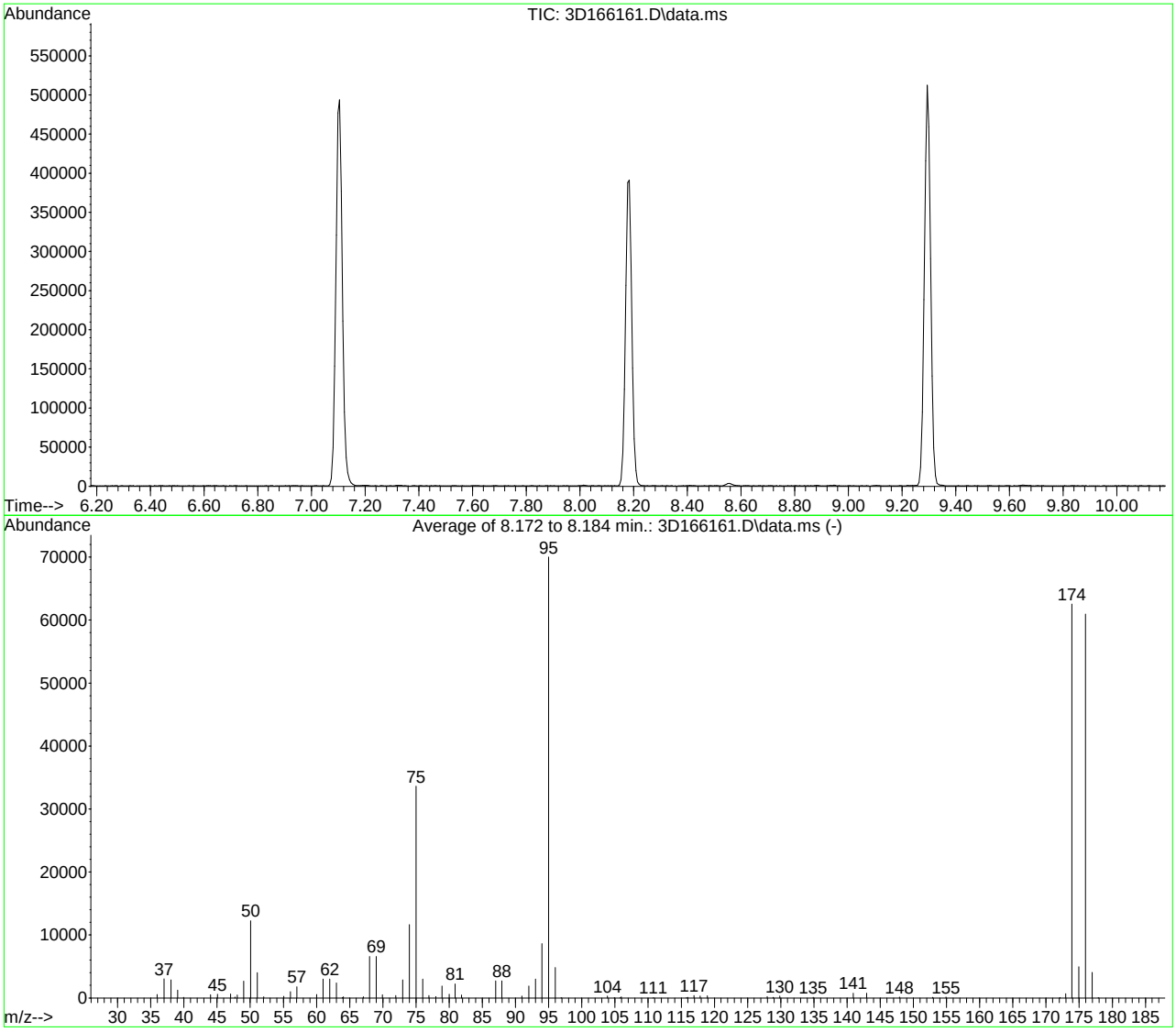
Average of 8.178 to 8.190 min.: 3D166145.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.85	240	141.90	52	175.90	68888		
105.85	289	142.90	736	176.95	4657		
115.90	248	147.85	217				
116.85	481	149.80	56				
117.85	319	154.90	177				
118.90	340	155.10	63				
127.95	251	156.85	193				
128.90	65	171.60	73				
129.85	270	172.95	818				
134.90	133	173.95	70240				
140.85	797	175.00	5588				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V3D7065\3D166161.D Vial: 18
Acq On : 30 Jun 2021 9:53 am Operator: brittank
Sample : bfb2 Inst : MS3D
Misc : MS51769,V3D7065,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021



AutoFind: Scans 1102, 1103, 1104; Background Corrected with Scan 1095

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	12259	PASS
75	95	30	60	48.1	33640	PASS
95	95	100	100	100.0	69992	PASS
96	95	5	9	6.9	4843	PASS
173	174	0.00	2	1.1	658	PASS
174	95	50	120	89.4	62549	PASS
175	174	5	9	7.9	4942	PASS
176	174	95	101	97.5	60970	PASS
177	176	5	9	6.7	4057	PASS

3D166161.D M3D7065.M Wed Jun 30 17:20:23 2021 3D

Average of 8.172 to 8.184 min.: 3D166161.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	536	50.05	12259	64.05	169	78.00	246
37.00	3035	51.05	4033	67.05	183	78.90	1919
38.05	2878	52.05	205	68.00	6574	80.00	576
39.05	1240	55.05	257	69.00	6601	80.90	2238
39.95	96	56.05	1002	69.95	503	81.85	461
44.00	525	57.05	1782	71.95	386	87.00	2705
45.05	602	60.00	569	73.00	2880	87.95	2709
47.05	619	61.00	2985	74.00	11632	90.95	289
47.70	136	62.00	3014	75.00	33640	92.00	1885
48.05	456	63.00	2398	76.00	2994	93.00	3014
49.00	2674	63.90	65	76.95	397	94.00	8614

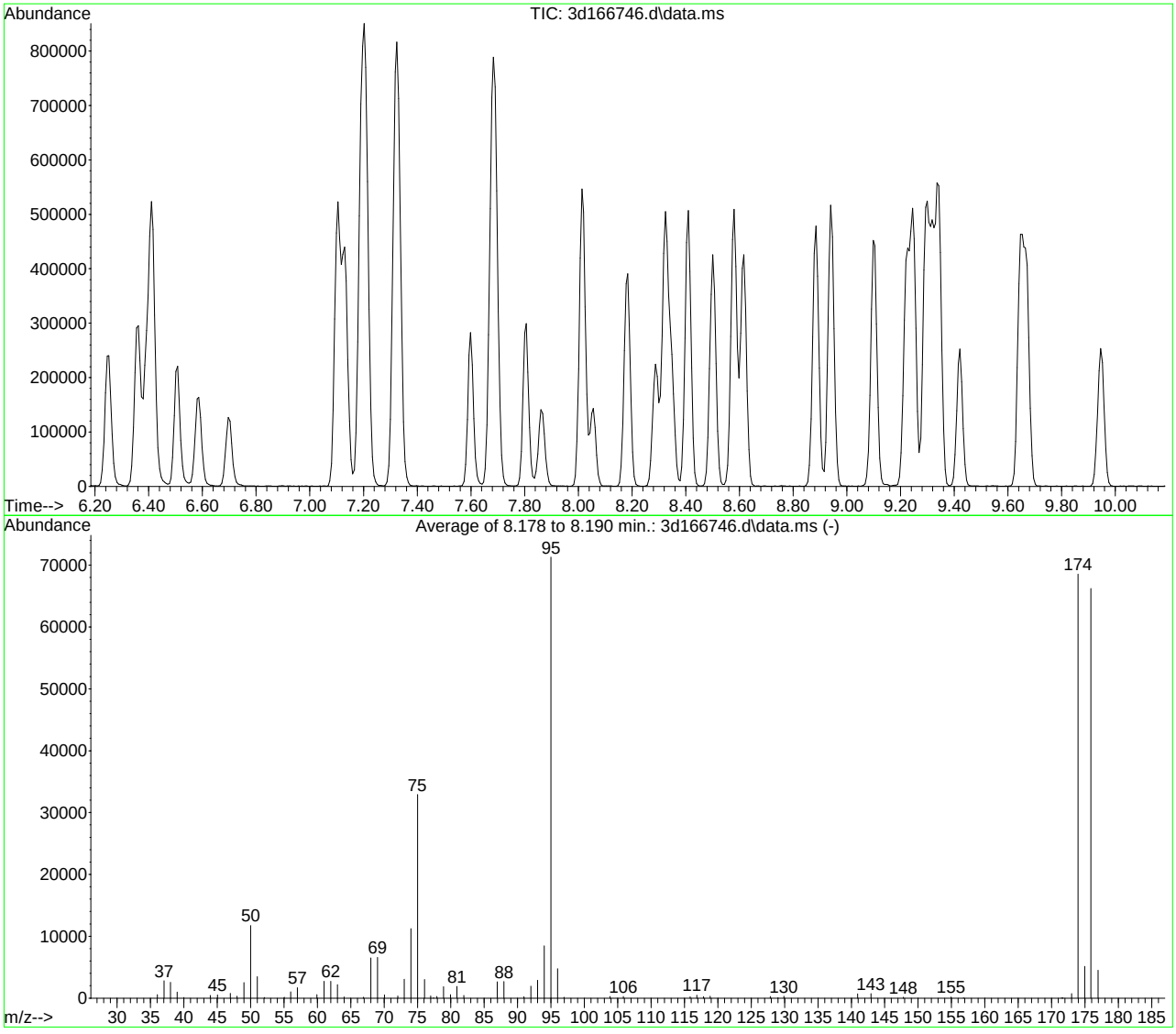
Average of 8.172 to 8.184 min.: 3D166161.D\data.ms
bfb2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	69992	117.85	309	172.10	50		
96.00	4843	118.95	370	172.95	658		
96.90	59	127.95	225	173.90	62549		
103.85	324	128.85	117	174.95	4942		
104.90	52	129.85	309	175.95	60970		
105.80	54	134.90	86	176.95	4057		
105.95	180	140.95	765	177.90	57		
110.80	54	142.95	761				
115.80	78	147.90	153				
116.00	108	152.90	117				
116.90	405	154.90	146				

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...21\v3d7090\3d166746.d Vial: 1
Acq On : 14 Jul 2021 9:26 pm Operator: BridgetK
Sample : BFB Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M3D7065.M (RTE Integrator)
Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021



AutoFind: Scans 1103, 1104, 1105; Background Corrected with Scan 1095

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.5	11743	PASS
75	95	30	60	46.2	32904	PASS
95	95	100	100	100.0	71285	PASS
96	95	5	9	6.7	4741	PASS
173	174	0.00	2	1.1	730	PASS
174	95	50	120	96.2	68549	PASS
175	174	5	9	7.5	5116	PASS
176	174	95	101	96.6	66245	PASS
177	176	5	9	6.8	4513	PASS

3d166746.d M3D7065.M Thu Jul 15 21:18:04 2021

Average of 8.178 to 8.190 min.: 3d166746.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	556	51.00	3489	68.00	6512	78.90	1836
37.05	2789	52.10	119	69.00	6576	79.95	575
38.00	2550	55.05	160	70.05	535	80.90	1882
39.00	993	56.00	1019	72.05	348	81.95	434
40.00	99	57.00	1693	73.00	3067	86.95	2620
43.95	434	59.95	576	74.00	11245	87.95	2682
45.05	537	61.00	2718	75.00	32904	90.95	221
46.95	756	62.00	2724	76.05	3031	92.00	1933
47.95	312	63.00	2199	77.00	342	93.00	2882
49.00	2515	64.00	191	77.40	56	94.00	8439
50.00	11743	66.90	165	77.90	267	95.00	71285

Average of 8.178 to 8.190 min.: 3d166746.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	4741	140.95	706	176.95	4513		
96.95	139	142.95	728				
103.85	267	147.80	156				
105.85	295	154.95	205				
115.85	230	156.80	70				
116.85	463	171.50	53				
117.85	237	171.70	71				
118.85	319	173.00	730				
127.85	284	173.95	68549				
129.00	63	174.95	5116				
129.90	310	175.90	66245				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166146.D
Acq On : 29 Jun 2021 9:21 pm
Operator : brittank
Sample : ic7065-0.2
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 17:12:51 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.953	65	139715	500.00	ug/L	0.00
5) pentafluorobenzene	4.154	168	258179	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	327354	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	282692	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	141792	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	96796	50.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%			
52) 1,2-dichloroethane-d4 (s)	4.410	65	100936	53.93	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 107.86%			
74) toluene-d8 (s)	5.861	98	377594	52.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.28%			
98) 4-bromofluorobenzene (s)	8.178	95	131365	50.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.008	59	277	0.85	ug/L #	17
3) ethanol	2.386	45	663	20.16	ug/L #	34
9) vinyl chloride	1.813	62	655	0.22	ug/L	87
10) 1,3-butadiene	1.844	54	390	0.19	ug/L #	76
13) trichlorofluoromethane	2.319	101	510	0.16	ug/L	67
22) methylene chloride	2.978	84	504	0.27	ug/L	81
24) methyl tert butyl ether	3.148	73	938	0.17	ug/L	84
25) trans-1,2-dichloroethene	3.160	96	292	0.16	ug/L #	67
26) di-isopropyl ether	3.453	45	1068	0.19	ug/L	83
28) 1,1-dichloroethane	3.447	63	728	0.24	ug/L #	49
29) chloroprene	3.508	53	417	0.16	ug/L	72
33) ethyl tert-butyl ether	3.697	59	1076	0.18	ug/L #	74
35) 2,2-dichloropropane	3.849	77	593	0.21	ug/L	83
36) cis-1,2-dichloroethene	3.831	96	438	0.22	ug/L	78
38) propionitrile	3.849	54	637	1.88	ug/L	59
39) bromochloromethane	4.002	128	205	0.19	ug/L #	38
41) chloroform	4.051	85	529	0.26	ug/L #	65
45) 1,1,1-trichloroethane	4.197	97	488	0.17	ug/L #	1
46) cyclohexane	4.252	84	423	0.16	ug/L #	61
47) 1,1-dichloropropene	4.300	75	495	0.20	ug/L #	62
53) n-butyl alcohol	4.782	56	729	8.39	ug/L	73
54) 2,2,4-trimethylpentane	4.520	57	617	0.18	ug/L #	30
55) benzene	4.441	78	1357	0.20	ug/L	90
59) 1,2-dichloroethane	4.453	62	606	0.27	ug/L #	50
60) trichloroethene	4.922	130	316	0.15	ug/L	94
61) ethyl acrylate	4.934	55	465	0.18	ug/L	72
63) 2-chloroethyl vinyl ether	5.489	63	1113	0.87	ug/L	86
65) 1,2-dichloropropane	5.105	63	245	0.14	ug/L #	48
70) cis-1,3-dichloropropene	5.629	75	502	0.17	ug/L #	71
71) 4-methyl-2-pentanone	5.727	58	694	0.79	ug/L	93
72) 3-methyl-1-butanol	5.757	55	390	3.00	ug/L #	49
75) toluene	5.916	92	1081	0.25	ug/L	88
76) trans-1,3-dichloropropene	6.087	75	511	0.19	ug/L #	46
77) ethyl methacrylate	6.123	69	469	0.18	ug/L #	69
80) 1,3-dichloropropane	6.391	76	473	0.17	ug/L #	44
81) 2-hexanone	6.416	58	559	0.62	ug/L #	64
84) 1,2-dibromoethane	6.696	107	327	0.18	ug/L #	48
85) n-butyl ether	7.190	57	1416	0.20	ug/L	81
86) chlorobenzene	7.135	112	1140	0.23	ug/L	85
87) 1,1,1,2-tetrachloroethane	7.208	131	356	0.19	ug/L #	39
88) ethylbenzene	7.208	91	1848	0.23	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166146.D
Acq On : 29 Jun 2021 9:21 pm
Operator : brittank
Sample : ic7065-0.2
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 17:12:51 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

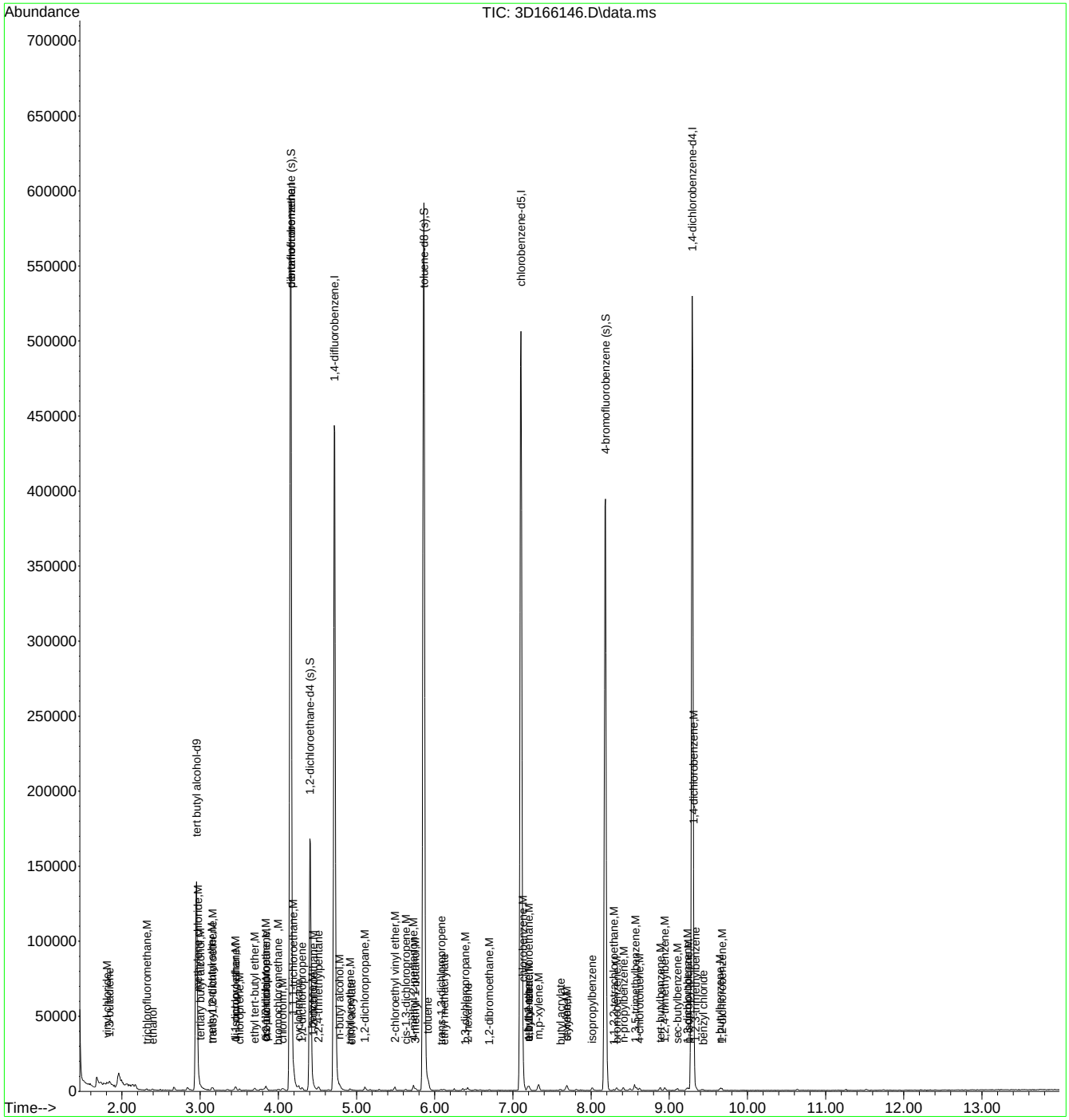
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
89) m,p-xylene	7.324	106	1487	0.45	ug/L		93
90) o-xylene	7.684	106	661	0.20	ug/L		95
91) styrene	7.696	104	1071	0.19	ug/L		90
93) butyl acrylate	7.617	55	634	0.17	ug/L	#	35
95) isopropylbenzene	8.019	105	1933	0.23	ug/L		92
99) bromobenzene	8.330	156	512	0.22	ug/L	#	60
100) 1,1,2,2-tetrachloroethane	8.287	83	525	0.24	ug/L		87
103) n-propylbenzene	8.409	91	2141	0.24	ug/L		82
105) 4-chlorotoluene	8.623	126	341	0.16	ug/L	#	25
106) 1,3,5-trimethylbenzene	8.574	105	1500	0.23	ug/L		72
107) tert-butylbenzene	8.885	134	313	0.20	ug/L	#	55
108) 1,2,4-trimethylbenzene	8.946	105	1482	0.22	ug/L		81
109) sec-butylbenzene	9.104	105	1498	0.20	ug/L		91
110) 1,3-dichlorobenzene	9.226	146	801	0.20	ug/L		87
111) p-isopropyltoluene	9.245	119	1351	0.20	ug/L		94
112) 1,4-dichlorobenzene	9.318	146	820	0.20	ug/L		81
113) 1,2,3-trimethylbenzene	9.342	105	1508	0.22	ug/L		90
114) benzyl chloride	9.428	91	859	0.18	ug/L		56
115) 1,2-dichlorobenzene	9.677	146	767	0.20	ug/L		92
116) n-butylbenzene	9.647	92	452	0.15	ug/L	#	75

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166146.D
Acq On : 29 Jun 2021 9:21 pm
Operator : brittank
Sample : ic7065-0.2
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 17:12:51 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166147.D
Acq On : 29 Jun 2021 9:46 pm
Operator : brittank
Sample : ic7065-0.5
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 30 17:16:39 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.953	65	139102	500.00	ug/L		0.00
5) pentafluorobenzene	4.160	168	256344	50.00	ug/L		0.00
51) 1,4-difluorobenzene	4.721	114	333475	50.00	ug/L		0.00
73) chlorobenzene-d5	7.105	117	285139	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	9.293	152	141092	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	4.160	113	95883	50.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%				
52) 1,2-dichloroethane-d4 (s)	4.410	65	98355	51.58	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.16%				
74) toluene-d8 (s)	5.861	98	379098	52.40	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.80%				
98) 4-bromofluorobenzene (s)	8.178	95	128498	49.88	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.76%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.008	59	943	2.89	ug/L		74
3) ethanol	2.392	45	1623	49.56	ug/L		99
4) 1,4-dioxane	5.142	88	404	12.08	ug/L	#	19
7) dichlorodifluoromethane	1.588	85	1169	0.47	ug/L		90
8) chloromethane	1.734	50	1621	0.59	ug/L		85
9) vinyl chloride	1.813	62	1680	0.56	ug/L		87
10) 1,3-butadiene	1.844	54	981	0.49	ug/L		96
11) bromomethane	2.063	94	725	0.43	ug/L		90
13) trichlorofluoromethane	2.313	101	1459	0.47	ug/L		92
14) ethyl ether	2.490	74	607	0.54	ug/L	#	77
17) 1,1-dichloroethene	2.673	96	720	0.46	ug/L	#	80
19) acetonitrile	2.844	41	1642	5.65	ug/L		89
21) carbon disulfide	2.837	76	2347	0.53	ug/L		96
22) methylene chloride	2.978	84	1013	0.55	ug/L	#	74
23) methyl acetate	2.880	43	936	0.55	ug/L		47
24) methyl tert butyl ether	3.154	73	2269	0.42	ug/L		99
25) trans-1,2-dichloroethene	3.167	96	954	0.53	ug/L		94
26) di-isopropyl ether	3.453	45	2465	0.45	ug/L		97
28) 1,1-dichloroethane	3.453	63	1637	0.55	ug/L		83
29) chloroprene	3.508	53	1027	0.39	ug/L		84
31) hexane	3.350	56	472	0.42	ug/L	#	64
33) ethyl tert-butyl ether	3.697	59	2748	0.47	ug/L		84
35) 2,2-dichloropropane	3.849	77	1430	0.52	ug/L		84
36) cis-1,2-dichloroethene	3.831	96	933	0.48	ug/L		90
38) propionitrile	3.843	54	1634	4.85	ug/L	#	73
39) bromochloromethane	3.996	128	459	0.44	ug/L	#	72
40) tetrahydrofuran	4.002	42	394	0.63	ug/L	#	31
41) chloroform	4.057	85	1192	0.59	ug/L		84
42) t-butyl formate	4.075	59	610	0.44	ug/L		84
45) 1,1,1-trichloroethane	4.197	97	1375	0.47	ug/L	#	19
46) cyclohexane	4.258	84	1460	0.54	ug/L	#	50
47) 1,1-dichloropropene	4.307	75	1215	0.49	ug/L		96
49) carbon tetrachloride	4.313	117	994	0.39	ug/L		85
50) tert amyl alcohol	4.392	55	299	2.51	ug/L	#	65
53) n-butyl alcohol	4.776	56	2224	25.12	ug/L		85
54) 2,2,4-trimethylpentane	4.514	57	1699	0.48	ug/L	#	51
55) benzene	4.453	78	3558	0.52	ug/L		96
56) tert-amyl methyl ether	4.514	87	542	0.37	ug/L	#	45
59) 1,2-dichloroethane	4.459	62	1205	0.53	ug/L		86
60) trichloroethene	4.916	130	990	0.45	ug/L		90
61) ethyl acrylate	4.941	55	1072	0.41	ug/L		72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166147.D
Acq On : 29 Jun 2021 9:46 pm
Operator : brittank
Sample : ic7065-0.5
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 30 17:16:39 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

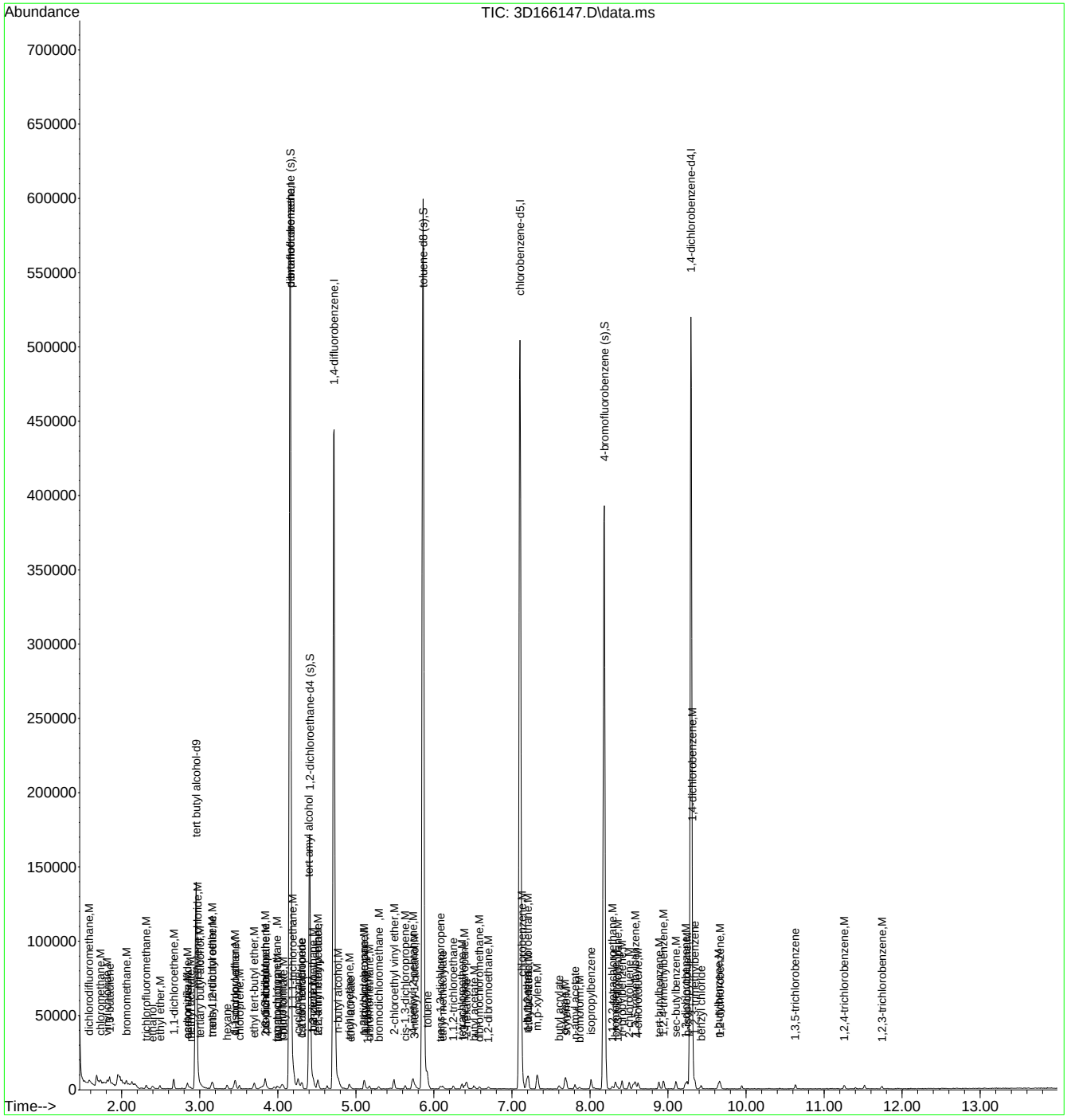
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
63) 2-chloroethyl vinyl ether	5.489	63	2746	2.11 ug/L	95
65) 1,2-dichloropropane	5.099	63	812	0.46 ug/L #	48
66) dibromomethane	5.166	93	524	0.46 ug/L #	56
67) methylcyclohexane	5.105	83	1000	0.37 ug/L	90
68) bromodichloromethane	5.288	83	1178	0.50 ug/L	67
70) cis-1,3-dichloropropene	5.630	75	1294	0.42 ug/L	85
71) 4-methyl-2-pentanone	5.733	58	1724	1.94 ug/L #	75
72) 3-methyl-1-butanol	5.758	55	1228	9.26 ug/L	80
75) toluene	5.922	92	2566	0.59 ug/L #	79
76) trans-1,3-dichloropropene	6.087	75	1125	0.42 ug/L	83
77) ethyl methacrylate	6.111	69	1361	0.52 ug/L	80
78) 1,1,2-trichloroethane	6.251	83	709	0.52 ug/L #	60
79) tetrachloroethene	6.361	164	855	0.50 ug/L #	76
80) 1,3-dichloropropane	6.392	76	1301	0.46 ug/L	76
81) 2-hexanone	6.416	58	1690	1.87 ug/L	88
82) butyl acetate	6.520	56	730	0.51 ug/L #	64
83) dibromochloromethane	6.587	129	857	0.43 ug/L	70
84) 1,2-dibromoethane	6.696	107	919	0.51 ug/L	91
85) n-butyl ether	7.190	57	3888	0.55 ug/L	91
86) chlorobenzene	7.135	112	2719	0.54 ug/L	94
87) 1,1,1,2-tetrachloroethane	7.196	131	878	0.47 ug/L	80
88) ethylbenzene	7.215	91	4630	0.57 ug/L	89
89) m,p-xylene	7.318	106	3593	1.08 ug/L	93
90) o-xylene	7.672	106	1678	0.50 ug/L	83
91) styrene	7.702	104	2860	0.51 ug/L	74
92) bromoform	7.867	173	690	0.42 ug/L	91
93) butyl acrylate	7.605	55	1698	0.44 ug/L	92
94) n-amyl acetate	7.812	70	671	0.41 ug/L #	49
95) isopropylbenzene	8.013	105	4443	0.53 ug/L	94
99) bromobenzene	8.324	156	1256	0.53 ug/L	81
100) 1,1,2,2-tetrachloroethane	8.281	83	1163	0.52 ug/L	89
102) 1,2,3-trichloropropane	8.355	110	425	0.55 ug/L #	36
103) n-propylbenzene	8.410	91	4937	0.55 ug/L	90
104) 2-chlorotoluene	8.501	126	1043	0.51 ug/L #	78
105) 4-chlorotoluene	8.617	126	1098	0.52 ug/L	85
106) 1,3,5-trimethylbenzene	8.580	105	3286	0.51 ug/L	88
107) tert-butylbenzene	8.885	134	662	0.42 ug/L #	48
108) 1,2,4-trimethylbenzene	8.940	105	3704	0.55 ug/L	91
109) sec-butylbenzene	9.098	105	3870	0.51 ug/L	93
110) 1,3-dichlorobenzene	9.226	146	1972	0.48 ug/L #	74
111) p-isopropyltoluene	9.245	119	3817	0.58 ug/L	94
112) 1,4-dichlorobenzene	9.318	146	2226	0.55 ug/L	93
113) 1,2,3-trimethylbenzene	9.342	105	3559	0.52 ug/L	81
114) benzyl chloride	9.428	91	2266	0.46 ug/L	56
115) 1,2-dichlorobenzene	9.671	146	1759	0.45 ug/L	97
116) n-butylbenzene	9.647	92	1409	0.48 ug/L	89
118) 1,3,5-trichlorobenzene	10.635	180	1211	0.43 ug/L	89
120) 1,2,4-trichlorobenzene	11.257	180	1020	0.40 ug/L	93
123) 1,2,3-trichlorobenzene	11.738	180	865	0.42 ug/L	78

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166147.D
Acq On : 29 Jun 2021 9:46 pm
Operator : brittank
Sample : ic7065-0.5
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 30 17:16:39 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166148.D
Acq On : 29 Jun 2021 10:11 pm
Operator : brittank
Sample : ic7065-1
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 30 17:17:43 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.953	65	135848	500.00	ug/L		0.00
5) pentafluorobenzene	4.160	168	255142	50.00	ug/L		0.00
51) 1,4-difluorobenzene	4.721	114	331572	50.00	ug/L		0.00
73) chlorobenzene-d5	7.105	117	281171	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	9.293	152	143495	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	4.160	113	95732	50.30	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.60%				
52) 1,2-dichloroethane-d4 (s)	4.410	65	99417	52.44	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.88%				
74) toluene-d8 (s)	5.861	98	378735	53.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.18%				
98) 4-bromofluorobenzene (s)	8.184	95	131452	50.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.36%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.014	59	1696	5.33	ug/L		75
3) ethanol	2.392	45	3196	99.93	ug/L		82
4) 1,4-dioxane	5.148	88	712	21.80	ug/L		89
6) chlorodifluoromethane	1.594	51	1764	0.93	ug/L		87
7) dichlorodifluoromethane	1.588	85	2391	0.96	ug/L		89
8) chloromethane	1.728	50	3159	1.16	ug/L		97
9) vinyl chloride	1.813	62	2959	0.99	ug/L		95
10) 1,3-butadiene	1.844	54	1959	0.98	ug/L		90
11) bromomethane	2.063	94	1633	0.96	ug/L		91
12) chloroethane	2.136	64	2060	1.12	ug/L		84
13) trichlorofluoromethane	2.313	101	2948	0.95	ug/L		97
14) ethyl ether	2.490	74	872	0.77	ug/L	#	78
16) freon 113	2.661	151	1195	0.80	ug/L		91
17) 1,1-dichloroethene	2.667	96	1445	0.92	ug/L		88
18) acetone	2.667	58	1265	4.63	ug/L		96
19) acetonitrile	2.844	41	3522	12.18	ug/L		75
21) carbon disulfide	2.837	76	4710	1.07	ug/L		96
22) methylene chloride	2.978	84	1951	1.06	ug/L		81
23) methyl acetate	2.874	43	1932	1.14	ug/L		82
24) methyl tert butyl ether	3.154	73	4893	0.90	ug/L		98
25) trans-1,2-dichloroethene	3.167	96	1818	1.01	ug/L		87
26) di-isopropyl ether	3.453	45	5154	0.95	ug/L		89
27) 2-butanone	3.807	72	1235	3.67	ug/L	#	73
28) 1,1-dichloroethane	3.453	63	3239	1.10	ug/L		90
29) chloroprene	3.502	53	2354	0.90	ug/L		95
31) hexane	3.356	56	910	0.81	ug/L		90
33) ethyl tert-butyl ether	3.697	59	5323	0.92	ug/L		94
34) ethyl acetate	3.825	45	304	0.85	ug/L	#	7
35) 2,2-dichloropropane	3.843	77	2580	0.94	ug/L		92
36) cis-1,2-dichloroethene	3.837	96	1921	1.00	ug/L		96
38) propionitrile	3.837	54	3090	9.22	ug/L		98
39) bromochloromethane	4.002	128	1075	1.03	ug/L		77
40) tetrahydrofuran	4.014	42	816	1.30	ug/L		87
41) chloroform	4.057	85	2275	1.13	ug/L		86
42) t-butyl formate	4.075	59	1246	0.89	ug/L		90
44) methacrylonitrile	3.953	67	775	0.87	ug/L		91
45) 1,1,1-trichloroethane	4.197	97	2759	0.95	ug/L	#	22
46) cyclohexane	4.258	84	2918	1.09	ug/L	#	85
47) 1,1-dichloropropene	4.301	75	2357	0.95	ug/L		86
48) iso-butyl alcohol	4.301	43	1441	12.47	ug/L		78
49) carbon tetrachloride	4.313	117	2360	0.93	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166148.D
Acq On : 29 Jun 2021 10:11 pm
Operator : brittank
Sample : ic7065-1
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 30 17:17:43 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) tert amyl alcohol	4.386	55	557	4.70	ug/L	#	59
53) n-butyl alcohol	4.776	56	4015	45.60	ug/L		92
54) 2,2,4-trimethylpentane	4.526	57	3655	1.04	ug/L		85
55) benzene	4.447	78	7178	1.05	ug/L		86
56) tert-amyl methyl ether	4.514	87	1245	0.86	ug/L	#	82
57) heptane	4.636	71	716	0.76	ug/L		89
59) 1,2-dichloroethane	4.465	62	2592	1.14	ug/L		81
60) trichloroethene	4.922	130	2101	0.96	ug/L		88
61) ethyl acrylate	4.935	55	2351	0.91	ug/L		91
62) 2-nitropropane	5.441	41	637	1.07	ug/L	#	79
63) 2-chloroethyl vinyl ether	5.483	63	5696	4.41	ug/L		96
64) methyl methacrylate	5.105	100	553	0.89	ug/L	#	45
65) 1,2-dichloropropane	5.099	63	1642	0.93	ug/L		93
66) dibromomethane	5.172	93	1099	0.98	ug/L		83
67) methylcyclohexane	5.111	83	2284	0.85	ug/L		87
68) bromodichloromethane	5.294	83	2180	0.93	ug/L		96
69) epichlorohydrin	5.532	57	941	3.71	ug/L		60
70) cis-1,3-dichloropropene	5.630	75	2790	0.91	ug/L		96
71) 4-methyl-2-pentanone	5.727	58	3530	3.99	ug/L		96
72) 3-methyl-1-butanol	5.745	55	2515	19.08	ug/L		92
75) toluene	5.916	92	4682	1.09	ug/L		96
76) trans-1,3-dichloropropene	6.087	75	2431	0.91	ug/L		95
77) ethyl methacrylate	6.111	69	2208	0.85	ug/L		79
78) 1,1,2-trichloroethane	6.245	83	1402	1.05	ug/L	#	82
79) tetrachloroethene	6.361	164	1797	1.07	ug/L		84
80) 1,3-dichloropropane	6.392	76	2692	0.96	ug/L		89
81) 2-hexanone	6.416	58	3512	3.94	ug/L		93
82) butyl acetate	6.507	56	1538	1.10	ug/L	#	72
83) dibromochloromethane	6.581	129	1795	0.91	ug/L		97
84) 1,2-dibromoethane	6.702	107	1705	0.96	ug/L		87
85) n-butyl ether	7.190	57	7302	1.05	ug/L		95
86) chlorobenzene	7.129	112	5379	1.09	ug/L		89
87) 1,1,1,2-tetrachloroethane	7.202	131	1726	0.94	ug/L		94
88) ethylbenzene	7.208	91	8670	1.08	ug/L		94
89) m,p-xylene	7.324	106	7037	2.14	ug/L		95
90) o-xylene	7.678	106	3462	1.05	ug/L		92
91) styrene	7.696	104	5286	0.96	ug/L		92
92) bromoform	7.861	173	1349	0.84	ug/L		80
93) butyl acrylate	7.599	55	3407	0.89	ug/L		88
94) n-amyl acetate	7.812	70	1359	0.84	ug/L	#	74
95) isopropylbenzene	8.019	105	8639	1.05	ug/L		97
99) bromobenzene	8.330	156	2319	0.97	ug/L		93
100) 1,1,2,2-tetrachloroethane	8.288	83	2332	1.03	ug/L		84
102) 1,2,3-trichloropropane	8.355	110	653	0.83	ug/L		93
103) n-propylbenzene	8.409	91	9763	1.06	ug/L		98
104) 2-chlorotoluene	8.507	126	2115	1.02	ug/L		98
105) 4-chlorotoluene	8.617	126	2096	0.98	ug/L		89
106) 1,3,5-trimethylbenzene	8.580	105	6698	1.02	ug/L		93
107) tert-butylbenzene	8.885	134	1535	0.95	ug/L	#	84
108) 1,2,4-trimethylbenzene	8.940	105	6600	0.97	ug/L		96
109) sec-butylbenzene	9.098	105	7810	1.01	ug/L		90
110) 1,3-dichlorobenzene	9.226	146	4320	1.04	ug/L		90
111) p-isopropyltoluene	9.245	119	6748	1.00	ug/L		91
112) 1,4-dichlorobenzene	9.324	146	4313	1.06	ug/L		86
113) 1,2,3-trimethylbenzene	9.342	105	7112	1.03	ug/L		92
114) benzyl chloride	9.421	91	3872	0.78	ug/L		81
115) 1,2-dichlorobenzene	9.671	146	3945	1.00	ug/L		89
116) n-butylbenzene	9.647	92	2659	0.88	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166148.D
Acq On : 29 Jun 2021 10:11 pm
Operator : brittank
Sample : ic7065-1
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 30 17:17:43 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

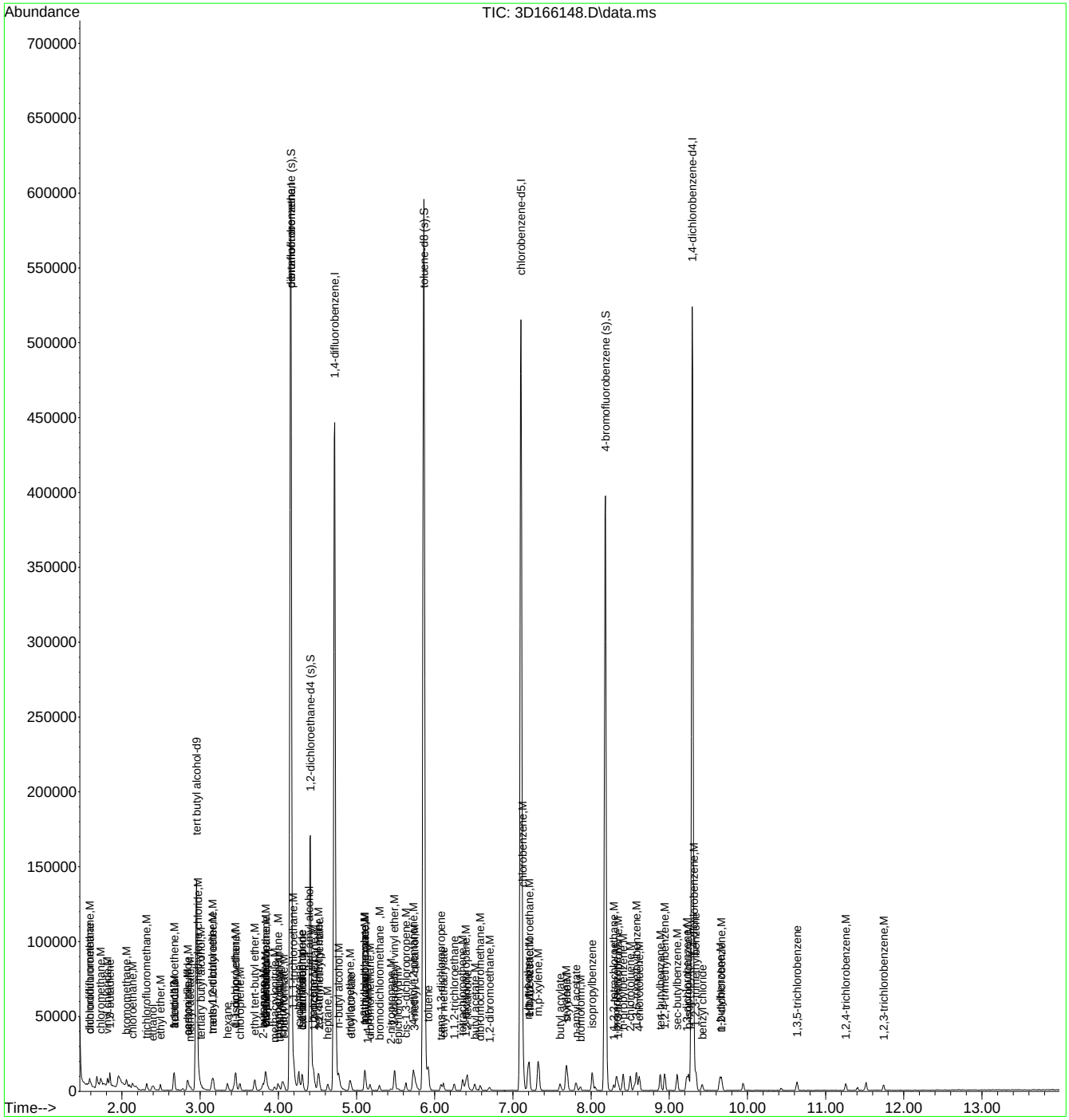
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
118) 1,3,5-trichlorobenzene	10.635	180	2603	0.90	ug/L	95
120) 1,2,4-trichlorobenzene	11.257	180	1998	0.78	ug/L	98
123) 1,2,3-trichlorobenzene	11.744	180	1673	0.79	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166148.D
Acq On : 29 Jun 2021 10:11 pm
Operator : brittank
Sample : ic7065-1
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 30 17:17:43 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166149.D
Acq On : 29 Jun 2021 10:35 pm
Operator : brittank
Sample : ic7065-2
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 30 17:18:34 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.953	65	130430	500.00	ug/L		0.00
5) pentafluorobenzene	4.160	168	252939	50.00	ug/L		0.00
51) 1,4-difluorobenzene	4.721	114	321922	50.00	ug/L		0.00
73) chlorobenzene-d5	7.105	117	274646	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	9.293	152	137800	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	4.160	113	92259	48.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.80%				
52) 1,2-dichloroethane-d4 (s)	4.410	65	95108	51.67	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.34%				
74) toluene-d8 (s)	5.861	98	371470	53.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.62%				
98) 4-bromofluorobenzene (s)	8.184	95	125412	49.85	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.70%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.008	59	3335	10.91	ug/L		96
3) ethanol	2.392	45	6027	196.28	ug/L		89
4) 1,4-dioxane	5.148	88	1448	46.18	ug/L		86
6) chlorodifluoromethane	1.594	51	3109	1.65	ug/L		82
7) dichlorodifluoromethane	1.588	85	4363	1.76	ug/L		97
8) chloromethane	1.728	50	5571	2.06	ug/L		94
9) vinyl chloride	1.813	62	5558	1.88	ug/L		98
10) 1,3-butadiene	1.844	54	3282	1.66	ug/L		96
11) bromomethane	2.057	94	2826	1.68	ug/L		92
12) chloroethane	2.136	64	4174	2.29	ug/L		95
13) trichlorofluoromethane	2.313	101	5831	1.90	ug/L		96
14) ethyl ether	2.490	74	1962	1.75	ug/L		97
16) freon 113	2.667	151	2488	1.68	ug/L		90
17) 1,1-dichloroethene	2.667	96	3005	1.94	ug/L		88
18) acetone	2.667	58	2139	7.90	ug/L		89
19) acetonitrile	2.843	41	5727	19.97	ug/L		99
20) iodomethane	2.776	142	2124	0.99	ug/L		95
21) carbon disulfide	2.837	76	7774	1.78	ug/L		98
22) methylene chloride	2.978	84	3675	2.02	ug/L		83
23) methyl acetate	2.874	43	3133	1.86	ug/L		98
24) methyl tert butyl ether	3.148	73	9058	1.68	ug/L		95
25) trans-1,2-dichloroethene	3.167	96	3109	1.75	ug/L		91
26) di-isopropyl ether	3.453	45	9151	1.71	ug/L		93
27) 2-butanone	3.807	72	2237	6.71	ug/L		87
28) 1,1-dichloroethane	3.453	63	5866	2.01	ug/L		98
29) chloroprene	3.508	53	4439	1.72	ug/L		92
31) hexane	3.349	56	1862	1.66	ug/L	#	81
33) ethyl tert-butyl ether	3.697	59	9743	1.70	ug/L		95
34) ethyl acetate	3.819	45	594	1.67	ug/L	#	65
35) 2,2-dichloropropane	3.849	77	5014	1.85	ug/L		98
36) cis-1,2-dichloroethene	3.831	96	3623	1.90	ug/L		89
38) propionitrile	3.837	54	6043	18.19	ug/L		93
39) bromochloromethane	3.996	128	1836	1.78	ug/L		94
40) tetrahydrofuran	4.020	42	1299	2.09	ug/L		83
41) chloroform	4.057	85	3865	1.94	ug/L		98
42) t-butyl formate	4.069	59	2129	1.54	ug/L	#	80
44) methacrylonitrile	3.947	67	1408	1.59	ug/L		91
45) 1,1,1-trichloroethane	4.197	97	5083	1.76	ug/L	#	64
46) cyclohexane	4.258	84	4897	1.84	ug/L		95
47) 1,1-dichloropropene	4.300	75	4231	1.73	ug/L		98
48) iso-butyl alcohol	4.300	43	2194	19.15	ug/L		82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166149.D
Acq On : 29 Jun 2021 10:35 pm
Operator : brittank
Sample : ic7065-2
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 30 17:18:34 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) carbon tetrachloride	4.313	117	4465	1.77	ug/L		89
50) tert amyl alcohol	4.392	55	1164	9.90	ug/L		85
53) n-butyl alcohol	4.770	56	7453	87.19	ug/L		97
54) 2,2,4-trimethylpentane	4.514	57	6671	1.95	ug/L		86
55) benzene	4.447	78	12199	1.84	ug/L		95
56) tert-amyl methyl ether	4.514	87	2453	1.76	ug/L	#	76
57) heptane	4.630	71	1691	1.86	ug/L		88
58) isopropyl acetate	4.416	87	772	1.46	ug/L	#	57
59) 1,2-dichloroethane	4.459	62	4492	2.04	ug/L		87
60) trichloroethene	4.916	130	3364	1.59	ug/L		96
61) ethyl acrylate	4.934	55	4878	1.93	ug/L		93
62) 2-nitropropane	5.447	41	1220	2.11	ug/L	#	80
63) 2-chloroethyl vinyl ether	5.483	63	10451	8.33	ug/L		93
64) methyl methacrylate	5.117	100	1019	1.69	ug/L	#	59
65) 1,2-dichloropropane	5.105	63	2923	1.71	ug/L		98
66) dibromomethane	5.172	93	2009	1.84	ug/L		99
67) methylcyclohexane	5.111	83	4431	1.71	ug/L		88
68) bromodichloromethane	5.294	83	3945	1.74	ug/L		90
69) epichlorohydrin	5.532	57	2128	8.65	ug/L		85
70) cis-1,3-dichloropropene	5.629	75	4948	1.67	ug/L		92
71) 4-methyl-2-pentanone	5.727	58	6860	7.98	ug/L		89
72) 3-methyl-1-butanol	5.751	55	4860	37.97	ug/L		94
75) toluene	5.922	92	8345	1.98	ug/L		88
76) trans-1,3-dichloropropene	6.081	75	4578	1.75	ug/L		97
77) ethyl methacrylate	6.111	69	4400	1.73	ug/L		95
78) 1,1,2-trichloroethane	6.251	83	2350	1.80	ug/L		92
79) tetrachloroethene	6.361	164	3228	1.97	ug/L		94
80) 1,3-dichloropropane	6.392	76	5058	1.85	ug/L		89
81) 2-hexanone	6.416	58	6880	7.90	ug/L		93
82) butyl acetate	6.507	56	2518	1.84	ug/L	#	82
83) dibromochloromethane	6.587	129	3409	1.77	ug/L		99
84) 1,2-dibromoethane	6.702	107	3209	1.84	ug/L		97
85) n-butyl ether	7.190	57	12740	1.88	ug/L		96
86) chlorobenzene	7.129	112	9484	1.97	ug/L		97
87) 1,1,1,2-tetrachloroethane	7.202	131	3141	1.75	ug/L		96
88) ethylbenzene	7.208	91	15966	2.03	ug/L		95
89) m,p-xylene	7.324	106	12222	3.81	ug/L		95
90) o-xylene	7.678	106	6385	1.98	ug/L		93
91) styrene	7.696	104	10188	1.89	ug/L		94
92) bromoform	7.867	173	2458	1.57	ug/L		89
93) butyl acrylate	7.599	55	6089	1.64	ug/L		91
94) n-amyl acetate	7.806	70	2384	1.51	ug/L	#	74
95) isopropylbenzene	8.013	105	15216	1.90	ug/L		95
99) bromobenzene	8.324	156	4254	1.85	ug/L		95
100) 1,1,2,2-tetrachloroethane	8.287	83	3767	1.74	ug/L		69
102) 1,2,3-trichloropropane	8.342	110	1458	1.92	ug/L		87
103) n-propylbenzene	8.409	91	17254	1.95	ug/L		97
104) 2-chlorotoluene	8.501	126	3515	1.76	ug/L		93
105) 4-chlorotoluene	8.617	126	3835	1.86	ug/L		94
106) 1,3,5-trimethylbenzene	8.580	105	11652	1.85	ug/L		93
107) tert-butylbenzene	8.885	134	2660	1.72	ug/L	#	77
108) 1,2,4-trimethylbenzene	8.940	105	12713	1.94	ug/L		92
109) sec-butylbenzene	9.098	105	13847	1.87	ug/L		97
110) 1,3-dichlorobenzene	9.226	146	7340	1.85	ug/L		96
111) p-isopropyltoluene	9.245	119	12465	1.93	ug/L		97
112) 1,4-dichlorobenzene	9.318	146	7646	1.95	ug/L		90
113) 1,2,3-trimethylbenzene	9.342	105	13170	1.98	ug/L		97
114) benzyl chloride	9.421	91	7377	1.55	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166149.D
Acq On : 29 Jun 2021 10:35 pm
Operator : brittank
Sample : ic7065-2
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 30 17:18:34 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

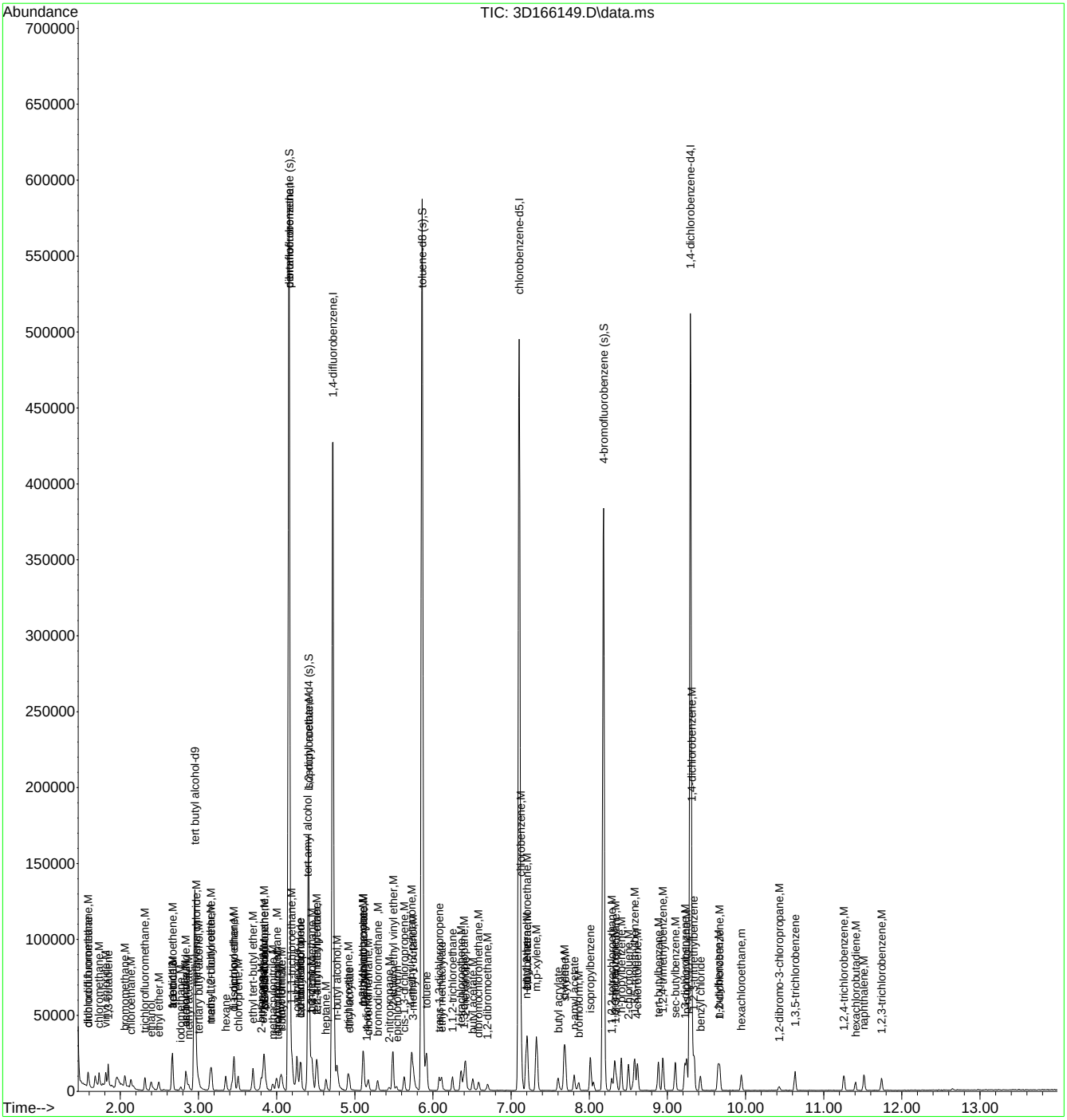
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) 1,2-dichlorobenzene	9.671	146	6700	1.77	ug/L	91
116) n-butylbenzene	9.647	92	5156	1.78	ug/L	92
117) 1,2-dibromo-3-chloropr...	10.433	157	1078	1.56	ug/L	92
118) 1,3,5-trichlorobenzene	10.635	180	4422	1.59	ug/L	84
120) 1,2,4-trichlorobenzene	11.256	180	3917	1.59	ug/L	88
121) hexachlorobutadiene	11.409	225	1349	1.66	ug/L	95
122) naphthalene	11.512	128	9108	1.46	ug/L	97
123) 1,2,3-trichlorobenzene	11.738	180	2935	1.45	ug/L	82
124) hexachloroethane	9.946	201	1859	1.55	ug/L	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166149.D
Acq On : 29 Jun 2021 10:35 pm
Operator : brittank
Sample : ic7065-2
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 30 17:18:34 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166150.D
Acq On : 29 Jun 2021 11:00 pm
Operator : brittank
Sample : ic7065-4
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 30 17:18:50 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.953	65	132866	500.00	ug/L		0.00
5) pentafluorobenzene	4.160	168	251026	50.00	ug/L		0.00
51) 1,4-difluorobenzene	4.721	114	323608	50.00	ug/L		0.00
73) chlorobenzene-d5	7.105	117	278566	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	9.293	152	137570	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	4.160	113	93336	49.85	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.70%				
52) 1,2-dichloroethane-d4 (s)	4.410	65	97503	52.70	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.40%				
74) toluene-d8 (s)	5.861	98	368666	52.16	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.32%				
98) 4-bromofluorobenzene (s)	8.184	95	126003	50.17	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.34%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.008	59	6510	20.90	ug/L		87
3) ethanol	2.392	45	12873	411.55	ug/L		92
4) 1,4-dioxane	5.142	88	3373	105.60	ug/L		77
6) chlorodifluoromethane	1.594	51	6605	3.54	ug/L		96
7) dichlorodifluoromethane	1.587	85	9882	4.02	ug/L		94
8) chloromethane	1.734	50	10958	4.09	ug/L		95
9) vinyl chloride	1.813	62	11118	3.78	ug/L		99
10) 1,3-butadiene	1.844	54	7586	3.87	ug/L		97
11) bromomethane	2.057	94	5625	3.37	ug/L		97
12) chloroethane	2.136	64	6496	3.60	ug/L		89
13) trichlorofluoromethane	2.319	101	11705	3.85	ug/L		97
14) ethyl ether	2.490	74	4180	3.76	ug/L		96
15) acrolein	2.581	56	1236	3.28	ug/L		92
16) freon 113	2.667	151	5554	3.77	ug/L	#	86
17) 1,1-dichloroethene	2.667	96	5690	3.69	ug/L		89
18) acetone	2.667	58	3948	14.69	ug/L	#	78
19) acetonitrile	2.843	41	11936	41.94	ug/L		96
20) iodomethane	2.776	142	5066	2.38	ug/L		92
21) carbon disulfide	2.837	76	16020	3.70	ug/L		95
22) methylene chloride	2.984	84	7607	4.20	ug/L		90
23) methyl acetate	2.874	43	6302	3.77	ug/L		91
24) methyl tert butyl ether	3.154	73	19689	3.68	ug/L		91
25) trans-1,2-dichloroethene	3.166	96	6641	3.76	ug/L		95
26) di-isopropyl ether	3.453	45	19881	3.73	ug/L		96
27) 2-butanone	3.800	72	4088	12.36	ug/L		92
28) 1,1-dichloroethane	3.453	63	11751	4.06	ug/L		97
29) chloroprene	3.508	53	8749	3.42	ug/L		93
30) acrylonitrile	3.118	53	3047	4.08	ug/L		93
31) hexane	3.349	56	3800	3.42	ug/L		91
32) vinyl acetate	3.429	86	1441	3.46	ug/L	#	74
33) ethyl tert-butyl ether	3.697	59	19952	3.52	ug/L		91
34) ethyl acetate	3.819	45	1142	3.23	ug/L	#	71
35) 2,2-dichloropropane	3.843	77	10161	3.78	ug/L		98
36) cis-1,2-dichloroethene	3.831	96	7651	4.04	ug/L		99
37) methyl acrylate	3.861	85	1058	2.87	ug/L		91
38) propionitrile	3.837	54	13267	40.25	ug/L		91
39) bromochloromethane	3.996	128	3830	3.73	ug/L		83
40) tetrahydrofuran	4.014	42	2565	4.16	ug/L		97
41) chloroform	4.050	85	7629	3.86	ug/L		97
42) t-butyl formate	4.075	59	4673	3.41	ug/L		95
44) methacrylonitrile	3.953	67	3197	3.63	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166150.D
Acq On : 29 Jun 2021 11:00 pm
Operator : brittank
Sample : ic7065-4
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 30 17:18:50 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,1,1-trichloroethane	4.197	97	10507	3.67	ug/L		75
46) cyclohexane	4.258	84	10340	3.92	ug/L		95
47) 1,1-dichloropropene	4.306	75	7994	3.29	ug/L		92
48) iso-butyl alcohol	4.300	43	4715	41.48	ug/L		90
49) carbon tetrachloride	4.313	117	9155	3.65	ug/L		97
50) tert amyl alcohol	4.392	55	2550	21.86	ug/L		85
53) n-butyl alcohol	4.776	56	15186	176.74	ug/L		96
54) 2,2,4-trimethylpentane	4.520	57	14079	4.09	ug/L		96
55) benzene	4.447	78	25265	3.79	ug/L		99
56) tert-amyl methyl ether	4.514	87	5164	3.68	ug/L		95
57) heptane	4.630	71	3625	3.96	ug/L		90
58) isopropyl acetate	4.416	87	1970	3.70	ug/L	#	94
59) 1,2-dichloroethane	4.465	62	9323	4.22	ug/L		94
60) trichloroethene	4.916	130	7024	3.29	ug/L		91
61) ethyl acrylate	4.934	55	9446	3.73	ug/L		97
62) 2-nitropropane	5.440	41	2363	4.06	ug/L		91
63) 2-chloroethyl vinyl ether	5.489	63	23182	18.38	ug/L		96
64) methyl methacrylate	5.111	100	2156	3.56	ug/L	#	82
65) 1,2-dichloropropane	5.105	63	6329	3.68	ug/L		97
66) dibromomethane	5.172	93	4239	3.86	ug/L		92
67) methylcyclohexane	5.111	83	9775	3.75	ug/L		93
68) bromodichloromethane	5.294	83	8612	3.78	ug/L		97
69) epichlorohydrin	5.532	57	4873	19.71	ug/L		89
70) cis-1,3-dichloropropene	5.629	75	10610	3.55	ug/L		93
71) 4-methyl-2-pentanone	5.727	58	13850	16.03	ug/L		97
72) 3-methyl-1-butanol	5.751	55	9639	74.91	ug/L		96
75) toluene	5.922	92	17451	4.09	ug/L		99
76) trans-1,3-dichloropropene	6.081	75	9427	3.56	ug/L		96
77) ethyl methacrylate	6.105	69	10130	3.92	ug/L		96
78) 1,1,2-trichloroethane	6.251	83	4746	3.58	ug/L		89
79) tetrachloroethene	6.355	164	6216	3.75	ug/L		92
80) 1,3-dichloropropane	6.391	76	10465	3.78	ug/L		96
81) 2-hexanone	6.416	58	14817	16.76	ug/L		98
82) butyl acetate	6.507	56	5489	3.96	ug/L		94
83) dibromochloromethane	6.587	129	7105	3.63	ug/L		99
84) 1,2-dibromoethane	6.702	107	6637	3.76	ug/L		89
85) n-butyl ether	7.190	57	27085	3.94	ug/L		99
86) chlorobenzene	7.129	112	19737	4.04	ug/L		95
87) 1,1,1,2-tetrachloroethane	7.202	131	6469	3.56	ug/L		97
88) ethylbenzene	7.208	91	32281	4.05	ug/L		97
89) m,p-xylene	7.324	106	25891	7.97	ug/L		97
90) o-xylene	7.678	106	12669	3.88	ug/L		96
91) styrene	7.696	104	21466	3.93	ug/L		92
92) bromoform	7.861	173	5416	3.41	ug/L		99
93) butyl acrylate	7.599	55	13747	3.64	ug/L		95
94) n-amyl acetate	7.806	70	6049	3.78	ug/L		93
95) isopropylbenzene	8.013	105	32226	3.97	ug/L		97
96) cis-1,4-dichloro-2-butene	8.056	88	2955	2.05	ug/L		92
99) bromobenzene	8.324	156	8691	3.79	ug/L		98
100) 1,1,2,2-tetrachloroethane	8.287	83	8271	3.82	ug/L		98
101) trans-1,4-dichloro-2-b...	8.324	53	2341	3.24	ug/L		97
102) 1,2,3-trichloropropane	8.348	110	3042	4.02	ug/L		93
103) n-propylbenzene	8.409	91	34270	3.89	ug/L		96
104) 2-chlorotoluene	8.501	126	7981	4.01	ug/L		99
105) 4-chlorotoluene	8.617	126	7879	3.83	ug/L	#	84
106) 1,3,5-trimethylbenzene	8.580	105	25124	3.99	ug/L		94
107) tert-butylbenzene	8.885	134	5436	3.52	ug/L	#	87
108) 1,2,4-trimethylbenzene	8.940	105	25985	3.97	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166150.D
Acq On : 29 Jun 2021 11:00 pm
Operator : brittank
Sample : ic7065-4
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 30 17:18:50 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

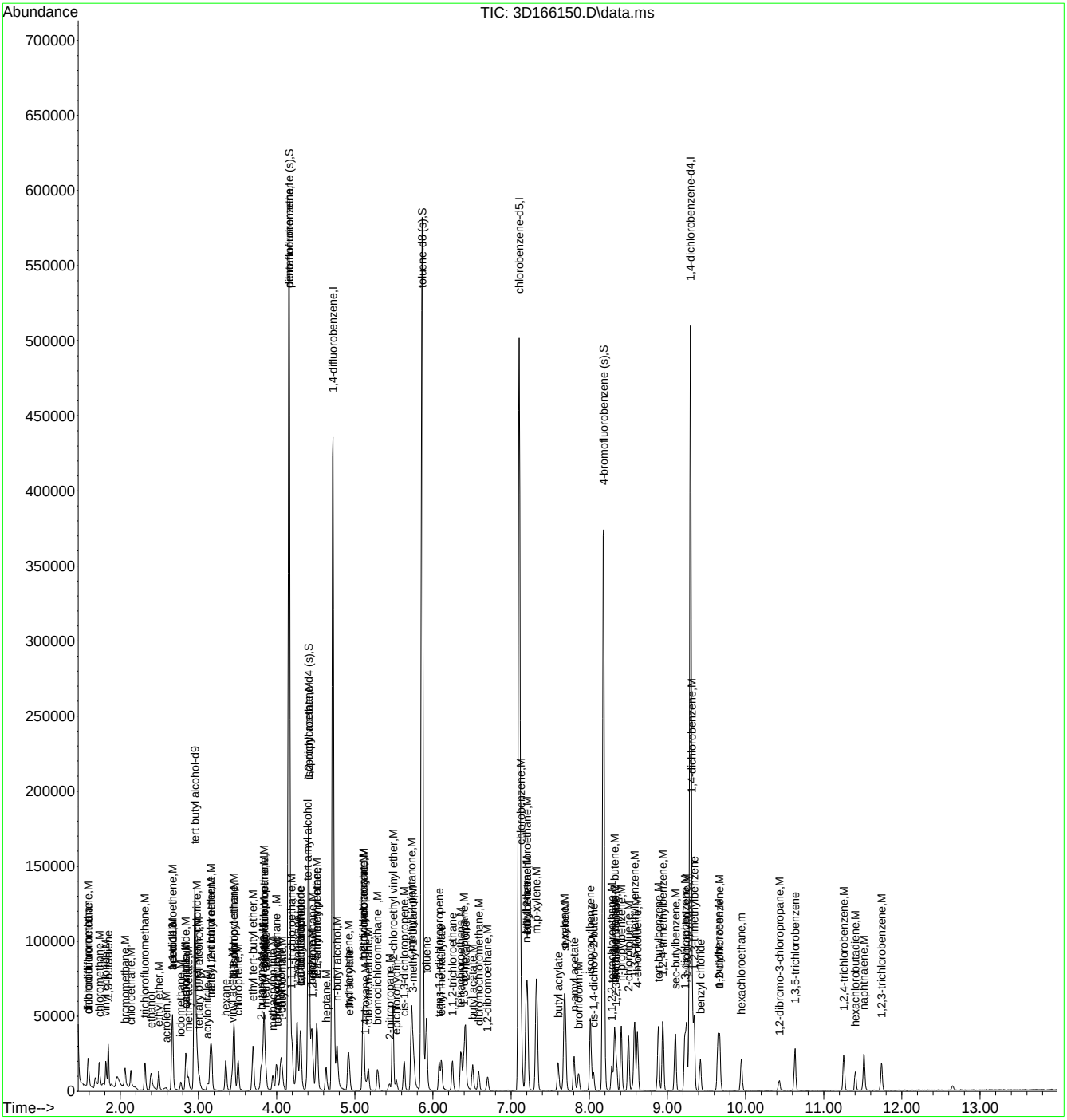
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	9.104	105	28068	3.79	ug/L	99
110) 1,3-dichlorobenzene	9.220	146	14894	3.75	ug/L	96
111) p-isopropyltoluene	9.245	119	25468	3.95	ug/L	98
112) 1,4-dichlorobenzene	9.318	146	15773	4.03	ug/L	95
113) 1,2,3-trimethylbenzene	9.342	105	27532	4.15	ug/L	97
114) benzyl chloride	9.421	91	15746	3.31	ug/L	97
115) 1,2-dichlorobenzene	9.671	146	14799	3.91	ug/L	97
116) n-butylbenzene	9.647	92	10580	3.66	ug/L	88
117) 1,2-dibromo-3-chloropr...	10.433	157	2272	3.30	ug/L	94
118) 1,3,5-trichlorobenzene	10.635	180	9803	3.54	ug/L	97
120) 1,2,4-trichlorobenzene	11.256	180	8447	3.43	ug/L	93
121) hexachlorobutadiene	11.403	225	2825	3.48	ug/L	96
122) naphthalene	11.512	128	20980	3.37	ug/L	96
123) 1,2,3-trichlorobenzene	11.744	180	6646	3.29	ug/L	94
124) hexachloroethane	9.952	201	3950	3.30	ug/L	87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166150.D
Acq On : 29 Jun 2021 11:00 pm
Operator : brittank
Sample : ic7065-4
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 30 17:18:50 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166151.D
Acq On : 29 Jun 2021 11:25 pm
Operator : brittank
Sample : ic7065-8
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 30 09:09:04 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.953	65	132738	500.00	ug/L		0.00
5) pentafluorobenzene	4.160	168	252407	50.00	ug/L		0.00
51) 1,4-difluorobenzene	4.721	114	329987	50.00	ug/L		0.00
73) chlorobenzene-d5	7.105	117	283944	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	9.293	152	139391	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	4.160	113	95101	50.51	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.02%				
52) 1,2-dichloroethane-d4 (s)	4.410	65	98179	52.04	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.08%				
74) toluene-d8 (s)	5.861	98	375861	52.17	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.34%				
98) 4-bromofluorobenzene (s)	8.184	95	128236	50.39	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.78%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.008	59	12680	40.76	ug/L		98
3) ethanol	2.392	45	25471	815.09	ug/L		98
4) 1,4-dioxane	5.148	88	6555	205.42	ug/L		93
6) chlorodifluoromethane	1.594	51	15167	8.08	ug/L		98
7) dichlorodifluoromethane	1.581	85	20733	8.38	ug/L		97
8) chloromethane	1.728	50	23323	8.66	ug/L		97
9) vinyl chloride	1.813	62	24407	8.25	ug/L		99
10) 1,3-butadiene	1.843	54	16093	8.17	ug/L		98
11) bromomethane	2.057	94	11689	6.97	ug/L		84
12) chloroethane	2.136	64	16161	8.90	ug/L		95
13) trichlorofluoromethane	2.313	101	25365	8.29	ug/L		100
14) ethyl ether	2.490	74	8074	7.23	ug/L		97
15) acrolein	2.581	56	2658	7.02	ug/L		87
16) freon 113	2.667	151	11861	8.01	ug/L		94
17) 1,1-dichloroethene	2.667	96	12539	8.09	ug/L		91
18) acetone	2.667	58	8573	31.73	ug/L		98
19) acetonitrile	2.843	41	23206	81.10	ug/L		97
20) iodomethane	2.776	142	12691	5.94	ug/L		99
21) carbon disulfide	2.837	76	35429	8.13	ug/L		97
22) methylene chloride	2.977	84	15798	8.68	ug/L		95
23) methyl acetate	2.868	43	12371	7.36	ug/L		94
24) methyl tert butyl ether	3.148	73	41896	7.79	ug/L		97
25) trans-1,2-dichloroethene	3.166	96	14434	8.13	ug/L		98
26) di-isopropyl ether	3.453	45	42209	7.88	ug/L		97
27) 2-butanone	3.800	72	9689	29.13	ug/L		99
28) 1,1-dichloroethane	3.453	63	24424	8.39	ug/L		98
29) chloroprene	3.508	53	19811	7.69	ug/L		98
30) acrylonitrile	3.112	53	5921	7.89	ug/L		96
31) hexane	3.349	56	8702	7.80	ug/L		97
32) vinyl acetate	3.429	86	3126	7.46	ug/L		99
33) ethyl tert-butyl ether	3.697	59	44528	7.81	ug/L		98
34) ethyl acetate	3.819	45	3020	8.50	ug/L	#	59
35) 2,2-dichloropropane	3.843	77	22740	8.41	ug/L		97
36) cis-1,2-dichloroethene	3.831	96	15684	8.24	ug/L		95
37) methyl acrylate	3.861	85	2508	6.78	ug/L	#	81
38) propionitrile	3.837	54	26987	81.42	ug/L		96
39) bromochloromethane	3.995	128	8117	7.87	ug/L		89
40) tetrahydrofuran	4.014	42	5565	8.99	ug/L		92
41) chloroform	4.050	85	16947	8.52	ug/L		87
42) t-butyl formate	4.069	59	9245	6.71	ug/L		89
44) methacrylonitrile	3.953	67	6620	7.48	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166151.D
Acq On : 29 Jun 2021 11:25 pm
Operator : brittank
Sample : ic7065-8
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 30 09:09:04 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,1,1-trichloroethane	4.197	97	22937	7.97	ug/L		93
46) cyclohexane	4.258	84	21858	8.25	ug/L		96
47) 1,1-dichloropropene	4.300	75	18864	7.71	ug/L		94
48) iso-butyl alcohol	4.294	43	8198	71.72	ug/L		86
49) carbon tetrachloride	4.313	117	19759	7.83	ug/L		97
50) tert amyl alcohol	4.392	55	4560	38.87	ug/L		98
53) n-butyl alcohol	4.770	56	31805	363.00	ug/L		97
54) 2,2,4-trimethylpentane	4.520	57	30554	8.70	ug/L		96
55) benzene	4.447	78	55324	8.15	ug/L		100
56) tert-amyl methyl ether	4.514	87	10549	7.36	ug/L	#	80
57) heptane	4.636	71	7977	8.55	ug/L		94
58) isopropyl acetate	4.416	87	3949	7.28	ug/L		95
59) 1,2-dichloroethane	4.459	62	18935	8.40	ug/L		97
60) trichloroethene	4.916	130	16326	7.51	ug/L		98
61) ethyl acrylate	4.928	55	19617	7.59	ug/L		98
62) 2-nitropropane	5.440	41	4500	7.58	ug/L		92
63) 2-chloroethyl vinyl ether	5.483	63	47794	37.17	ug/L		100
64) methyl methacrylate	5.111	100	4887	7.92	ug/L	#	91
65) 1,2-dichloropropane	5.105	63	13653	7.78	ug/L		95
66) dibromomethane	5.172	93	9086	8.11	ug/L		97
67) methylcyclohexane	5.111	83	21117	7.94	ug/L		90
68) bromodichloromethane	5.294	83	18096	7.78	ug/L		99
69) epichlorohydrin	5.532	57	9709	38.51	ug/L		90
70) cis-1,3-dichloropropene	5.629	75	21782	7.15	ug/L		96
71) 4-methyl-2-pentanone	5.727	58	28517	32.37	ug/L		99
72) 3-methyl-1-butanol	5.751	55	20161	153.65	ug/L		96
75) toluene	5.916	92	36129	8.30	ug/L		98
76) trans-1,3-dichloropropene	6.080	75	20490	7.59	ug/L		98
77) ethyl methacrylate	6.111	69	21424	8.14	ug/L		99
78) 1,1,2-trichloroethane	6.251	83	10138	7.50	ug/L		97
79) tetrachloroethene	6.361	164	13501	7.98	ug/L		96
80) 1,3-dichloropropane	6.391	76	22287	7.90	ug/L		96
81) 2-hexanone	6.416	58	29287	32.51	ug/L		99
82) butyl acetate	6.507	56	11125	7.87	ug/L		93
83) dibromochloromethane	6.586	129	15048	7.55	ug/L		96
84) 1,2-dibromoethane	6.696	107	13681	7.61	ug/L		91
85) n-butyl ether	7.190	57	57112	8.15	ug/L		95
86) chlorobenzene	7.129	112	41147	8.26	ug/L		95
87) 1,1,1,2-tetrachloroethane	7.196	131	14706	7.94	ug/L		93
88) ethylbenzene	7.208	91	68972	8.49	ug/L		97
89) m,p-xylene	7.324	106	55651	16.80	ug/L		99
90) o-xylene	7.678	106	27055	8.13	ug/L		98
91) styrene	7.690	104	45626	8.20	ug/L		97
92) bromoform	7.867	173	11836	7.30	ug/L		95
93) butyl acrylate	7.598	55	29338	7.63	ug/L		97
94) n-amyl acetate	7.806	70	11786	7.23	ug/L	#	88
95) isopropylbenzene	8.013	105	68156	8.24	ug/L		99
96) cis-1,4-dichloro-2-butene	8.056	88	6270	4.26	ug/L		89
99) bromobenzene	8.324	156	18488	7.95	ug/L		98
100) 1,1,2,2-tetrachloroethane	8.287	83	17087	7.80	ug/L		94
101) trans-1,4-dichloro-2-b...	8.324	53	5091	6.96	ug/L		96
102) 1,2,3-trichloropropane	8.348	110	6145	8.01	ug/L		94
103) n-propylbenzene	8.409	91	74204	8.31	ug/L		98
104) 2-chlorotoluene	8.501	126	16144	8.01	ug/L		95
105) 4-chlorotoluene	8.617	126	17276	8.29	ug/L		97
106) 1,3,5-trimethylbenzene	8.580	105	52875	8.29	ug/L		95
107) tert-butylbenzene	8.885	134	11791	7.54	ug/L		95
108) 1,2,4-trimethylbenzene	8.940	105	55130	8.31	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166151.D
Acq On : 29 Jun 2021 11:25 pm
Operator : brittank
Sample : ic7065-8
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 30 09:09:04 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	9.098	105	61620	8.21	ug/L	99
110) 1,3-dichlorobenzene	9.220	146	31859	7.92	ug/L	97
111) p-isopropyltoluene	9.244	119	54686	8.36	ug/L	99
112) 1,4-dichlorobenzene	9.318	146	33200	8.37	ug/L	95
113) 1,2,3-trimethylbenzene	9.342	105	56192	8.36	ug/L	100
114) benzyl chloride	9.421	91	35023	7.27	ug/L	99
115) 1,2-dichlorobenzene	9.671	146	30992	8.09	ug/L	99
116) n-butylbenzene	9.647	92	22647	7.74	ug/L	96
117) 1,2-dibromo-3-chloropr...	10.427	157	4828	6.93	ug/L	88
118) 1,3,5-trichlorobenzene	10.628	180	21414	7.62	ug/L	98
120) 1,2,4-trichlorobenzene	11.256	180	17382	6.97	ug/L	95
121) hexachlorobutadiene	11.403	225	6221	7.57	ug/L	99
122) naphthalene	11.512	128	45857	7.26	ug/L	98
123) 1,2,3-trichlorobenzene	11.738	180	15075	7.36	ug/L	99
124) hexachloroethane	9.952	201	8757	7.22	ug/L	95
125) 2-methylnaphthalene	12.646	142	5346	2.63	ug/L	96

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

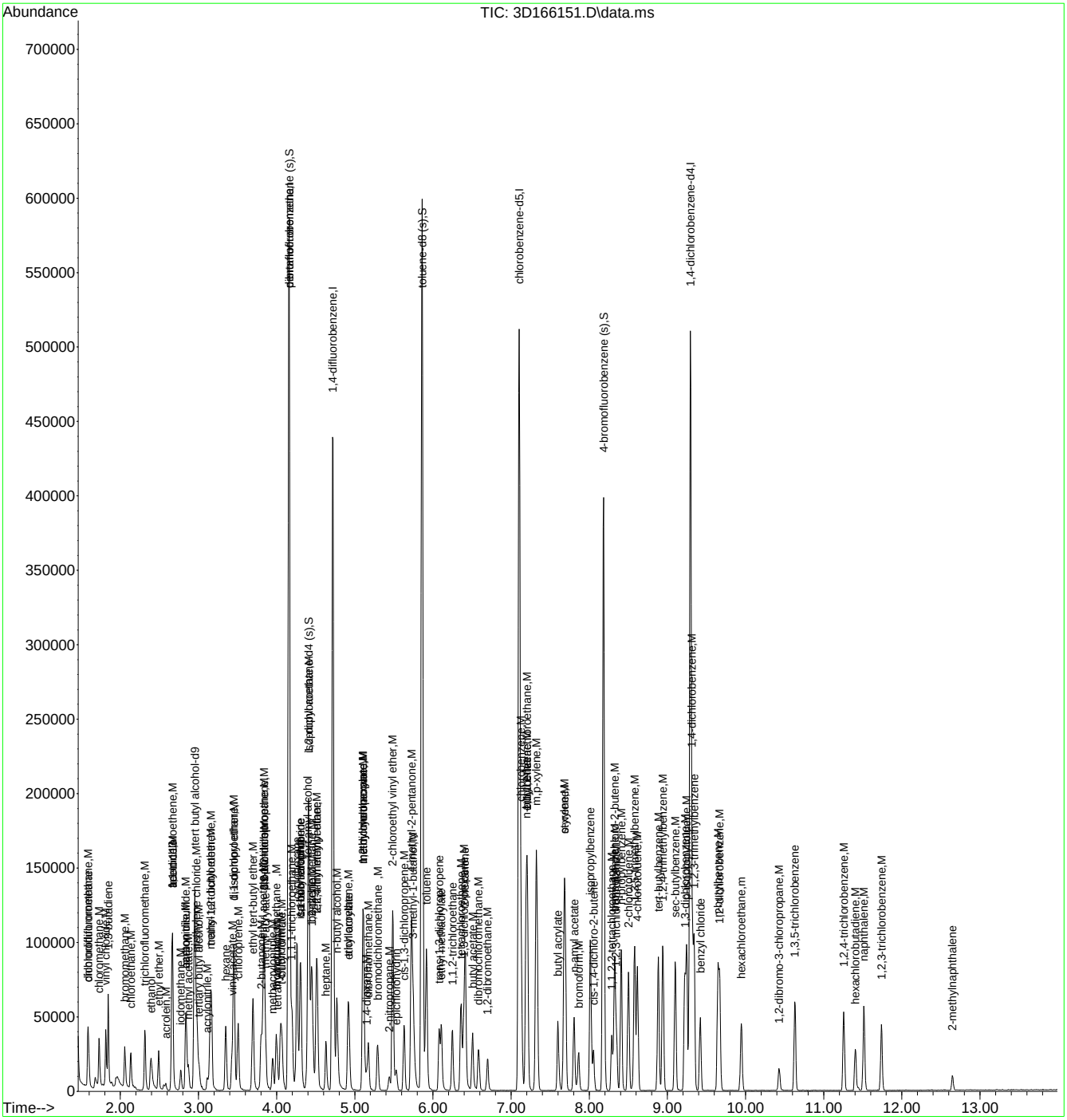
7.6.6

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166151.D
Acq On : 29 Jun 2021 11:25 pm
Operator : brittank
Sample : ic7065-8
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 30 09:09:04 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166152.D
Acq On : 29 Jun 2021 11:50 pm
Operator : brittank
Sample : ic7065-20
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 30 09:09:10 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.953	65	137981	500.00	ug/L		0.00
5) pentafluorobenzene	4.160	168	246211	50.00	ug/L		0.00
51) 1,4-difluorobenzene	4.721	114	325460	50.00	ug/L		0.00
73) chlorobenzene-d5	7.105	117	283270	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	9.293	152	140112	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	4.160	113	91888	50.04	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.08%				
52) 1,2-dichloroethane-d4 (s)	4.410	65	96753	51.99	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.98%				
74) toluene-d8 (s)	5.861	98	366194	50.95	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.90%				
98) 4-bromofluorobenzene (s)	8.178	95	126968	49.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.008	59	31799	98.32	ug/L		95
3) ethanol	2.392	45	63634	1958.96	ug/L		98
4) 1,4-dioxane	5.142	88	15947	480.75	ug/L		90
6) chlorodifluoromethane	1.600	51	36175	19.74	ug/L		93
7) dichlorodifluoromethane	1.588	85	44561	18.47	ug/L		99
8) chloromethane	1.728	50	52407	19.94	ug/L		96
9) vinyl chloride	1.813	62	55441	19.22	ug/L		99
10) 1,3-butadiene	1.844	54	37413	19.48	ug/L		97
11) bromomethane	2.057	94	29425	17.98	ug/L		97
12) chloroethane	2.136	64	34603	19.55	ug/L		97
13) trichlorofluoromethane	2.313	101	56680	18.98	ug/L		99
14) ethyl ether	2.490	74	20697	18.99	ug/L		95
15) acrolein	2.581	56	6648	18.00	ug/L		98
16) freon 113	2.667	151	27522	19.05	ug/L		90
17) 1,1-dichloroethene	2.667	96	29570	19.57	ug/L		99
18) acetone	2.667	58	20558	78.00	ug/L		96
19) acetonitrile	2.843	41	55940	200.41	ug/L		97
20) iodomethane	2.776	142	37072	17.78	ug/L		97
21) carbon disulfide	2.837	76	82879	19.49	ug/L		99
22) methylene chloride	2.978	84	36489	20.56	ug/L		96
23) methyl acetate	2.874	43	31410	19.17	ug/L		97
24) methyl tert butyl ether	3.148	73	103349	19.69	ug/L		98
25) trans-1,2-dichloroethene	3.166	96	34275	19.80	ug/L		95
26) di-isopropyl ether	3.453	45	102422	19.61	ug/L		98
27) 2-butanone	3.801	72	24448	75.34	ug/L		96
28) 1,1-dichloroethane	3.453	63	58159	20.47	ug/L		98
29) chloroprene	3.508	53	49021	19.51	ug/L		98
30) acrylonitrile	3.112	53	13832	18.89	ug/L		99
31) hexane	3.349	56	20436	18.77	ug/L		95
32) vinyl acetate	3.429	86	7950	19.44	ug/L		96
33) ethyl tert-butyl ether	3.697	59	108282	19.46	ug/L		99
34) ethyl acetate	3.819	45	6806	19.63	ug/L	#	84
35) 2,2-dichloropropane	3.843	77	53849	20.42	ug/L		98
36) cis-1,2-dichloroethene	3.831	96	37284	20.08	ug/L		98
37) methyl acrylate	3.861	85	6454	17.88	ug/L	#	85
38) propionitrile	3.837	54	64925	200.80	ug/L		99
39) bromochloromethane	3.996	128	19386	19.26	ug/L		98
40) tetrahydrofuran	4.014	42	12865	21.30	ug/L		98
41) chloroform	4.050	85	39335	20.27	ug/L		96
42) t-butyl formate	4.069	59	26266	19.55	ug/L		99
44) methacrylonitrile	3.947	67	17389	20.14	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166152.D
Acq On : 29 Jun 2021 11:50 pm
Operator : brittank
Sample : ic7065-20
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 30 09:09:10 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,1,1-trichloroethane	4.197	97	54891	19.56	ug/L		96
46) cyclohexane	4.264	84	50375	19.48	ug/L		98
47) 1,1-dichloropropene	4.300	75	46339	19.42	ug/L		98
48) iso-butyl alcohol	4.294	43	23155	207.67	ug/L		98
49) carbon tetrachloride	4.313	117	47852	19.44	ug/L		98
50) tert amyl alcohol	4.392	55	10806	94.43	ug/L		92
53) n-butyl alcohol	4.770	56	81245	940.16	ug/L		95
54) 2,2,4-trimethylpentane	4.520	57	70336	20.30	ug/L		98
55) benzene	4.447	78	130322	19.46	ug/L		100
56) tert-amyl methyl ether	4.514	87	26237	18.57	ug/L		91
57) heptane	4.630	71	18030	19.59	ug/L		99
58) isopropyl acetate	4.416	87	10208	19.09	ug/L		99
59) 1,2-dichloroethane	4.465	62	44664	20.09	ug/L		96
60) trichloroethene	4.916	130	39697	18.51	ug/L		98
61) ethyl acrylate	4.928	55	49357	19.36	ug/L		98
62) 2-nitropropane	5.440	41	11267	19.25	ug/L		97
63) 2-chloroethyl vinyl ether	5.483	63	120688	95.17	ug/L		100
64) methyl methacrylate	5.111	100	12099	19.88	ug/L	#	75
65) 1,2-dichloropropane	5.105	63	32582	18.81	ug/L		98
66) dibromomethane	5.172	93	21735	19.66	ug/L		98
67) methylcyclohexane	5.111	83	51400	19.60	ug/L		97
68) bromodichloromethane	5.294	83	44486	19.39	ug/L		96
69) epichlorohydrin	5.532	57	24163	97.17	ug/L		95
70) cis-1,3-dichloropropene	5.629	75	56962	18.96	ug/L		94
71) 4-methyl-2-pentanone	5.721	58	69707	80.23	ug/L		94
72) 3-methyl-1-butanol	5.745	55	49887	385.48	ug/L		95
75) toluene	5.916	92	87279	20.10	ug/L		98
76) trans-1,3-dichloropropene	6.081	75	50893	18.90	ug/L		97
77) ethyl methacrylate	6.105	69	51079	19.46	ug/L		95
78) 1,1,2-trichloroethane	6.251	83	25749	19.09	ug/L		99
79) tetrachloroethene	6.361	164	33430	19.81	ug/L		98
80) 1,3-dichloropropane	6.391	76	55372	19.67	ug/L		97
81) 2-hexanone	6.410	58	72510	80.68	ug/L		100
82) butyl acetate	6.507	56	28182	19.99	ug/L		98
83) dibromochloromethane	6.587	129	37472	18.84	ug/L		97
84) 1,2-dibromoethane	6.696	107	35000	19.51	ug/L		98
85) n-butyl ether	7.190	57	138185	19.76	ug/L		99
86) chlorobenzene	7.129	112	98753	19.86	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.202	131	34385	18.61	ug/L		98
88) ethylbenzene	7.208	91	162108	20.00	ug/L		99
89) m,p-xylene	7.324	106	131141	39.67	ug/L		98
90) o-xylene	7.678	106	66046	19.88	ug/L		99
91) styrene	7.690	104	110529	19.91	ug/L		98
92) bromoform	7.867	173	30221	18.69	ug/L		96
93) butyl acrylate	7.599	55	73512	19.16	ug/L		99
94) n-amyl acetate	7.806	70	31154	19.15	ug/L		99
95) isopropylbenzene	8.013	105	163270	19.77	ug/L		99
96) cis-1,4-dichloro-2-butene	8.056	88	17139	11.67	ug/L		96
99) bromobenzene	8.324	156	45838	19.61	ug/L		99
100) 1,1,2,2-tetrachloroethane	8.287	83	41975	19.06	ug/L		96
101) trans-1,4-dichloro-2-b...	8.324	53	13387	18.20	ug/L		98
102) 1,2,3-trichloropropane	8.348	110	14477	18.78	ug/L		99
103) n-propylbenzene	8.409	91	175301	19.52	ug/L		98
104) 2-chlorotoluene	8.501	126	39442	19.47	ug/L		98
105) 4-chlorotoluene	8.617	126	40830	19.49	ug/L		95
106) 1,3,5-trimethylbenzene	8.580	105	126429	19.72	ug/L		98
107) tert-butylbenzene	8.885	134	30182	19.20	ug/L		94
108) 1,2,4-trimethylbenzene	8.940	105	130566	19.57	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166152.D
Acq On : 29 Jun 2021 11:50 pm
Operator : brittank
Sample : ic7065-20
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 30 09:09:10 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

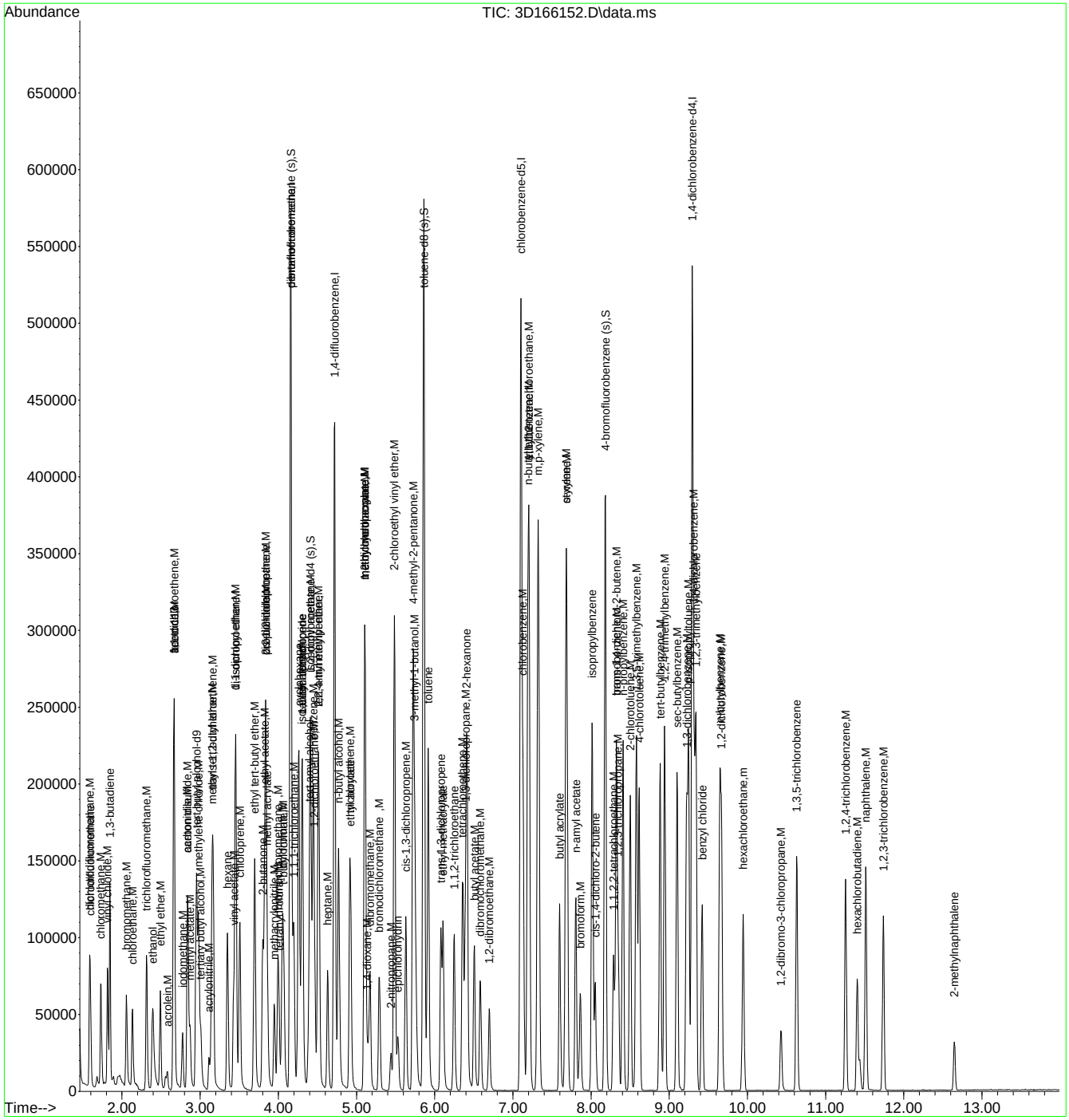
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	9.098	105	148416	19.67	ug/L	97
110) 1,3-dichlorobenzene	9.220	146	79053	19.55	ug/L	96
111) p-isopropyltoluene	9.245	119	130397	19.84	ug/L	100
112) 1,4-dichlorobenzene	9.318	146	77628	19.46	ug/L	98
113) 1,2,3-trimethylbenzene	9.342	105	133088	19.69	ug/L	98
114) benzyl chloride	9.421	91	88946	18.37	ug/L	100
115) 1,2-dichlorobenzene	9.671	146	73515	19.09	ug/L	97
116) n-butylbenzene	9.647	92	56560	19.23	ug/L	97
117) 1,2-dibromo-3-chloropr...	10.433	157	13101	18.70	ug/L	98
118) 1,3,5-trichlorobenzene	10.635	180	53415	18.91	ug/L	97
120) 1,2,4-trichlorobenzene	11.256	180	45630	18.20	ug/L	90
121) hexachlorobutadiene	11.403	225	15112	18.30	ug/L	95
122) naphthalene	11.512	128	119669	18.86	ug/L	99
123) 1,2,3-trichlorobenzene	11.738	180	38654	18.77	ug/L	95
124) hexachloroethane	9.946	201	22234	18.24	ug/L	98
125) 2-methylnaphthalene	12.646	142	17269	8.44	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166152.D
Acq On : 29 Jun 2021 11:50 pm
Operator : brittank
Sample : ic7065-20
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 30 09:09:10 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166153.D
Acq On : 30 Jun 2021 12:15 am
Operator : brittank
Sample : icc7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 30 09:09:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.953	65	138159	500.00	ug/L	0.00
5) pentafluorobenzene	4.154	168	245578	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	325804	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	286343	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	139983	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	91587	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
52) 1,2-dichloroethane-d4 (s)	4.404	65	93140	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
74) toluene-d8 (s)	5.861	98	363272	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
98) 4-bromofluorobenzene (s)	8.184	95	127783	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.008	59	80957	250.00	ug/L	100
3) ethanol	2.392	45	162627	5000.00	ug/L	100
4) 1,4-dioxane	5.148	88	41517	1250.00	ug/L	100
6) chlorodifluoromethane	1.594	51	91371	50.00	ug/L	100
7) dichlorodifluoromethane	1.588	85	120327	50.00	ug/L	100
8) chloromethane	1.728	50	131077	50.00	ug/L	100
9) vinyl chloride	1.813	62	143833	50.00	ug/L	100
10) 1,3-butadiene	1.844	54	95790	50.00	ug/L	100
11) bromomethane	2.051	94	81620	50.00	ug/L	100
12) chloroethane	2.130	64	88291	50.00	ug/L	100
13) trichlorofluoromethane	2.313	101	148905	50.00	ug/L	100
14) ethyl ether	2.490	74	54344	50.00	ug/L	100
15) acrolein	2.581	56	18417	50.00	ug/L	100
16) freon 113	2.661	151	72069	50.00	ug/L	100
17) 1,1-dichloroethene	2.667	96	75356	50.00	ug/L	100
18) acetone	2.667	58	52576	200.00	ug/L	100
19) acetonitrile	2.844	41	139205	500.00	ug/L	100
20) iodomethane	2.770	142	103984	50.00	ug/L	100
21) carbon disulfide	2.837	76	212021	50.00	ug/L	100
22) methylene chloride	2.978	84	88505	50.00	ug/L	100
23) methyl acetate	2.868	43	81714	50.00	ug/L	100
24) methyl tert butyl ether	3.148	73	261775	50.00	ug/L	100
25) trans-1,2-dichloroethene	3.167	96	86330	50.00	ug/L	100
26) di-isopropyl ether	3.453	45	263070	50.49	ug/L	100
27) 2-butanone	3.801	72	64731	200.00	ug/L	100
28) 1,1-dichloroethane	3.453	63	144074	50.85	ug/L	100
29) chloroprene	3.508	53	125296	50.00	ug/L	100
30) acrylonitrile	3.112	53	36521	50.00	ug/L	100
31) hexane	3.350	56	54292	50.00	ug/L	100
32) vinyl acetate	3.429	86	20397	50.00	ug/L	100
33) ethyl tert-butyl ether	3.697	59	277519	50.00	ug/L	100
34) ethyl acetate	3.819	45	17290	50.00	ug/L	100
35) 2,2-dichloropropane	3.843	77	131488	50.00	ug/L	100
36) cis-1,2-dichloroethene	3.831	96	92619	50.00	ug/L	100
37) methyl acrylate	3.862	85	18005	50.00	ug/L	100
38) propionitrile	3.837	54	161249	500.00	ug/L	100
39) bromochloromethane	3.996	128	50205	50.00	ug/L	100
40) tetrahydrofuran	4.008	42	30126	50.00	ug/L	100
41) chloroform	4.051	85	96787	50.00	ug/L	100
42) t-butyl formate	4.069	59	67020	50.00	ug/L	100
44) methacrylonitrile	3.947	67	43065	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166153.D
Acq On : 30 Jun 2021 12:15 am
Operator : brittank
Sample : icc7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 30 09:09:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) 1,1,1-trichloroethane	4.197	97	139927	50.00	ug/L	100
46) cyclohexane	4.258	84	128964	50.00	ug/L	100
47) 1,1-dichloropropene	4.301	75	118981	50.00	ug/L	100
48) iso-butyl alcohol	4.294	43	55897	502.63	ug/L	100
49) carbon tetrachloride	4.313	117	122735	50.00	ug/L	100
50) tert amyl alcohol	4.386	55	28536	250.00	ug/L	100
53) n-butyl alcohol	4.770	56	215203	2487.69	ug/L	100
54) 2,2,4-trimethylpentane	4.520	57	173466	50.00	ug/L	100
55) benzene	4.447	78	335225	50.00	ug/L	100
56) tert-amyl methyl ether	4.514	87	70715	50.00	ug/L	100
57) heptane	4.630	71	46078	50.00	ug/L	100
58) isopropyl acetate	4.416	87	26770	50.00	ug/L	100
59) 1,2-dichloroethane	4.459	62	111299	50.00	ug/L	100
60) trichloroethene	4.916	130	107373	50.00	ug/L	100
61) ethyl acrylate	4.928	55	127574	50.00	ug/L	100
62) 2-nitropropane	5.441	41	29300	50.00	ug/L	100
63) 2-chloroethyl vinyl ether	5.483	63	317375	250.00	ug/L	100
64) methyl methacrylate	5.105	100	30467	50.00	ug/L	100
65) 1,2-dichloropropane	5.099	63	86679	50.00	ug/L	100
66) dibromomethane	5.172	93	55338	50.00	ug/L	100
67) methylcyclohexane	5.111	83	131257	50.00	ug/L	100
68) bromodichloromethane	5.288	83	114837	50.00	ug/L	100
69) epichlorohydrin	5.532	57	62231	250.00	ug/L	100
70) cis-1,3-dichloropropene	5.630	75	150339	50.00	ug/L	100
71) 4-methyl-2-pentanone	5.727	58	173947	200.00	ug/L	100
72) 3-methyl-1-butanol	5.745	55	129553	1000.00	ug/L	100
75) toluene	5.916	92	219479	50.00	ug/L	100
76) trans-1,3-dichloropropene	6.081	75	136113	50.00	ug/L	100
77) ethyl methacrylate	6.105	69	132661	50.00	ug/L	100
78) 1,1,2-trichloroethane	6.251	83	68188	50.00	ug/L	100
79) tetrachloroethene	6.355	164	85298	50.00	ug/L	100
80) 1,3-dichloropropane	6.392	76	142294	50.00	ug/L	100
81) 2-hexanone	6.410	58	181707	200.00	ug/L	100
82) butyl acetate	6.507	56	71263	50.00	ug/L	100
83) dibromochloromethane	6.587	129	100501	50.00	ug/L	100
84) 1,2-dibromoethane	6.696	107	90678	50.00	ug/L	100
85) n-butyl ether	7.190	57	353415	50.00	ug/L	100
86) chlorobenzene	7.129	112	251290	50.00	ug/L	100
87) 1,1,1,2-tetrachloroethane	7.202	131	93406	50.00	ug/L	100
88) ethylbenzene	7.209	91	409652	50.00	ug/L	100
89) m,p-xylene	7.324	106	334132	100.00	ug/L	100
90) o-xylene	7.678	106	167886	50.00	ug/L	100
91) styrene	7.690	104	280577	50.00	ug/L	100
92) bromoform	7.861	173	81718	50.00	ug/L	100
93) butyl acrylate	7.599	55	193876	50.00	ug/L	100
94) n-amyl acetate	7.806	70	82241	50.00	ug/L	100
95) isopropylbenzene	8.013	105	417302	50.00	ug/L	100
96) cis-1,4-dichloro-2-butene	8.056	88	74227	50.00	ug/L	100
99) bromobenzene	8.324	156	116758	50.00	ug/L	100
100) 1,1,2,2-tetrachloroethane	8.288	83	110030	50.00	ug/L	100
101) trans-1,4-dichloro-2-b...	8.324	53	36747	50.00	ug/L	100
102) 1,2,3-trichloropropane	8.349	110	38507	50.00	ug/L	100
103) n-propylbenzene	8.410	91	448561	50.00	ug/L	100
104) 2-chlorotoluene	8.501	126	101211	50.00	ug/L	100
105) 4-chlorotoluene	8.617	126	104656	50.00	ug/L	100
106) 1,3,5-trimethylbenzene	8.580	105	320316	50.00	ug/L	100
107) tert-butylbenzene	8.885	134	78530	50.00	ug/L	100
108) 1,2,4-trimethylbenzene	8.940	105	333278	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166153.D
Acq On : 30 Jun 2021 12:15 am
Operator : brittank
Sample : icc7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 30 09:09:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	9.098	105	377002	50.00	ug/L	100
110) 1,3-dichlorobenzene	9.220	146	201992	50.00	ug/L	100
111) p-isopropyltoluene	9.245	119	328358	50.00	ug/L	100
112) 1,4-dichlorobenzene	9.318	146	199279	50.00	ug/L	100
113) 1,2,3-trimethylbenzene	9.342	105	337582	50.00	ug/L	100
114) benzyl chloride	9.422	91	241811	50.00	ug/L	100
115) 1,2-dichlorobenzene	9.671	146	192360	50.00	ug/L	100
116) n-butylbenzene	9.647	92	146955	50.00	ug/L	100
117) 1,2-dibromo-3-chloropr...	10.434	157	34991	50.00	ug/L	100
118) 1,3,5-trichlorobenzene	10.629	180	141068	50.00	ug/L	100
120) 1,2,4-trichlorobenzene	11.257	180	125268	50.00	ug/L	100
121) hexachlorobutadiene	11.409	225	41245	50.00	ug/L	100
122) naphthalene	11.513	128	317041	50.00	ug/L	100
123) 1,2,3-trichlorobenzene	11.738	180	102877	50.00	ug/L	100
124) hexachloroethane	9.946	201	60895	50.00	ug/L	100
125) 2-methylnaphthalene	12.647	142	51108	25.00	ug/L	100

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

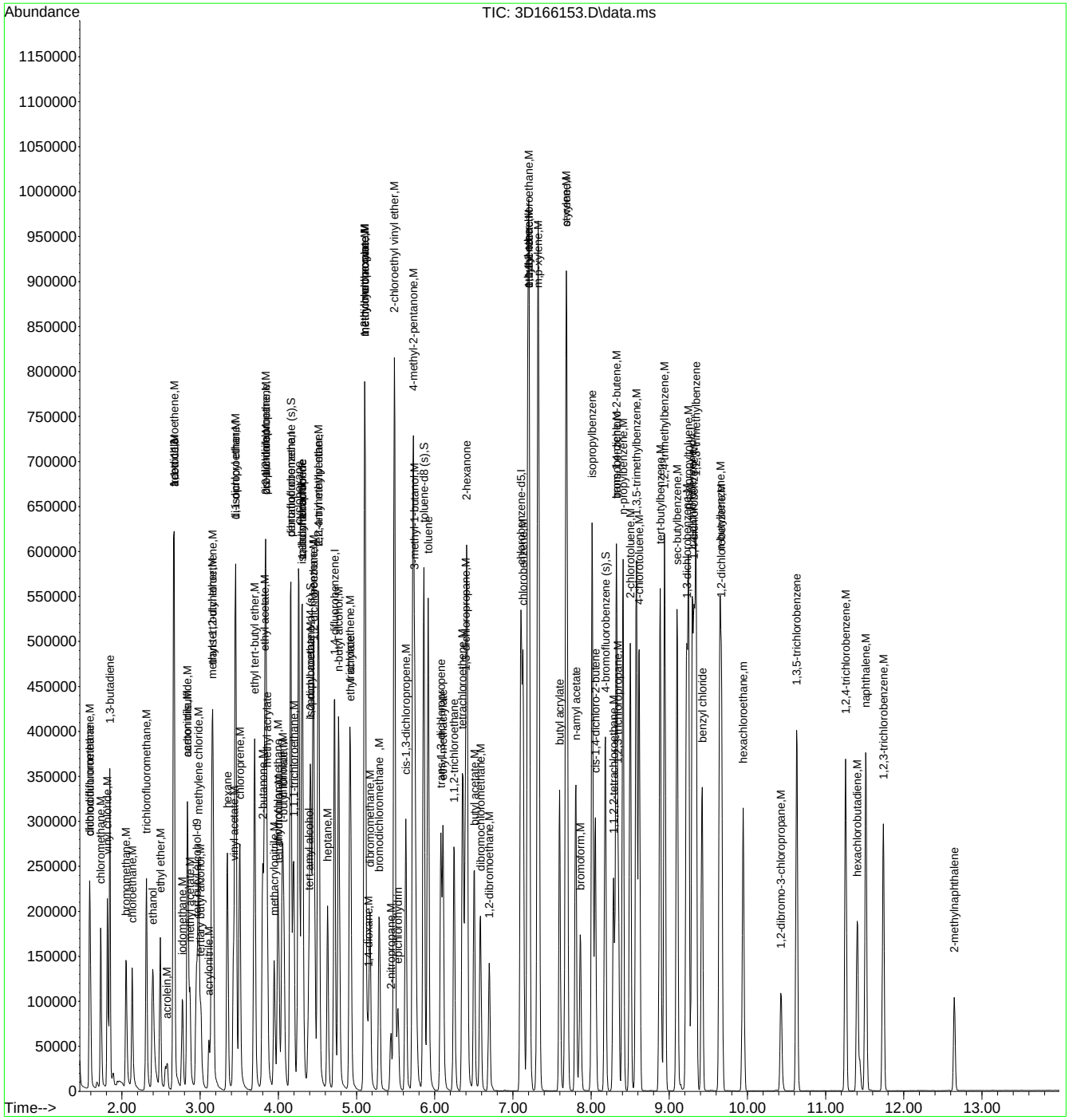
7.6.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166153.D
Acq On : 30 Jun 2021 12:15 am
Operator : brittank
Sample : icc7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 30 09:09:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166154.D
Acq On : 30 Jun 2021 12:40 am
Operator : brittank
Sample : ic7065-100
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 30 09:09:23 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.959	65	128921	500.00	ug/L	0.00
5) pentafluorobenzene	4.154	168	233707	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	317161	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	285053	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	138339	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	88681	50.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.74%			
52) 1,2-dichloroethane-d4 (s)	4.404	65	90316	49.81	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.62%			
74) toluene-d8 (s)	5.861	98	355582	49.16	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.32%			
98) 4-bromofluorobenzene (s)	8.178	95	127824	50.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.22%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.008	59	154702	511.96	ug/L	96
3) ethanol	2.398	45	312183	10285.90	ug/L	98
4) 1,4-dioxane	5.148	88	79829	2575.73	ug/L	96
6) chlorodifluoromethane	1.594	51	181644	104.45	ug/L	98
7) dichlorodifluoromethane	1.581	85	239303	104.49	ug/L	100
8) chloromethane	1.728	50	253257	101.51	ug/L	99
9) vinyl chloride	1.813	62	285762	104.38	ug/L	100
10) 1,3-butadiene	1.843	54	178448	97.88	ug/L	99
11) bromomethane	2.045	94	171374	110.32	ug/L	95
12) chloroethane	2.124	64	174519	103.85	ug/L	97
13) trichlorofluoromethane	2.307	101	290658	102.56	ug/L	99
14) ethyl ether	2.490	74	106270	102.74	ug/L	98
15) acrolein	2.581	56	35451	101.13	ug/L	95
16) freon 113	2.660	151	135922	99.09	ug/L	94
17) 1,1-dichloroethene	2.660	96	145690	101.58	ug/L	93
18) acetone	2.666	58	101830	407.04	ug/L	99
19) acetonitrile	2.843	41	268402	1013.02	ug/L	98
20) iodomethane	2.770	142	211318	106.77	ug/L	99
21) carbon disulfide	2.831	76	417288	103.41	ug/L	98
22) methylene chloride	2.977	84	172640	102.49	ug/L	99
23) methyl acetate	2.868	43	152110	97.80	ug/L	100
24) methyl tert butyl ether	3.148	73	507802	101.92	ug/L	99
25) trans-1,2-dichloroethene	3.166	96	165576	100.77	ug/L	98
26) di-isopropyl ether	3.453	45	508654	102.57	ug/L	99
27) 2-butanone	3.800	72	126161	409.60	ug/L	97
28) 1,1-dichloroethane	3.453	63	278585	103.31	ug/L	99
29) chloroprene	3.508	53	244452	102.50	ug/L	99
30) acrylonitrile	3.112	53	72428	104.20	ug/L	97
31) hexane	3.349	56	99664	96.45	ug/L	98
32) vinyl acetate	3.422	86	42691	109.97	ug/L	96
33) ethyl tert-butyl ether	3.697	59	546167	103.40	ug/L	98
34) ethyl acetate	3.819	45	35220	107.02	ug/L	96
35) 2,2-dichloropropane	3.843	77	259223	103.58	ug/L	98
36) cis-1,2-dichloroethene	3.831	96	182815	103.70	ug/L	99
37) methyl acrylate	3.855	85	34446	100.52	ug/L #	75
38) propionitrile	3.837	54	316638	1031.70	ug/L	98
39) bromochloromethane	3.995	128	98893	103.49	ug/L	98
40) tetrahydrofuran	4.008	42	59341	103.49	ug/L	96
41) chloroform	4.050	85	191133	103.75	ug/L	99
42) t-butyl formate	4.069	59	142124	111.42	ug/L	96
44) methacrylonitrile	3.947	67	86227	105.20	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166154.D
Acq On : 30 Jun 2021 12:40 am
Operator : brittank
Sample : ic7065-100
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 30 09:09:23 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,1,1-trichloroethane	4.197	97	275921	103.60	ug/L		97
46) cyclohexane	4.258	84	246193	100.30	ug/L		98
47) 1,1-dichloropropene	4.300	75	233329	103.03	ug/L		98
48) iso-butyl alcohol	4.300	43	106756	1008.71	ug/L		95
49) carbon tetrachloride	4.313	117	239877	102.69	ug/L		99
50) tert amyl alcohol	4.392	55	53668	494.06	ug/L		91
53) n-butyl alcohol	4.776	56	430618	5113.48	ug/L		99
54) 2,2,4-trimethylpentane	4.520	57	331489	98.15	ug/L		95
55) benzene	4.447	78	647821	99.26	ug/L		98
56) tert-amyl methyl ether	4.508	87	140402	101.98	ug/L		97
57) heptane	4.630	71	88053	98.15	ug/L		99
58) isopropyl acetate	4.416	87	54009	103.62	ug/L	#	88
59) 1,2-dichloroethane	4.459	62	224013	103.38	ug/L		99
60) trichloroethene	4.916	130	208489	99.73	ug/L		99
61) ethyl acrylate	4.928	55	253123	101.91	ug/L		99
62) 2-nitropropane	5.440	41	61241	107.35	ug/L		98
63) 2-chloroethyl vinyl ether	5.483	63	643436	520.65	ug/L		99
64) methyl methacrylate	5.111	100	61812	104.21	ug/L	#	75
65) 1,2-dichloropropane	5.099	63	175426	103.95	ug/L		97
66) dibromomethane	5.172	93	110433	102.50	ug/L		98
67) methylcyclohexane	5.105	83	254296	99.51	ug/L		99
68) bromodichloromethane	5.294	83	231611	103.59	ug/L		99
69) epichlorohydrin	5.532	57	125291	517.05	ug/L		93
70) cis-1,3-dichloropropene	5.629	75	297773	101.73	ug/L		97
71) 4-methyl-2-pentanone	5.727	58	352324	416.13	ug/L		95
72) 3-methyl-1-butanol	5.751	55	253716	2011.76	ug/L		99
75) toluene	5.916	92	441398	101.01	ug/L		100
76) trans-1,3-dichloropropene	6.080	75	282563	104.27	ug/L		98
77) ethyl methacrylate	6.105	69	266418	100.87	ug/L		96
78) 1,1,2-trichloroethane	6.245	83	140255	103.31	ug/L		99
79) tetrachloroethene	6.361	164	168766	99.37	ug/L		97
80) 1,3-dichloropropane	6.391	76	288504	101.83	ug/L		99
81) 2-hexanone	6.410	58	353733	391.11	ug/L		99
82) butyl acetate	6.507	56	145340	102.44	ug/L		94
83) dibromochloromethane	6.586	129	209681	104.79	ug/L		100
84) 1,2-dibromoethane	6.696	107	185640	102.83	ug/L		96
85) n-butyl ether	7.190	57	708780	100.73	ug/L		99
86) chlorobenzene	7.129	112	509368	101.81	ug/L		100
87) 1,1,1,2-tetrachloroethane	7.202	131	191924	103.20	ug/L		99
88) ethylbenzene	7.208	91	791586	97.05	ug/L		99
89) m,p-xylene	7.324	106	661352	198.83	ug/L		98
90) o-xylene	7.678	106	335416	100.35	ug/L		99
91) styrene	7.690	104	562633	100.72	ug/L		99
92) bromoform	7.861	173	169463	104.16	ug/L		98
93) butyl acrylate	7.598	55	391756	101.49	ug/L		97
94) n-amyl acetate	7.806	70	164678	100.57	ug/L		99
95) isopropylbenzene	8.013	105	821168	98.84	ug/L		98
96) cis-1,4-dichloro-2-butene	8.056	88	97563	66.02	ug/L		94
99) bromobenzene	8.324	156	231964	100.52	ug/L		100
100) 1,1,2,2-tetrachloroethane	8.287	83	225343	103.62	ug/L		99
101) trans-1,4-dichloro-2-b...	8.324	53	73528	101.24	ug/L		98
102) 1,2,3-trichloropropane	8.348	110	76533	100.56	ug/L		97
103) n-propylbenzene	8.409	91	872061	98.36	ug/L		99
104) 2-chlorotoluene	8.501	126	206291	103.12	ug/L		99
105) 4-chlorotoluene	8.617	126	211281	102.14	ug/L		99
106) 1,3,5-trimethylbenzene	8.580	105	631049	99.67	ug/L		99
107) tert-butylbenzene	8.885	134	158575	102.16	ug/L		98
108) 1,2,4-trimethylbenzene	8.940	105	651084	98.84	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166154.D
Acq On : 30 Jun 2021 12:40 am
Operator : brittank
Sample : ic7065-100
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 30 09:09:23 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration

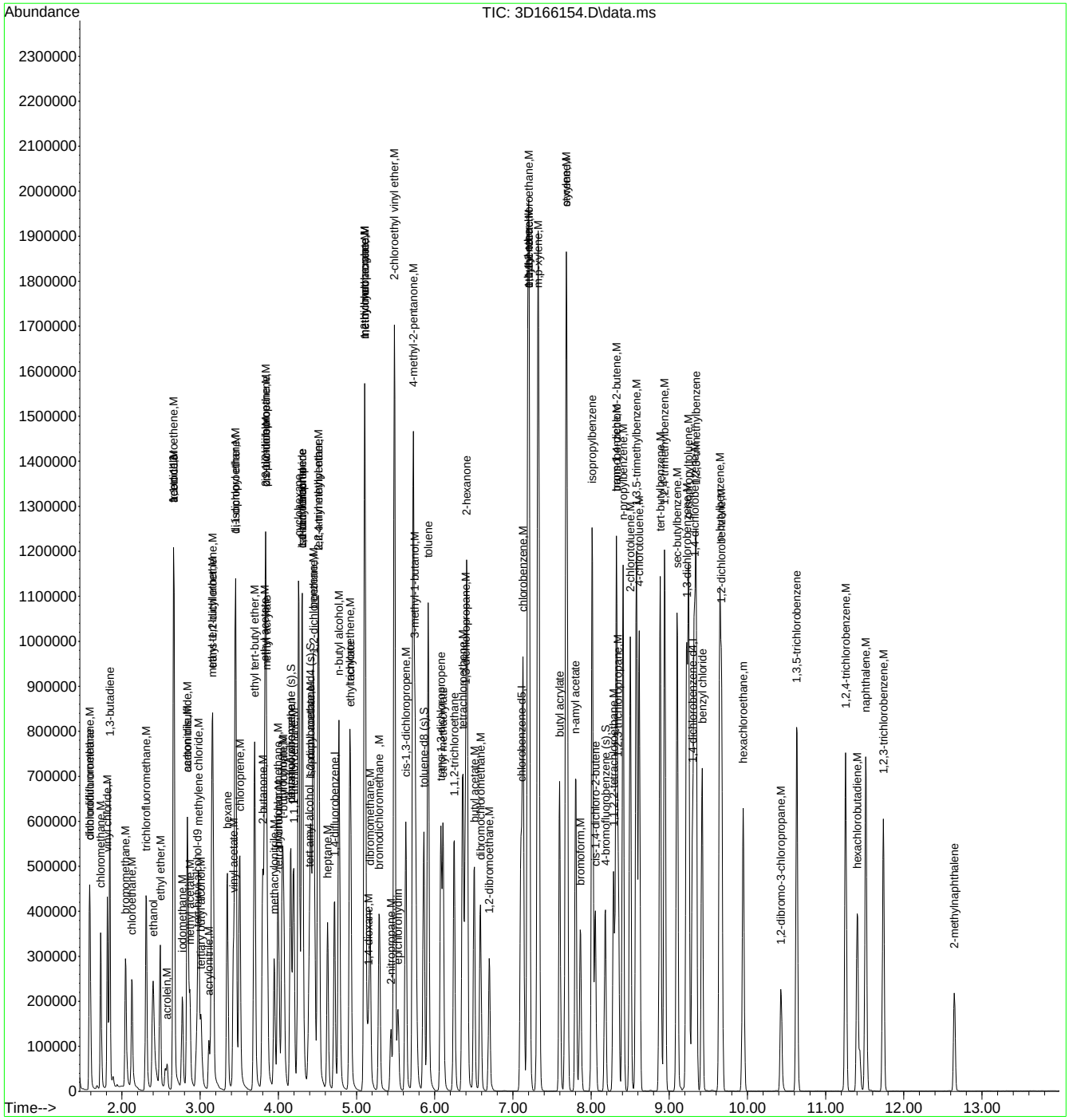
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) sec-butylbenzene	9.098	105	747534	100.32	ug/L	98
110) 1,3-dichlorobenzene	9.220	146	403391	101.04	ug/L	98
111) p-isopropyltoluene	9.244	119	642775	99.04	ug/L	98
112) 1,4-dichlorobenzene	9.318	146	399158	101.34	ug/L	99
113) 1,2,3-trimethylbenzene	9.342	105	663713	99.47	ug/L	97
114) benzyl chloride	9.421	91	491434	102.82	ug/L	100
115) 1,2-dichlorobenzene	9.671	146	379014	99.69	ug/L	95
116) n-butylbenzene	9.647	92	299853	103.23	ug/L	95
117) 1,2-dibromo-3-chloropr...	10.427	157	71750	103.74	ug/L	95
118) 1,3,5-trichlorobenzene	10.634	180	282038	101.15	ug/L	99
120) 1,2,4-trichlorobenzene	11.256	180	252645	102.04	ug/L	96
121) hexachlorobutadiene	11.409	225	86192	105.73	ug/L	97
122) naphthalene	11.512	128	622728	99.38	ug/L	98
123) 1,2,3-trichlorobenzene	11.738	180	207484	102.04	ug/L	95
124) hexachloroethane	9.946	201	126507	105.11	ug/L	99
125) 2-methylnaphthalene	12.646	142	112438	55.65	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166154.D
Acq On : 30 Jun 2021 12:40 am
Operator : brittank
Sample : ic7065-100
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 30 09:09:23 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 08:36:02 2021
QLast Update : Wed Jun 30 08:36:02 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166155.D
Acq On : 30 Jun 2021 1:04 am
Operator : brittank
Sample : ic7065-200
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 18:48:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 10:36:36 2021
QLast Update : Wed Jun 30 10:36:36 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.965	65	123657	500.00	ug/L	0.01
5) pentafluorobenzene	4.154	168	231071	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	324951	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	294985	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	137643	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	89832	51.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.62%			
52) 1,2-dichloroethane-d4 (s)	4.404	65	90143	47.13	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.26%			
74) toluene-d8 (s)	5.861	98	362294	47.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.12%			
98) 4-bromofluorobenzene (s)	8.184	95	127701	50.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.18%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.020	59	300207	1008.94	ug/L	100
3) ethanol	2.411	45	555956	19115.72	ug/L	98
4) 1,4-dioxane	5.148	88	154820	5279.18	ug/L	98
6) chlorodifluoromethane	1.594	51	350005	211.54	ug/L	99
7) dichlorodifluoromethane	1.582	85	464846	209.57	ug/L	99
8) chloromethane	1.728	50	477879	184.29	ug/L	99
9) vinyl chloride	1.813	62	535229	195.77	ug/L	98
10) 1,3-butadiene	1.844	54	339873	195.37	ug/L	99
11) bromomethane	2.039	94	308778	216.03	ug/L	95
12) chloroethane	2.118	64	335421	194.39	ug/L	98
13) trichlorofluoromethane	2.307	101	548949	203.90	ug/L	98
14) ethyl ether	2.490	74	205529	211.68	ug/L	95
15) acrolein	2.581	56	68705	212.36	ug/L	97
16) freon 113	2.661	151	263931	207.71	ug/L	96
17) 1,1-dichloroethene	2.661	96	279209	203.21	ug/L	97
18) acetone	2.667	58	202645	811.96	ug/L	93
19) acetonitrile	2.843	41	504670	1847.11	ug/L	98
20) iodomethane	2.770	142	396028	197.36	ug/L	99
21) carbon disulfide	2.831	76	823983	206.49	ug/L	96
22) methylene chloride	2.978	84	335419	187.94	ug/L	98
23) methyl acetate	2.868	43	298615	195.56	ug/L	99
24) methyl tert butyl ether	3.148	73	965771	210.83	ug/L	95
25) trans-1,2-dichloroethene	3.167	96	318298	202.29	ug/L	98
26) di-isopropyl ether	3.453	45	949168	201.92	ug/L	99
27) 2-butanone	3.801	72	252303	890.74	ug/L	95
28) 1,1-dichloroethane	3.447	63	542330	192.13	ug/L	99
29) chloroprene	3.502	53	475590	220.07	ug/L	98
30) acrylonitrile	3.112	53	141678	205.35	ug/L	97
31) hexane	3.343	56	205281	220.25	ug/L	99
32) vinyl acetate	3.423	86	72088	194.07	ug/L	95
33) ethyl tert-butyl ether	3.697	59	1061003	213.33	ug/L	97
34) ethyl acetate	3.819	45	69740	223.46	ug/L #	94
35) 2,2-dichloropropane	3.843	77	509885	204.67	ug/L	96
36) cis-1,2-dichloroethene	3.831	96	358500	202.72	ug/L	100
37) methyl acrylate	3.862	85	68911	222.62	ug/L	89
38) propionitrile	3.837	54	618682	2076.00	ug/L	97
39) bromochloromethane	3.996	128	194687	212.24	ug/L	98
40) tetrahydrofuran	4.008	42	117603	188.50	ug/L	99
41) chloroform	4.051	85	376142	193.14	ug/L	96
42) t-butyl formate	4.069	59	262784	224.24	ug/L	95
44) methacrylonitrile	3.947	67	172572	223.39	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166155.D
Acq On : 30 Jun 2021 1:04 am
Operator : brittank
Sample : ic7065-200
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 18:48:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 10:36:36 2021
QLast Update : Wed Jun 30 10:36:36 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) 1,1,1-trichloroethane	4.191	97	536957	213.52	ug/L		96
46) cyclohexane	4.258	84	484091	202.29	ug/L		98
47) 1,1-dichloropropene	4.301	75	461356	214.60	ug/L		97
48) iso-butyl alcohol	4.307	43	220763	2046.90	ug/L		97
49) carbon tetrachloride	4.313	117	469136	215.32	ug/L		98
50) tert amyl alcohol	4.398	55	103530	975.44	ug/L		87
53) n-butyl alcohol	4.782	56	856089	10590.65	ug/L		98
54) 2,2,4-trimethylpentane	4.520	57	675049	196.46	ug/L		95
55) benzene	4.447	78	1231978	186.65	ug/L		96
56) tert-amyl methyl ether	4.514	87	283904	218.62	ug/L		95
57) heptane	4.630	71	179736	203.46	ug/L		95
58) isopropyl acetate	4.416	87	108060	215.66	ug/L	#	91
59) 1,2-dichloroethane	4.459	62	438778	184.57	ug/L		99
60) trichloroethene	4.916	130	424425	218.67	ug/L		98
61) ethyl acrylate	4.928	55	496978	206.76	ug/L		100
62) 2-nitropropane	5.441	41	124949	208.85	ug/L		96
63) 2-chloroethyl vinyl ether	5.483	63	1264977	1077.34	ug/L		97
64) methyl methacrylate	5.111	100	123390	211.78	ug/L	#	81
65) 1,2-dichloropropane	5.105	63	358338	222.61	ug/L		98
66) dibromomethane	5.172	93	220249	204.01	ug/L		98
67) methylcyclohexane	5.105	83	520487	214.20	ug/L		96
68) bromodichloromethane	5.294	83	466122	209.46	ug/L		99
69) epichlorohydrin	5.532	57	246322	1050.69	ug/L		90
70) cis-1,3-dichloropropene	5.630	75	597813	217.61	ug/L		94
71) 4-methyl-2-pentanone	5.727	58	685694	790.40	ug/L		92
72) 3-methyl-1-butanol	5.758	55	509891	4184.30	ug/L		98
75) toluene	5.916	92	865265	181.72	ug/L		95
76) trans-1,3-dichloropropene	6.081	75	570607	216.22	ug/L		97
77) ethyl methacrylate	6.105	69	508783	194.94	ug/L		96
78) 1,1,2-trichloroethane	6.251	83	278774	202.93	ug/L		99
79) tetrachloroethene	6.355	164	335669	192.30	ug/L		98
80) 1,3-dichloropropane	6.392	76	566574	202.36	ug/L		98
81) 2-hexanone	6.416	58	672688	746.15	ug/L		95
82) butyl acetate	6.507	56	277808	189.37	ug/L		94
83) dibromochloromethane	6.587	129	417930	213.67	ug/L		99
84) 1,2-dibromoethane	6.696	107	369283	203.89	ug/L		97
85) n-butyl ether	7.190	57	1373618	187.65	ug/L		97
86) chlorobenzene	7.129	112	987085	184.83	ug/L		97
87) 1,1,1,2-tetrachloroethane	7.202	131	382919	208.00	ug/L		98
88) ethylbenzene	7.208	91	1506295	173.14	ug/L		96
89) m,p-xylene	7.324	106	1289969	367.38	ug/L		91
90) o-xylene	7.678	106	670070	193.84	ug/L		93
91) styrene	7.690	104	1086756	190.92	ug/L		94
92) bromoform	7.861	173	338881	220.39	ug/L		98
93) butyl acrylate	7.599	55	762600	207.21	ug/L		95
94) n-amyl acetate	7.806	70	320586	208.32	ug/L		99
95) isopropylbenzene	8.013	105	1556051	178.30	ug/L		94
96) cis-1,4-dichloro-2-butene	8.056	88	193706	205.90	ug/L		93
99) bromobenzene	8.324	156	445508	195.19	ug/L		100
100) 1,1,2,2-tetrachloroethane	8.288	83	435267	200.05	ug/L		97
101) trans-1,4-dichloro-2-b...	8.324	53	149440	220.15	ug/L		91
102) 1,2,3-trichloropropane	8.348	110	147915	199.51	ug/L		99
103) n-propylbenzene	8.409	91	1642419	182.37	ug/L		95
104) 2-chlorotoluene	8.501	126	401258	202.94	ug/L		97
105) 4-chlorotoluene	8.617	126	411154	205.08	ug/L		95
106) 1,3,5-trimethylbenzene	8.580	105	1206583	189.81	ug/L		97
107) tert-butylbenzene	8.885	134	313061	214.47	ug/L		95
108) 1,2,4-trimethylbenzene	8.940	105	1249851	189.09	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166155.D
Acq On : 30 Jun 2021 1:04 am
Operator : brittank
Sample : ic7065-200
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 18:48:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 10:36:36 2021
QLast Update : Wed Jun 30 10:36:36 2021
Response via : Initial Calibration

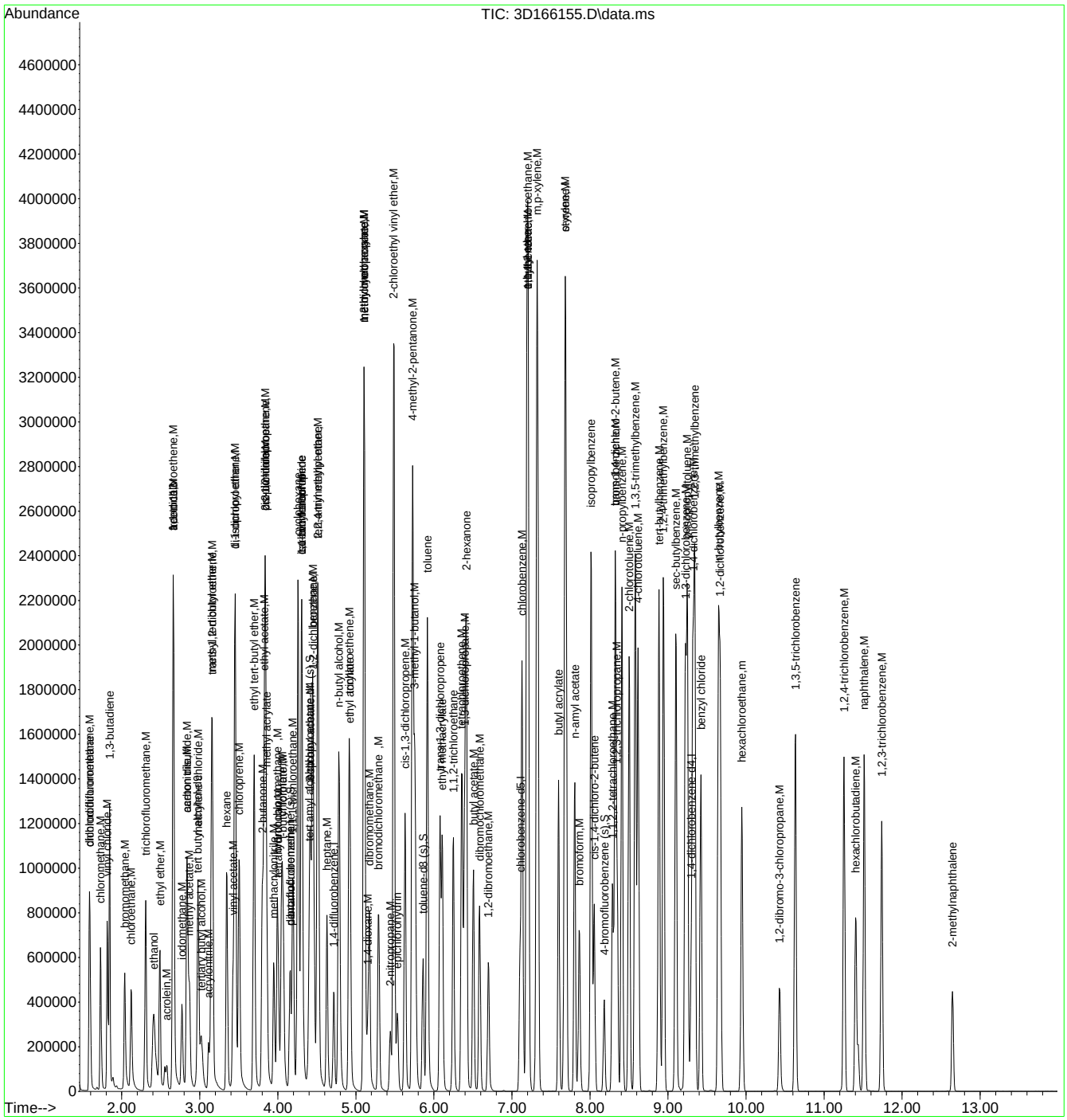
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
109) sec-butylbenzene	9.098	105	1431756	195.71 ug/L	97
110) 1,3-dichlorobenzene	9.220	146	784479	201.18 ug/L	99
111) p-isopropyltoluene	9.251	119	1222345	187.50 ug/L	96
112) 1,4-dichlorobenzene	9.318	146	770325	193.17 ug/L	98
113) 1,2,3-trimethylbenzene	9.342	105	1257169	186.11 ug/L	96
114) benzyl chloride	9.421	91	955994	222.09 ug/L	99
115) 1,2-dichlorobenzene	9.671	146	730503	199.43 ug/L	93
116) n-butylbenzene	9.647	92	602138	221.60 ug/L	93
117) 1,2-dibromo-3-chloropr...	10.433	157	144989	226.90 ug/L	97
118) 1,3,5-trichlorobenzene	10.635	180	555173	215.90 ug/L	100
120) 1,2,4-trichlorobenzene	11.256	180	499953	226.80 ug/L	99
121) hexachlorobutadiene	11.403	225	168263	218.10 ug/L	98
122) naphthalene	11.513	128	1184917	208.98 ug/L	95
123) 1,2,3-trichlorobenzene	11.738	180	409952	226.11 ug/L	96
124) hexachloroethane	9.946	201	254429	227.81 ug/L	99
125) 2-methylnaphthalene	12.646	142	231555	101.43 ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166155.D
Acq On : 30 Jun 2021 1:04 am
Operator : brittank
Sample : ic7065-200
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 18:48:17 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 10:36:36 2021
QLast Update : Wed Jun 30 10:36:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166158.D
Acq On : 30 Jun 2021 2:19 am
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 30 17:19:18 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.953	65	129664	500.00	ug/L		0.00
5) pentafluorobenzene	4.160	168	244521	50.00	ug/L		0.00
51) 1,4-difluorobenzene	4.721	114	326351	50.00	ug/L		0.00
73) chlorobenzene-d5	7.105	117	285893	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	9.293	152	140030	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	4.160	113	92382	50.35	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%				
52) 1,2-dichloroethane-d4 (s)	4.404	65	92048	47.92	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.84%				
74) toluene-d8 (s)	5.861	98	362013	48.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.04%				
98) 4-bromofluorobenzene (s)	8.184	95	127808	49.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.008	59	78558	251.79	ug/L		98
3) ethanol	2.392	45	163197	5351.33	ug/L		98
4) 1,4-dioxane	5.142	88	42020	1366.45	ug/L		98
8) chloromethane	1.728	50	134619	49.06	ug/L		97
9) vinyl chloride	1.813	62	159792	55.23	ug/L		97
10) 1,3-butadiene	1.844	54	114950	62.44	ug/L		99
11) bromomethane	2.057	94	91369	60.41	ug/L		95
12) chloroethane	2.130	64	93496	51.20	ug/L		97
13) trichlorofluoromethane	2.313	101	157981	55.45	ug/L		98
14) ethyl ether	2.490	74	60559	58.94	ug/L		99
15) acrolein	2.581	56	18534	54.14	ug/L		96
16) freon 113	2.661	151	69714	51.85	ug/L		98
17) 1,1-dichloroethene	2.667	96	79352	54.58	ug/L		99
18) acetone	2.667	58	52280	197.95	ug/L		99
20) iodomethane	2.776	142	108513	52.17	ug/L		96
21) carbon disulfide	2.837	76	224837	53.25	ug/L		99
22) methylene chloride	2.978	84	91792	48.60	ug/L		99
23) methyl acetate	2.868	43	76591	47.40	ug/L		99
24) methyl tert butyl ether	3.148	73	273294	56.38	ug/L		99
25) trans-1,2-dichloroethene	3.167	96	86995	52.25	ug/L		95
26) di-isopropyl ether	3.453	45	248366	49.93	ug/L		99
27) 2-butanone	3.801	72	64554	215.37	ug/L		99
28) 1,1-dichloroethane	3.453	63	146486	49.04	ug/L		99
29) chloroprene	3.508	53	137249	60.02	ug/L		99
31) hexane	3.349	56	61386	62.24	ug/L		98
32) vinyl acetate	3.429	86	19262	49.00	ug/L	#	86
33) ethyl tert-butyl ether	3.697	59	262254	49.83	ug/L		98
34) ethyl acetate	3.819	45	18057	54.68	ug/L	#	86
35) 2,2-dichloropropane	3.843	77	130846	49.63	ug/L		98
36) cis-1,2-dichloroethene	3.831	96	96473	51.55	ug/L		98
37) methyl acrylate	3.862	85	17153	52.37	ug/L	#	89
38) propionitrile	3.837	54	161006	510.54	ug/L		99
39) bromochloromethane	3.996	128	50793	52.33	ug/L		93
40) tetrahydrofuran	4.008	42	30135	45.64	ug/L		95
41) chloroform	4.051	85	99138	48.11	ug/L		98
42) t-butyl formate	4.069	59	39124	31.55	ug/L		100
44) methacrylonitrile	3.947	67	44183	54.05	ug/L		96
45) 1,1,1-trichloroethane	4.197	97	141925	53.33	ug/L		98
46) cyclohexane	4.258	84	134917	53.28	ug/L		100
47) 1,1-dichloropropene	4.300	75	121916	53.59	ug/L		97
48) iso-butyl alcohol	4.294	43	51055	447.34	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166158.D
Acq On : 30 Jun 2021 2:19 am
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 30 17:19:18 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) carbon tetrachloride	4.313	117	125055	54.24	ug/L		100
50) tert amyl alcohol	4.392	55	27437	244.29	ug/L		91
53) n-butyl alcohol	4.770	56	206662	2545.64	ug/L		100
54) 2,2,4-trimethylpentane	4.520	57	165106	47.84	ug/L		99
55) benzene	4.447	78	339844	51.27	ug/L		98
56) tert-amyl methyl ether	4.514	87	63018	48.32	ug/L		96
57) heptane	4.630	71	46522	52.44	ug/L		96
58) isopropyl acetate	4.416	87	25940	51.55	ug/L	#	85
59) 1,2-dichloroethane	4.465	62	115345	48.31	ug/L		97
60) trichloroethene	4.916	130	110136	56.50	ug/L		98
61) ethyl acrylate	4.928	55	125226	51.88	ug/L		100
62) 2-nitropropane	5.440	41	29324	48.80	ug/L		92
63) 2-chloroethyl vinyl ether	5.483	63	312692	265.17	ug/L		98
64) methyl methacrylate	5.105	100	31239	53.39	ug/L		96
65) 1,2-dichloropropane	5.105	63	88409	54.69	ug/L		99
66) dibromomethane	5.172	93	55184	50.90	ug/L		97
67) methylcyclohexane	5.111	83	130947	53.66	ug/L		98
68) bromodichloromethane	5.294	83	115579	51.72	ug/L		98
69) epichlorohydrin	5.532	57	62279	264.51	ug/L		98
70) cis-1,3-dichloropropene	5.629	75	147619	53.50	ug/L		99
71) 4-methyl-2-pentanone	5.727	58	168761	193.70	ug/L		96
72) 3-methyl-1-butanol	5.745	55	122680	1002.43	ug/L		97
75) toluene	5.916	92	227657	49.33	ug/L		97
76) trans-1,3-dichloropropene	6.081	75	141777	55.43	ug/L		98
77) ethyl methacrylate	6.105	69	132658	52.44	ug/L		96
78) 1,1,2-trichloroethane	6.251	83	69912	52.51	ug/L		98
80) 1,3-dichloropropane	6.391	76	144590	53.28	ug/L		99
81) 2-hexanone	6.410	58	180491	206.57	ug/L		99
82) butyl acetate	6.507	56	72470	50.97	ug/L		96
83) dibromochloromethane	6.587	129	107405	56.66	ug/L		99
84) 1,2-dibromoethane	6.696	107	93630	53.34	ug/L		99
85) n-butyl ether	7.190	57	346897	48.90	ug/L		100
86) chlorobenzene	7.129	112	259753	50.19	ug/L		99
87) 1,1,1,2-tetrachloroethane	7.202	131	95822	53.71	ug/L		98
88) ethylbenzene	7.208	91	417742	49.54	ug/L		100
89) m,p-xylene	7.324	106	347990	102.26	ug/L		99
90) o-xylene	7.678	106	172447	51.47	ug/L		100
91) styrene	7.690	104	288617	52.32	ug/L		98
92) bromoform	7.861	173	85094	57.10	ug/L		99
93) butyl acrylate	7.599	55	191118	53.58	ug/L		97
94) n-amyl acetate	7.806	70	79925	53.59	ug/L		93
95) isopropylbenzene	8.013	105	427746	50.57	ug/L		99
96) cis-1,4-dichloro-2-butene	8.056	88	53604	45.54	ug/L		96
99) bromobenzene	8.324	156	121842	52.47	ug/L		96
100) 1,1,2,2-tetrachloroethane	8.287	83	110268	49.82	ug/L		97
101) trans-1,4-dichloro-2-b...	8.324	53	36901	53.43	ug/L		87
102) 1,2,3-trichloropropane	8.348	110	39160	51.92	ug/L		97
103) n-propylbenzene	8.409	91	461483	50.37	ug/L		99
104) 2-chlorotoluene	8.501	126	106770	53.08	ug/L		97
105) 4-chlorotoluene	8.617	126	108353	53.13	ug/L		100
106) 1,3,5-trimethylbenzene	8.580	105	334619	51.74	ug/L		99
107) tert-butylbenzene	8.885	134	82344	55.45	ug/L		99
108) 1,2,4-trimethylbenzene	8.940	105	345109	51.32	ug/L		99
109) sec-butylbenzene	9.098	105	388564	52.21	ug/L		99
110) 1,3-dichlorobenzene	9.220	146	209758	52.88	ug/L		97
111) p-isopropyltoluene	9.245	119	341974	51.56	ug/L		99
112) 1,4-dichlorobenzene	9.318	146	207144	51.06	ug/L		98
114) benzyl chloride	9.421	91	227325	51.91	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166158.D
Acq On : 30 Jun 2021 2:19 am
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 30 17:19:18 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration

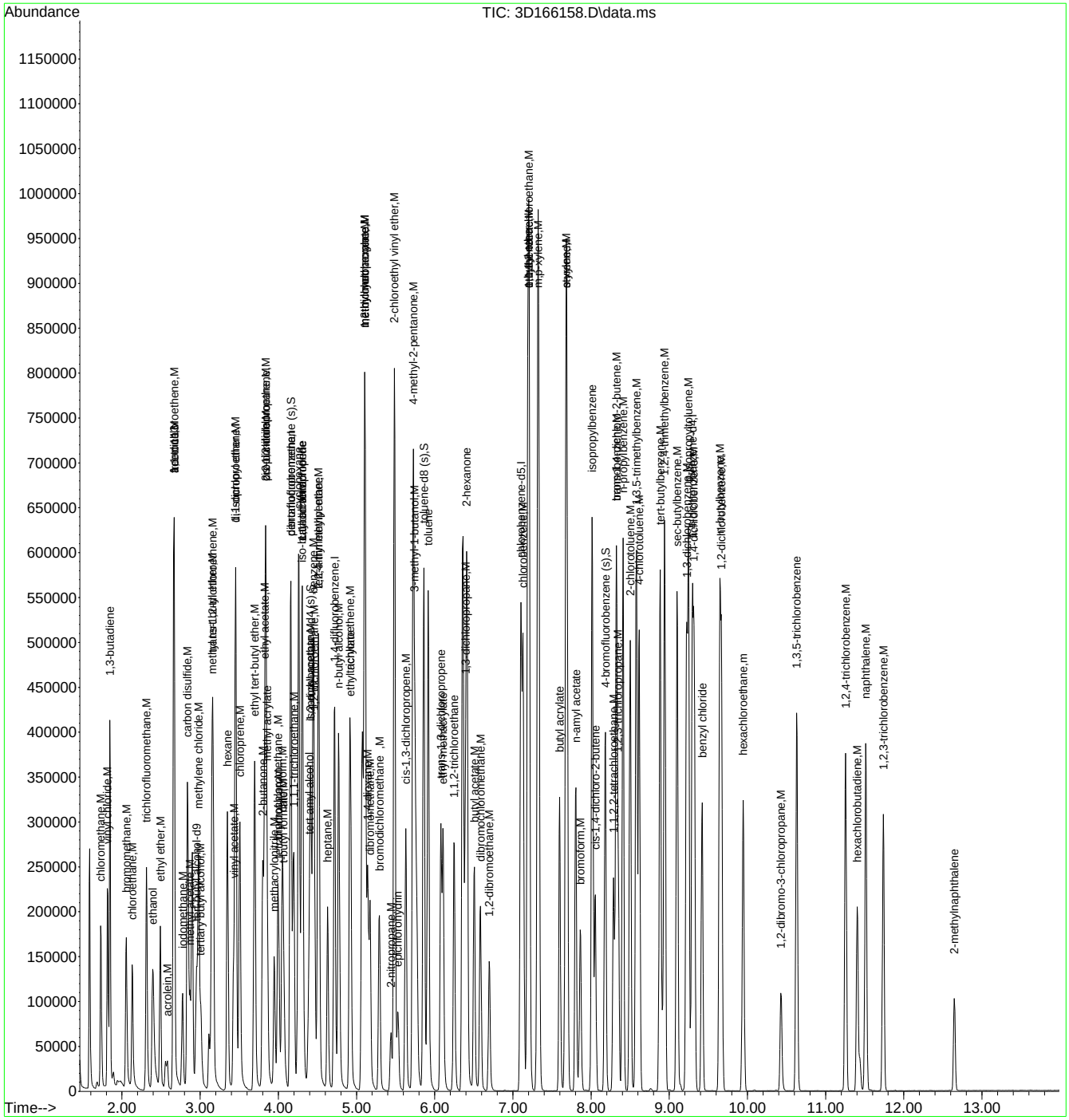
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) 1,2-dichlorobenzene	9.671	146	196982	52.86	ug/L	96
116) n-butylbenzene	9.647	92	152720	55.25	ug/L	96
117) 1,2-dibromo-3-chloropr...	10.433	157	34595	53.22	ug/L	96
118) 1,3,5-trichlorobenzene	10.635	180	145003	55.43	ug/L	99
120) 1,2,4-trichlorobenzene	11.256	180	129074	57.55	ug/L	96
121) hexachlorobutadiene	11.403	225	44150	56.25	ug/L	97
122) naphthalene	11.512	128	320376	55.54	ug/L	99
123) 1,2,3-trichlorobenzene	11.738	180	107771	58.43	ug/L	98
124) hexachloroethane	9.946	201	64089	56.41	ug/L	98
125) 2-methylnaphthalene	12.646	142	53833	24.82	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166158.D
Acq On : 30 Jun 2021 2:19 am
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 30 17:19:18 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166159.D
Acq On : 30 Jun 2021 2:44 am
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 30 17:20:16 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration

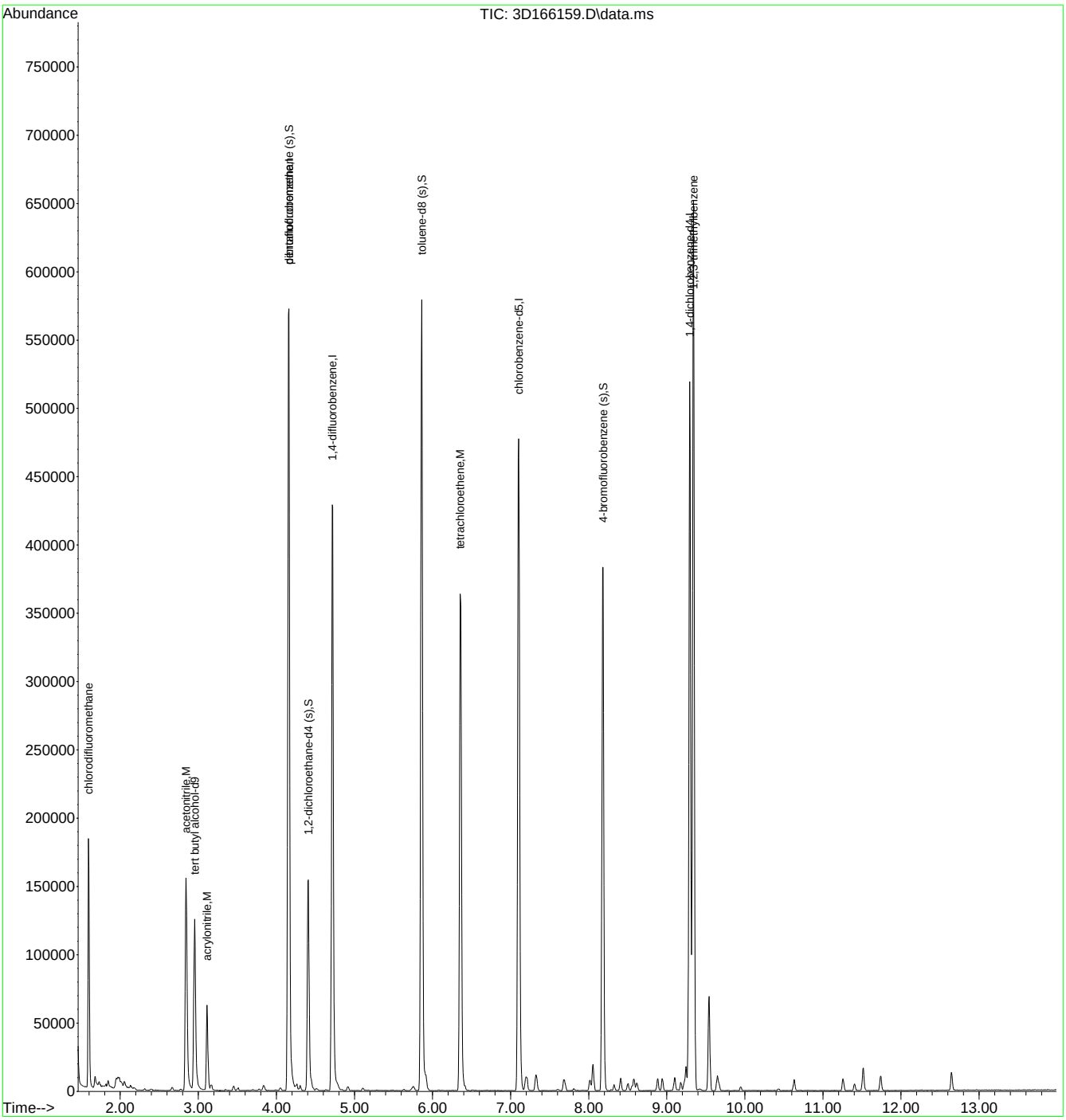
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.953	65	122731	500.00	ug/L	0.00
5) pentafluorobenzene	4.154	168	258773	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	327278	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	277086	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	143299	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	94467	48.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.30%			
52) 1,2-dichloroethane-d4 (s)	4.404	65	92753	48.15	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.30%			
74) toluene-d8 (s)	5.861	98	374088	51.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.46%			
98) 4-bromofluorobenzene (s)	8.178	95	125235	47.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.30%			
Target Compounds						Qvalue
6) chlorodifluoromethane	1.594	51	136457	73.65	ug/L	92
19) acetonitrile	2.843	41	138160	451.54	ug/L	97
30) acrylonitrile	3.112	53	37098	48.01	ug/L	95
79) tetrachloroethene	6.361	164	88328	53.87	ug/L	97
113) 1,2,3-trimethylbenzene	9.342	105	378538	53.83	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166159.D
Acq On : 30 Jun 2021 2:44 am
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 30 17:20:16 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166162.D
Acq On : 30 Jun 2021 12:30 pm
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 30 17:21:19 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration

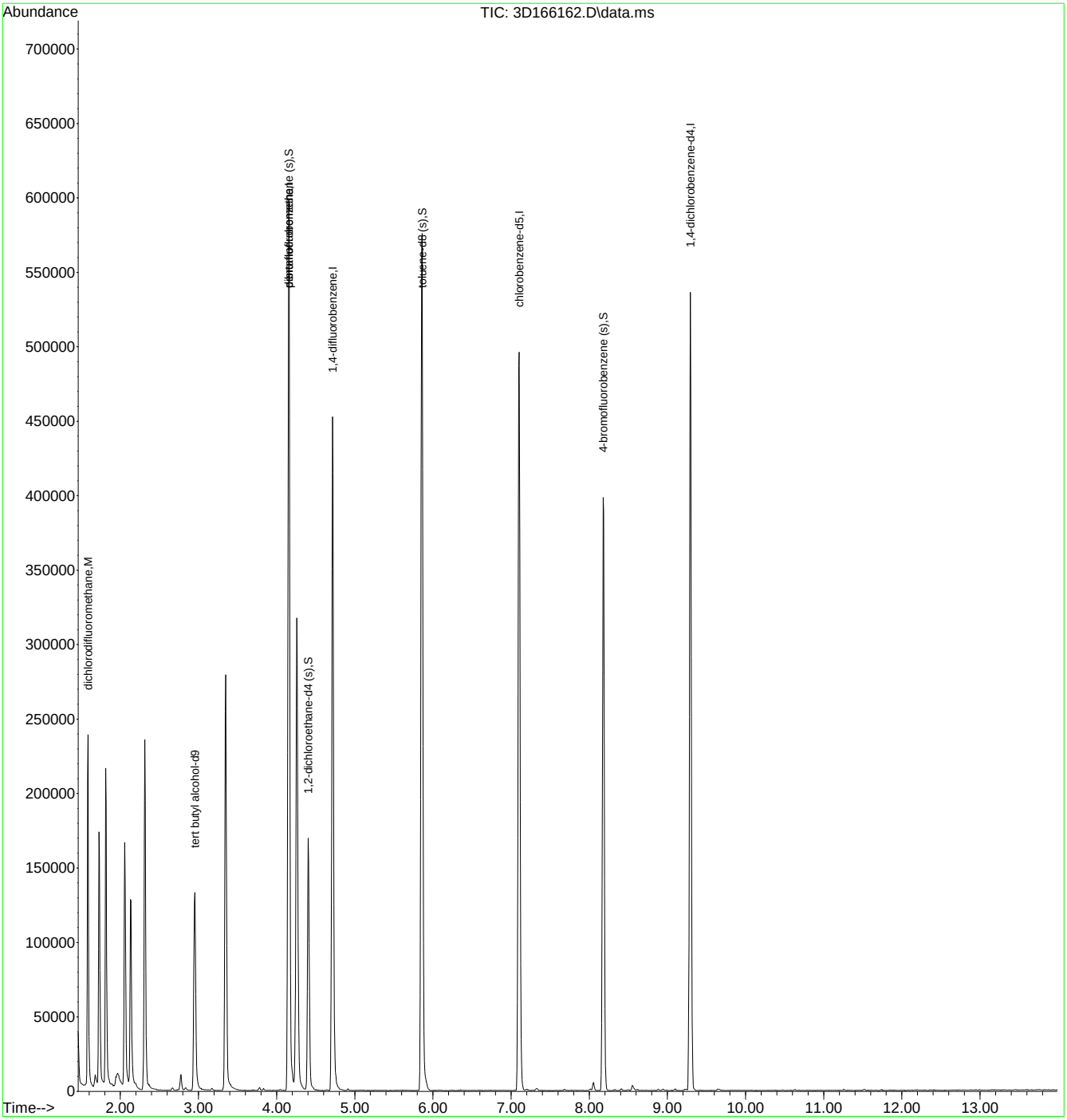
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.953	65	133833	500.00	ug/L	0.00
5) pentafluorobenzene	4.154	168	261061	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.715	114	332597	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	285785	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.293	152	145975	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	96362	49.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.38%			
52) 1,2-dichloroethane-d4 (s)	4.404	65	98657	50.40	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.80%			
74) toluene-d8 (s)	5.861	98	379308	50.86	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.72%			
98) 4-bromofluorobenzene (s)	8.178	95	131084	48.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%			
Target Compounds						Qvalue
7) dichlorodifluoromethane	1.588	85	145175	57.35	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D7065\
Data File : 3D166162.D
Acq On : 30 Jun 2021 12:30 pm
Operator : brittank
Sample : icv7065-50
Misc : MS51769,V3D7065,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 30 17:21:19 2021
Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 12:10:24 2021
QLast Update : Wed Jun 30 12:10:24 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166746.d
Acq On : 14 Jul 2021 9:26 pm
Operator : BridgetK
Sample : CC7065-50 Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:19:35 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.953	65	124443	500.00	ug/L	0.00
5) pentafluorobenzene	4.160	168	207320	50.00	ug/L	0.00
51) 1,4-difluorobenzene	4.721	114	303036	50.00	ug/L	0.00
73) chlorobenzene-d5	7.105	117	279090	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	9.294	152	137773	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	4.160	113	84726	54.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.92%			
52) 1,2-dichloroethane-d4 (s)	4.404	65	84826	47.56	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.12%			
74) toluene-d8 (s)	5.861	98	347171	47.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.32%			
98) 4-bromofluorobenzene (s)	8.184	95	126735	50.16	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.32%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.008	59	69331	231.54	ug/L	92
3) ethanol	2.392	45	146270	4997.51	ug/L	98
4) 1,4-dioxane	5.142	88	39835	1349.75	ug/L	94
6) chlorodifluoromethane	1.594	51	75040	50.55	ug/L	99
7) dichlorodifluoromethane	1.582	85	107159	53.63	ug/L	98
8) chloromethane	1.728	50	107827	46.35	ug/L	99
9) vinyl chloride	1.813	62	120599	49.16	ug/L	99
10) 1,3-butadiene	1.844	54	84336	54.03	ug/L	98
11) bromomethane	2.051	94	60956	47.53	ug/L	97
12) chloroethane	2.130	64	74229	47.95	ug/L	98
13) trichlorofluoromethane	2.313	101	130971	54.22	ug/L	100
14) ethyl ether	2.490	74	47247	54.24	ug/L	99
15) acrolein	2.581	56	15821	54.50	ug/L	95
16) freon 113	2.661	151	61807	54.21	ug/L	98
17) 1,1-dichloroethene	2.667	96	63343	51.38	ug/L	99
18) acetone	2.667	58	40618	181.39	ug/L	92
19) acetonitrile	2.844	41	122915	501.41	ug/L	96
20) iodomethane	2.770	142	67503	38.66	ug/L	96
21) carbon disulfide	2.837	76	164981	46.08	ug/L	99
22) methylene chloride	2.978	84	79518	49.66	ug/L	95
23) methyl acetate	2.868	43	70539	51.49	ug/L	99
24) methyl tert butyl ether	3.148	73	221580	53.91	ug/L	98
25) trans-1,2-dichloroethene	3.167	96	71547	50.68	ug/L	99
26) di-isopropyl ether	3.453	45	223883	53.08	ug/L	99
27) 2-butanone	3.801	72	54563	214.70	ug/L	95
28) 1,1-dichloroethane	3.453	63	123080	48.60	ug/L	99
29) chloroprene	3.508	53	103306	53.28	ug/L	99
30) acrylonitrile	3.112	53	34111	55.11	ug/L	99
31) hexane	3.350	56	45925	54.92	ug/L	97
32) vinyl acetate	3.429	86	21200	63.61	ug/L #	89
33) ethyl tert-butyl ether	3.697	59	235187	52.70	ug/L	99
34) ethyl acetate	3.819	45	15430	55.11	ug/L #	92
35) 2,2-dichloropropane	3.843	77	99498	44.51	ug/L	98
36) cis-1,2-dichloroethene	3.831	96	82009	51.69	ug/L	95
37) methyl acrylate	3.862	85	16184	58.27	ug/L	91
38) propionitrile	3.837	54	148946	557.05	ug/L	99
39) bromochloromethane	3.996	128	42699	51.88	ug/L	98
40) tetrahydrofuran	4.008	42	27513	49.15	ug/L	97
41) chloroform	4.051	85	85129	48.72	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166746.d
Acq On : 14 Jul 2021 9:26 pm
Operator : BridgetK
Sample : CC7065-50 Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:19:35 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	t-butyl formate	4.069	59	47828	45.49	ug/L		84
44)	methacrylonitrile	3.947	67	39174	56.52	ug/L		95
45)	1,1,1-trichloroethane	4.197	97	116535	51.65	ug/L		97
46)	cyclohexane	4.258	84	111656	52.00	ug/L		97
47)	1,1-dichloropropene	4.301	75	102199	52.98	ug/L		98
48)	iso-butyl alcohol	4.301	43	51557	532.80	ug/L		97
49)	carbon tetrachloride	4.313	117	102160	52.26	ug/L		100
50)	tert amyl alcohol	4.392	55	28120	295.29	ug/L	#	81
53)	n-butyl alcohol	4.770	56	195377	2591.79	ug/L		98
54)	2,2,4-trimethylpentane	4.520	57	155391	48.49	ug/L		96
55)	benzene	4.447	78	290161	47.14	ug/L		98
56)	tert-amyl methyl ether	4.514	87	60257	49.76	ug/L		97
57)	heptane	4.630	71	41195	50.01	ug/L		97
58)	isopropyl acetate	4.416	87	24121	51.62	ug/L		97
59)	1,2-dichloroethane	4.465	62	100339	45.26	ug/L		99
60)	trichloroethene	4.916	130	86340	47.70	ug/L		96
61)	ethyl acrylate	4.929	55	114476	51.07	ug/L		98
62)	2-nitropropane	5.441	41	23209	41.60	ug/L		89
63)	2-chloroethyl vinyl ether	5.483	63	285734	260.95	ug/L		99
64)	methyl methacrylate	5.105	100	27291	50.23	ug/L		94
65)	1,2-dichloropropane	5.105	63	77352	51.53	ug/L		98
66)	dibromomethane	5.172	93	49685	49.35	ug/L		93
67)	methylcyclohexane	5.105	83	117017	51.64	ug/L		99
68)	bromodichloromethane	5.294	83	99230	47.82	ug/L		99
69)	epichlorohydrin	5.532	57	55766	255.07	ug/L		98
70)	cis-1,3-dichloropropene	5.630	75	125004	48.79	ug/L		99
71)	4-methyl-2-pentanone	5.727	58	162665	201.06	ug/L		94
72)	3-methyl-1-butanol	5.745	55	114825	1010.43	ug/L		98
75)	toluene	5.916	92	193181	42.88	ug/L		98
76)	trans-1,3-dichloropropene	6.081	75	113387	45.41	ug/L		99
77)	ethyl methacrylate	6.105	69	118059	47.81	ug/L		99
78)	1,1,2-trichloroethane	6.245	83	63280	48.69	ug/L		98
79)	tetrachloroethene	6.361	164	72237	43.74	ug/L		97
80)	1,3-dichloropropane	6.392	76	130673	49.33	ug/L		96
81)	2-hexanone	6.410	58	160543	188.22	ug/L		99
82)	butyl acetate	6.507	56	66465	47.89	ug/L		95
83)	dibromochloromethane	6.587	129	85948	46.44	ug/L		98
84)	1,2-dibromoethane	6.696	107	82101	47.91	ug/L		100
85)	n-butyl ether	7.190	57	301607	43.55	ug/L		99
86)	chlorobenzene	7.129	112	224077	44.35	ug/L		98
87)	1,1,1,2-tetrachloroethane	7.202	131	81401	46.74	ug/L		97
88)	ethylbenzene	7.209	91	358814	43.59	ug/L		99
89)	m,p-xylene	7.324	106	291373	87.71	ug/L		99
90)	o-xylene	7.678	106	147455	45.09	ug/L		100
91)	styrene	7.690	104	246698	45.81	ug/L		97
92)	bromoform	7.861	173	66249	45.54	ug/L		98
93)	butyl acrylate	7.599	55	163188	46.87	ug/L		96
94)	n-amyl acetate	7.806	70	72280	49.64	ug/L		93
95)	isopropylbenzene	8.013	105	361440	43.77	ug/L		99
96)	cis-1,4-dichloro-2-butene	8.056	88	34741	30.35	ug/L		97
99)	bromobenzene	8.324	156	102353	44.80	ug/L		97
100)	1,1,2,2-tetrachloroethane	8.288	83	103550	47.55	ug/L		93
101)	trans-1,4-dichloro-2-b...	8.324	53	27531	40.52	ug/L		93
102)	1,2,3-trichloropropane	8.349	110	36034	48.56	ug/L		98
103)	n-propylbenzene	8.410	91	386735	42.90	ug/L		99
104)	2-chlorotoluene	8.501	126	88378	44.66	ug/L		98
105)	4-chlorotoluene	8.617	126	90974	45.34	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166746.d
Acq On : 14 Jul 2021 9:26 pm
Operator : BridgetK
Sample : CC7065-50 Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:19:35 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration

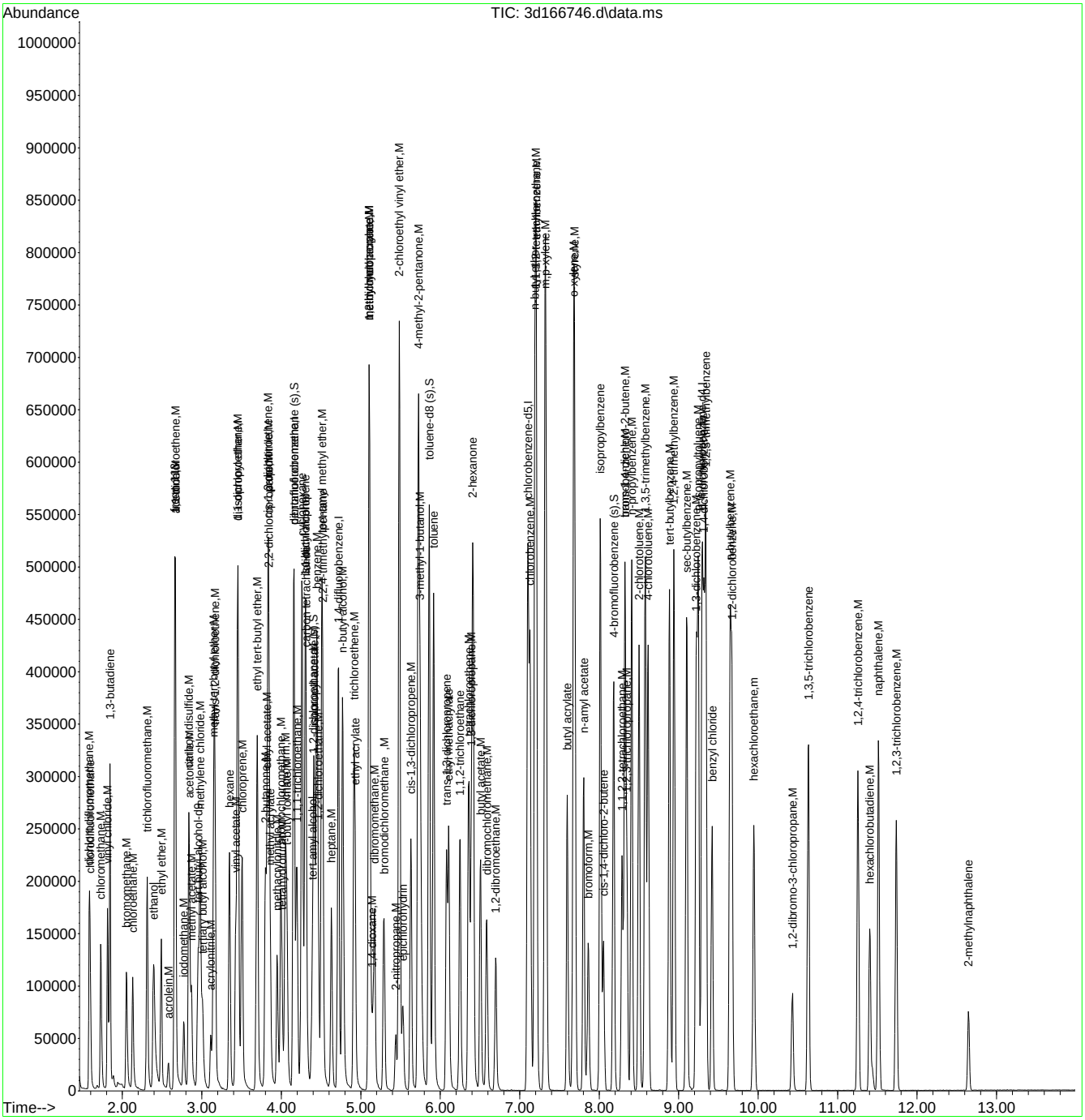
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 1,3,5-trimethylbenzene	8.580	105	275619	43.32	ug/L	99
107) tert-butylbenzene	8.885	134	66381	45.43	ug/L	94
108) 1,2,4-trimethylbenzene	8.940	105	289029	43.69	ug/L	99
109) sec-butylbenzene	9.098	105	323103	44.12	ug/L	99
110) 1,3-dichlorobenzene	9.220	146	178855	45.82	ug/L	97
111) p-isopropyltoluene	9.245	119	280314	42.96	ug/L	100
112) 1,4-dichlorobenzene	9.318	146	177039	44.35	ug/L	98
113) 1,2,3-trimethylbenzene	9.342	105	297351	43.98	ug/L	100
114) benzyl chloride	9.422	91	176826	41.04	ug/L	97
115) 1,2-dichlorobenzene	9.671	146	168767	46.03	ug/L	96
116) n-butylbenzene	9.647	92	124143	45.64	ug/L	98
117) 1,2-dibromo-3-chloropr...	10.434	157	29305	45.82	ug/L	91
118) 1,3,5-trichlorobenzene	10.635	180	118670	46.11	ug/L	98
120) 1,2,4-trichlorobenzene	11.257	180	103927	47.10	ug/L	99
121) hexachlorobutadiene	11.403	225	33187	42.98	ug/L	95
122) naphthalene	11.513	128	277210	48.84	ug/L	99
123) 1,2,3-trichlorobenzene	11.738	180	86510	47.67	ug/L	96
124) hexachloroethane	9.946	201	47378	42.38	ug/L	95
125) 2-methylnaphthalene	12.647	142	37539	18.21	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-16-2021\v3d7090\
Data File : 3d166746.d
Acq On : 14 Jul 2021 9:26 pm
Operator : BridgetK
Sample : CC7065-50 Inst : MS3D
Misc : MS52221,V3D7090,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M3D7065.M
Quant Results File: M3D7065.RES
Quant Time: Jul 15 21:19:35 2021
Quant Title : SW846 8260C/D/ EPA 624.1, Rxi-624 60 m x 0.25 mm xWed Jun 30 09:38:52 2021
QLast Update : Wed Jun 30 09:38:52 2021
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standards	ABK: V021-2718-47.16	EC: V021-2718-49.5	AA: V021-2718-23.48	Ext. Chlorodifluoromethane:	Column	Rxi-624(30mx0.25mmx1.4um)
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Method	V8260D
Expiration Date	7/23/21	7/1/21	7/8/21	7/29/21	Init Calib Date	6/29/2021
Standards	Ext. ABK: 021-2718-54.3	Ext. EC: V021-2718-51.8	Ext. Acrolein: V021-2718-	Ext. PA: V021-2718-39.1		
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Analysis Date	6/29/2021
Expiration Date	7/25/21	7/1/21	7/16/21	7/16/21	Sequence loaded by	Robert Szot
		Ext. EC: V021-2718-51.8			Data processed by	Bridget Kelly
		100ppm			Batch ID	V3D7065
Internal Surrogate	V021-2718-25	7/1/21			Matrix	AQ
Internal Surrogate Concentration	50/500ppm				Approved By:	KANYAV
Expiration Date	7/9/21		Initial Calibration Method	M3D7065	Approved Date:	7/1/2021 3:23:31 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3D	166144	IB		NA			5			1	ok	
3D	166145	BFB		NA			5			2	ok	6/29/2021;
3D	166146	IC7065-0.2		NA		Initial Calibration	5			3	ok	1uL ABK, EC, AA/500mL DI H2O.
3D	166147	IC7065-0.5		NA		Initial Calibration	5			4	ok	1uL ABK, EC, AA/200mL DI H2O.
3D	166148	IC7065-1		NA		Initial Calibration	5			5	ok	1uL ABK, EC, AA/100mL DI H2O.
3D	166149	IC7065-2		NA		Initial Calibration	5			6	ok	2uL ABK, EC, AA/100mL DI H2O.
3D	166150	IC7065-4		NA		Initial Calibration	5			7	ok	4uL ABK, EC, AA/100mL DI H2O.
3D	166151	IC7065-8		NA		Initial Calibration	5			8	ok	8uL ABK, EC, AA/100mL DI H2O.
3D	166152	IC7065-20		NA		Initial Calibration	5			9	ok	20uL ABK, EC, AA/100mL DI H2O.
3D	166153	ICC7065-50		NA		Initial Calibration	5			10	ok	50uL ABK, EC, AA/100mL DI H2O.
3D	166154	IC7065-100		NA		Initial Calibration	5			11	ok	100uL ABK, EC, AA/100mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3D	166155	IC7065-200		NA		Initial Calibration	5			12	ok	200uL ABK, EC, AA/100mL DI H2O.
3D	166156	IB		NA			5			13	ok	
3D	166157	IB		NA			5			14	ok	
3D	166158	ICV7065-50		NA		Initial Calibration	5			15	ok	50uL Ext. ABK, EC, Acrolein/100mL DI H2O.
3D	166159	ICV7065-50		NA		Initial Calibration	5			16	ok	50uL Ext. Chlorodifluoromethane, PA/100mL DI H2O.
3D	166160	IB		NA			5			17	ok	
3D	166161	IB		NA			5			1	ok	
3D	166162	BFB2		NA			5			2	ok	
3D	166163	ICV7065-50		NA			5			3	ok	50 uL EXT EC / 100 mL

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(30mx0.25mmx1.4um)
Standards	ABK: V021-2718-47.21	EC: V021-2718-65.11	AA: V021-2718-70.10		Method	v8260D
Standard Concentration	100-10,000ppm	100ppm	100ppm		Init Calib Date	6/29/2021
Expiration Date	7/23/2021	7/14/2021	8/8/2021			
Internal Surrogate	V021-2718-57					
Internal Surrogate Concentration	50/500ppm				Analysis Date	7/14/2021
Expiration Date	7/29/2021				Sequence loaded by	Bridget Kelly
					Data processed by	janellec
					Batch ID	V3D7090
					Matrix	AQ
					Approved By:	MOHUI
pH paper lot#: 223120 exp. 8/15/23			Initial Calibration Method	M3D7065	Approved Date:	7/19/2021 10:24:42 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3d	166746	BFB/CC7065-50		NA			5			1	OK/OK	9:26pm 50 uL ABK EC AA / 100 mL
3d	166747	CC7065-1		NA			5			2	OK	1 uL ABK EC AA / 100 mL
3d	166748	BS		NA			5			3	OK	50 uL ABK EC AA / 100 mL
3d	166749	IB		NA			5			4	OK	
3d	166750	MB		NA			5			5	OK	
3d	166751	JD28016-8	7	NA	MS52217	V8260TCL42	5		1	6	OK	
3d	166752	JD28016-8MS	4	NA	MS52217	V8260TCL42	5		1	7	OK	20 uL ABK EC AA / 40 mL
3d	166753	JD28016-8MSD	5	NA	MS52217	V8260TCL42	5		1	8	OK	20 uL ABK EC AA / 40 mL
3d	166754	IB		NA			5			9	OK	
3d	166755	JD28016-9	1	NA	MS52217	V8260TCL42	5		1	10	OK	
3d	166756	JD28016-10	1	NA	MS52217	V8260TCL42	5		1	11	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3d	166757	JD28068-7	1	NA	MS52240	V8260PPTCL42+	5		1	12	OK	VMS+MPXYL, NAP, OXYL, TBA
3d	166758	JD28068-1	2	NA	MS52240	V8260PPTCL42+	5		1	13	OK	VMS+MPXYL, NAP, OXYL, TBA
3d	166759	JD28068-2	2	NA	MS52240	V8260PPTCL42+	5		1	14	OK	VMS+MPXYL, NAP, OXYL, TBA
3d	166760	JD28071-3	8	NA	MS52240	V8260PPTCL42+	5		1	15	OK	VMS+MPXYL, NAP, OXYL, TBA
3d	166761	JD28016-1	2	NA	MS52217	V8260TCL42	5		1	16	OK	
3d	166762	JD28016-2	1	NA	MS52217	V8260TCL42	5		1	17	OK	
3d	166763	JD28016-3	1	NA	MS52217	V8260TCL42	5		1	18	OK	
3d	166764	JD28016-4	1	NA	MS52217	V8260TCL42	5		1	19	OK	
3d	166765	JD28016-5	1	NA	MS52217	V8260TCL42	5		1	20	OK	
3d	166766	JD28016-6	1	NA	MS52217	V8260TCL42	5		1	21	OK	
3d	166767	JD28016-7	1	NA	MS52217	V8260TCL42	5		1	22	OK	
3d	166768	JD28068-6	2	NA	MS52240	V8260PPTCL42+	5		1	23	OK	VMS+MPXYL, NAP, OXYL, TBA
3d	166769	JD28071-2	3	NA	MS52240	V8260PPTCL42+	5		1	24	OK	VMS+MPXYL, NAP, OXYL, TBA
3d	166770	JD28071-1	3	NA	MS52240	V8260PPTCL42+	5		1	25	OK	VMS+MPXYL, NAP, OXYL, TBA. (15 Jul 2021; 7:23am)

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

EPT, Ithaca, NY

31401545.001/TASK 5

SGS Job Number: JD28713

Sampling Date: 07/21/21

Report to:

dave.rykaczewski@wsp.com

ATTN: Distribution5

Total number of pages in report: 31

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Sample Summary

WSP Environment & Energy

Job No: JD28713

EPT, Ithaca, NY
Project No: 31401545.001/TASK 5

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JD28713-1	07/21/21	10:00	NW	07/22/21	AQ	Water	BD072121
JD28713-2	07/21/21	11:55	NW	07/22/21	AQ	Water	BD24 SEEP 072121
JD28713-3	07/21/21	12:15	NW	07/22/21	AQ	Water	OPEN DITCH 001 072121
JD28713-4	07/21/21	12:30	NW	07/22/21	AQ	Water	BYPASS 072121
JD28713-5	07/21/21	12:50	NW	07/22/21	AQ	Water	WB SEEPS 072121
JD28713-6	07/21/21	13:15	NW	07/22/21	AQ	Water	OUTFALL 001 072121
JD28713-7	07/21/21	13:35	NW	07/22/21	AQ	Water	WOODEN SLUICE 072121
JD28713-8	07/21/21	13:55	NW	07/22/21	AQ	Water	BW SEEP 072121
JD28713-8D	07/21/21	13:55	NW	07/22/21	AQ	Water Dup/MSD	BW SEEP 072121-MSD
JD28713-8S	07/21/21	13:55	NW	07/22/21	AQ	Water Matrix Spike	BW SEEP 072121-MS
JD28713-9	07/21/21	15:00	NW	07/22/21	AQ	Trip Blank Water	TRIP BLANK
JD28713-10	07/21/21	15:00	NW	07/22/21	AQ	Equipment Blank	EQ BLANK 072121

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: WSP Environment & Energy **Job No** JD28713

Site: EPT, Ithaca, NY **Report Date** 7/30/2021 4:47:30 PM

On 07/22/2021, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD28713 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2A9219

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD28713-8MS, JD28713-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- V2A9219-BSD for 2-Butanone (MEK): Outside in house control limits.
- JD28713-5 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD28713-8 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD28713-8 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD28713-5 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- V2A9219-BSD for Acetone: Outside in house control limits.
- V2A9219-BSD for 2-Hexanone: Outside in house control limits.

Matrix: AQ **Batch ID:** V2D8597

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD28713-8MS, JD28713-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JD28713-9 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-3 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-10 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-10 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-1 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-1 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-2 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-9 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-9 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-7 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-6 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-6 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-2 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-6 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2D8597

- JD28713-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-7 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-7 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-4 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-4 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-4 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD28713-3 for Vinyl chloride: Associated CCV outside of control limits high, sample was ND.
- JD28713-10 for Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD28713
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 07/21/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD28713-1	**BD072121**					
cis-1,2-Dichloroethene		1.5	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		10.4	1.0	0.53	ug/l	SW846 8260D
JD28713-2	**BD24 SEEP 072121**					
cis-1,2-Dichloroethene		1.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		9.8	1.0	0.53	ug/l	SW846 8260D
JD28713-3	**OPEN DITCH 001 072121**					
Chloroform		0.64 J	1.0	0.50	ug/l	SW846 8260D
JD28713-4	**BYPASS 072121**					
cis-1,2-Dichloroethene		0.56 J	1.0	0.51	ug/l	SW846 8260D
JD28713-5	**WB SEEPS 072121**					
cis-1,2-Dichloroethene		159	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene		1.7	1.0	0.54	ug/l	SW846 8260D
Trichloroethene		20.3	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		21.2	1.0	0.79	ug/l	SW846 8260D
JD28713-6	**OUTFALL 001 072121**					
Bromodichloromethane		1.9	1.0	0.45	ug/l	SW846 8260D
Chloroform		11.1	1.0	0.50	ug/l	SW846 8260D
JD28713-7	**WOODEN SLUICE 072121**					
Bromodichloromethane		0.86 J	1.0	0.45	ug/l	SW846 8260D
Chloroform		5.5	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		4.8	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		2.1	1.0	0.53	ug/l	SW846 8260D
JD28713-8	**BW SEEP 072121**					
cis-1,2-Dichloroethene		3.4	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		3.0	1.0	0.79	ug/l	SW846 8260D
JD28713-9	**TRIP BLANK**					

No hits reported in this sample.

Summary of Hits

Job Number: JD28713
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 07/21/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

JD28713-10 EQ BLANK 072121

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD072121		
Lab Sample ID:	JD28713-1	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197855.D	1	07/30/21 04:45	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD072121		
Lab Sample ID:	JD28713-1	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	10.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 072121		
Lab Sample ID:	JD28713-2	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197856.D	1	07/30/21 05:14	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 072121		
Lab Sample ID:	JD28713-2	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	9.8	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	104%		80-121%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 072121		
Lab Sample ID:	JD28713-3	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197857.D	1	07/30/21 05:43	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.64	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 072121		
Lab Sample ID:	JD28713-3	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 072121		
Lab Sample ID:	JD28713-4	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197858.D	1	07/30/21 06:12	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.56	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 072121		
Lab Sample ID:	JD28713-4	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	104%		80-121%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 072121		
Lab Sample ID:	JD28713-5	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A211880.D	1	07/30/21 13:31	BK	n/a	n/a	V2A9219
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	159	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.7	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 072121		
Lab Sample ID:	JD28713-5	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	20.3	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	21.2	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		85-118%
17060-07-0	1,2-Dichloroethane-D4	95%		80-121%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 072121		
Lab Sample ID:	JD28713-6	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197861.D	1	07/30/21 07:40	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.9	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	11.1	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 072121		
Lab Sample ID:	JD28713-6	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 072121		
Lab Sample ID:	JD28713-7	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197860.D	1	07/30/21 07:11	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	0.86	1.0	0.45	ug/l	J
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	5.5	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.8	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 072121		
Lab Sample ID:	JD28713-7	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	2.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		85-118%
17060-07-0	1,2-Dichloroethane-D4	98%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BW SEEP 072121		
Lab Sample ID:	JD28713-8	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A211879.D	1	07/30/21 13:03	BK	n/a	n/a	V2A9219
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BW SEEP 072121		
Lab Sample ID:	JD28713-8	**Date Sampled:**	07/21/21
Matrix:	AQ - Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	3.0	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		85-118%
17060-07-0	1,2-Dichloroethane-D4	95%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

(a) Associated CCV outside of control limits low.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD28713-9	**Date Sampled:**	07/21/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197849.D	1	07/30/21 01:50	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD28713-9	**Date Sampled:**	07/21/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		85-118%
17060-07-0	1,2-Dichloroethane-D4	104%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQ BLANK 072121		
Lab Sample ID:	JD28713-10	**Date Sampled:**	07/21/21
Matrix:	AQ - Equipment Blank	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D197850.D	1	07/30/21 02:20	EH	n/a	n/a	V2D8597
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQ BLANK 072121		
Lab Sample ID:	JD28713-10	**Date Sampled:**	07/21/21
Matrix:	AQ - Equipment Blank	**Date Received:**	07/22/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride [a]	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		85-118%
17060-07-0	1,2-Dichloroethane-D4	104%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

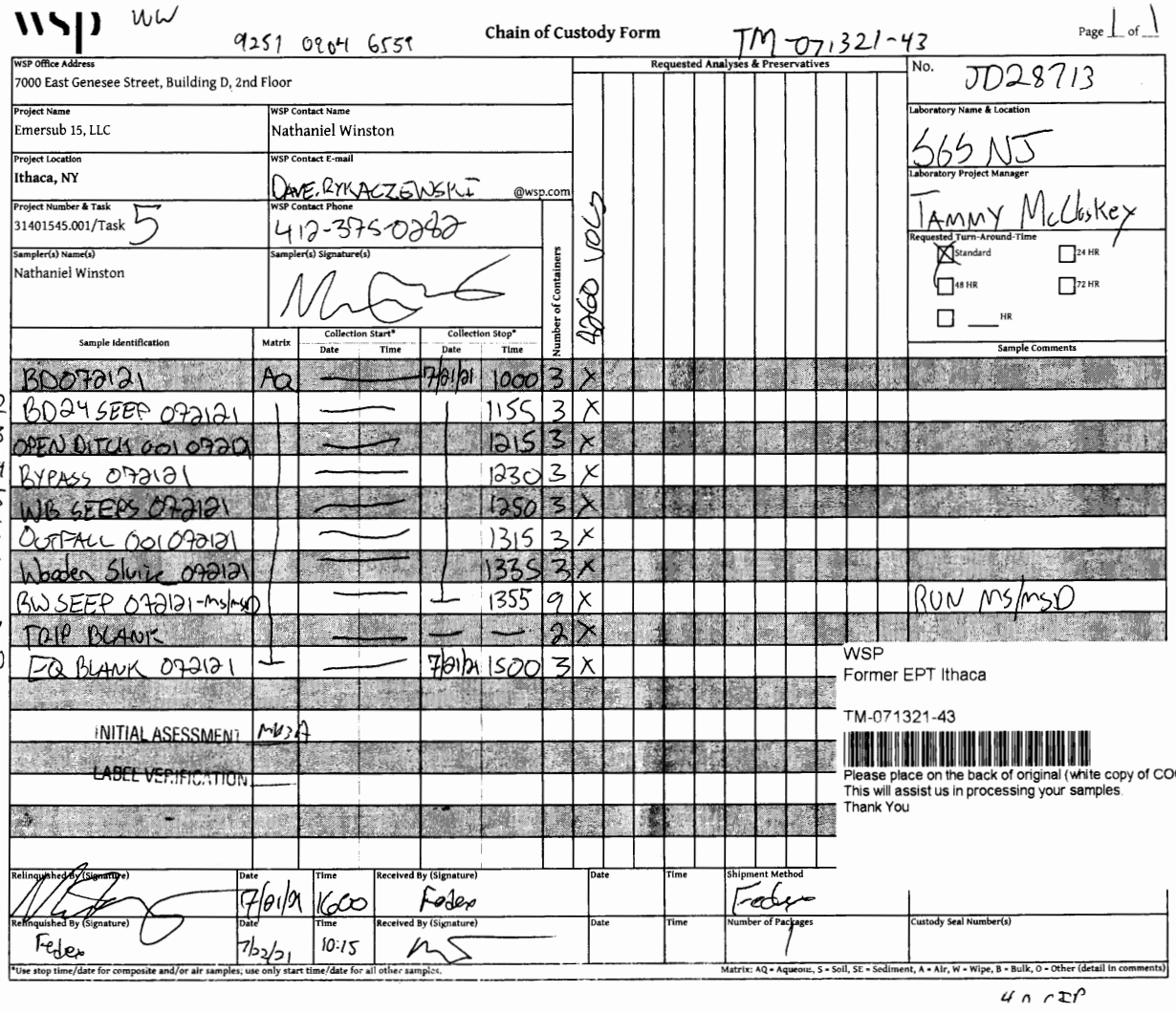
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



wsp WW 9251 0804 6559

Chain of Custody Form TM-071321-43

Page 1 of 1

WSP Office Address	7000 East Genesee Street, Building D, 2nd Floor
Project Name	Emersub 15, LLC
WSP Contact Name	Nathaniel Winston
Project Location	Ithaca, NY
WSP Contact E-mail	DAVE.RYKACZEWSKI@wsp.com
Project Number & Task	31401545.001/Task 5
WSP Contact Phone	412-375-0282
Sampler(s) Name(s)	Nathaniel Winston
Sampler(s) Signature(s)	
Requested Analyses & Preservatives	4060 VOCs
No.	JD28713
Laboratory Name & Location	565 NJ
Laboratory Project Manager	TAMMY McCloskey
Requested Turn-Around-Time	☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	Sample Comments
1	BD072121	AQ			7/01/21	1000	3 X	VL165
2	BD24 SEEP 072121					1155	3 X	
3	OPEN DITCH 001 072121					1215	3 X	
4	BYPASS 072121					1230	3 X	
5	WB SEEPS 072121					1250	3 X	
6	OUTFALL 001 072121					1315	3 X	
7	Wooden Shack 072121					1335	3 X	
8	BW SEEP 072121-MS/MSD					1355	9 X	RUN MS/MSD
9	TRIP BLANK						2 X	
10	EQ BLANK 072121				7/01/21	1500	3 X	
	INITIAL ASESSMENT	MB						
	LABEL VERIFICATION							

WSP
Former EPT Ithaca

TM-071321-43

Please place on the back of original (white copy of COC)
This will assist us in processing your samples.
Thank You

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method
	7/01/21	1600	Fedex			Fedex
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages / Custody Seal Number(s)
Fedex	7/02/21	10:15				

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

4 n rEP

JD28713: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD28713 **Client:** WSP **Project:** FORMER EPT ITHACA

Date / Time Received: 7/22/2021 10:15:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.0);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD28713: Chain of Custody
Page 2 of 2

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

EPT, Ithaca, NY

31401545.001/Task

SGS Job Number: JD29301

Sampling Date: 08/02/21

Report to:

WSP
13530 DULLES TECHNOLOGY DRIVE Suite 300
Herndon, VA 20171
Nathaniel.Winston@wsp.com

ATTN: Nathaniel Winston

Total number of pages in report: 266

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5 6 7

Table of Contents

SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD29301

EPT, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JD29301-1	08/02/21	13:25	NW	08/03/21	AQ	Water	BD24SEEP080221
JD29301-2	08/02/21	11:00	NW	08/03/21	AQ	Water	BD080221
JD29301-3	08/02/21	13:55	NW	08/03/21	AQ	Water	OPEN DITCH 001 080221
JD29301-4	08/02/21	14:15	NW	08/03/21	AQ	Water	BYPASS 080221
JD29301-5	08/02/21	14:35	NW	08/03/21	AQ	Water	WB SEEPS 080221
JD29301-6	08/02/21	14:55	NW	08/03/21	AQ	Water	OUTFALL 001 080221
JD29301-7	08/02/21	15:10	NW	08/03/21	AQ	Water	WOODEN SLUICE 080221
JD29301-8	08/02/21	15:45	NW	08/03/21	AQ	Water	RW SEEP 080221
JD29301-8D	08/02/21	15:45	NW	08/03/21	AQ	Water Dup/MSD	RW SEEP 080221-MSD
JD29301-8S	08/02/21	15:45	NW	08/03/21	AQ	Water Matrix Spike	RW SEEP 080221-MS
JD29301-9	08/02/21	16:30	NW	08/03/21	AQ	Equipment Blank	EQ BLANK
JD29301-10	08/02/21	16:30	NW	08/03/21	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD29301
Site:	EPT, Ithaca, NY	**Report Date**	8/10/2021 2:08:54 PM

On 08/03/2021, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD29301 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V1A9190

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD29301-8MS, JD29301-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** V3B7507

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD29339-1MS, JD29339-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,1,2-Trichloroethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, Bromoform, Carbon tetrachloride, Chlorobenzene, Dibromochloromethane, Methylene chloride are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, Bromoform, Carbon tetrachloride, Chlorobenzene, Dibromochloromethane, Methylene chloride are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Trichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JD29301-7 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JD29301-7 for Dichlorodifluoromethane: Associated CCV outside of control limits low.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD29301
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 08/02/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD29301-1	**BD24SEEP080221**					
cis-1,2-Dichloroethene		1.9	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		9.4	1.0	0.53	ug/l	SW846 8260D
JD29301-2	**BD080221**					
cis-1,2-Dichloroethene		1.9	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		9.3	1.0	0.53	ug/l	SW846 8260D
JD29301-3	**OPEN DITCH 001 080221**					
Chloroform		0.80 J	1.0	0.50	ug/l	SW846 8260D
JD29301-4	**BYPASS 080221**					
1,1-Dichloroethane		0.60 J	1.0	0.57	ug/l	SW846 8260D
cis-1,2-Dichloroethene		0.88 J	1.0	0.51	ug/l	SW846 8260D
JD29301-5	**WB SEEPS 080221**					
cis-1,2-Dichloroethene		123	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene		1.3	1.0	0.54	ug/l	SW846 8260D
Trichloroethene		14.0	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		20.7	1.0	0.79	ug/l	SW846 8260D
JD29301-6	**OUTFALL 001 080221**					
Bromodichloromethane		1.9	1.0	0.45	ug/l	SW846 8260D
Chloroform		13.1	1.0	0.50	ug/l	SW846 8260D
JD29301-7	**WOODEN SLUICE 080221**					
Bromodichloromethane		2.0	1.0	0.45	ug/l	SW846 8260D
Chloroform		11.8	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		6.3	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		3.7	1.0	0.53	ug/l	SW846 8260D
JD29301-8	**RW SEEP 080221**					
cis-1,2-Dichloroethene		2.7	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		2.5	1.0	0.79	ug/l	SW846 8260D

Summary of Hits

Job Number: JD29301
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 08/02/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD29301-9	**EQ BLANK**					
Acetone		5.1 J	10	3.1	ug/l	SW846 8260D
JD29301-10	**TRIP BLANK**					

No hits reported in this sample.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	BD24SEEP080221		
Lab Sample ID:	JD29301-1	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212804.D	1	08/07/21 05:34	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.9	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24SEEP080221		
Lab Sample ID:	JD29301-1	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	9.4	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	105%		80-121%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BD080221		
Lab Sample ID:	JD29301-2	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212805.D	1	08/07/21 05:59	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.9	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD080221		
Lab Sample ID:	JD29301-2	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	9.3	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		85-118%
17060-07-0	1,2-Dichloroethane-D4	105%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	OPEN DITCH 001 080221		
Lab Sample ID:	JD29301-3	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212806.D	1	08/07/21 06:24	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.80	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 080221		
Lab Sample ID:	JD29301-3	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	105%		80-121%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BYPASS 080221		
Lab Sample ID:	JD29301-4	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212807.D	1	08/07/21 06:49	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	0.60	1.0	0.57	ug/l	J
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.88	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 080221		
Lab Sample ID:	JD29301-4	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WB SEEPS 080221		
Lab Sample ID:	JD29301-5	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212808.D	1	08/07/21 07:14	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	123	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.3	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 080221		
Lab Sample ID:	JD29301-5	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	14.0	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	20.7	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		85-118%
17060-07-0	1,2-Dichloroethane-D4	102%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: OUTFALL 001 080221
Lab Sample ID: JD29301-6
Matrix: AQ - Water
Method: SW846 8260D
Project: EPT, Ithaca, NY

Date Sampled: 08/02/21
Date Received: 08/03/21
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212809.D	1	08/07/21 07:39	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.9	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	13.1	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: OUTFALL 001 080221
Lab Sample ID: JD29301-6
Matrix: AQ - Water
Method: SW846 8260D
Project: EPT, Ithaca, NY

Date Sampled: 08/02/21
Date Received: 08/03/21
Percent Solids: n/a

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WOODEN SLUICE 080221		
Lab Sample ID:	JD29301-7	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B166504.D	1	08/09/21 20:32	JS	n/a	n/a	V3B7507
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	2.0	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	11.8	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	6.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 080221		
Lab Sample ID:	JD29301-7	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	3.7	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	84%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	RW SEEP 080221		
Lab Sample ID:	JD29301-8	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212794.D	1	08/07/21 01:24	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.7	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEP 080221		
Lab Sample ID:	JD29301-8	**Date Sampled:**	08/02/21
Matrix:	AQ - Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	2.5	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		85-118%
17060-07-0	1,2-Dichloroethane-D4	104%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EQ BLANK		
Lab Sample ID:	JD29301-9	**Date Sampled:**	08/02/21
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212788.D	1	08/06/21 22:54	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.1	10	3.1	ug/l	J
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQ BLANK		
Lab Sample ID:	JD29301-9	**Date Sampled:**	08/02/21
Matrix:	AQ - Equipment Blank	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		85-118%
17060-07-0	1,2-Dichloroethane-D4	101%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD29301-10	**Date Sampled:**	08/02/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A212789.D	1	08/06/21 23:19	ED	n/a	n/a	V1A9190
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD29301-10	**Date Sampled:**	08/02/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/03/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		85-118%
17060-07-0	1,2-Dichloroethane-D4	103%		80-121%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

wsp WW, EB, TB

2821 1317 2283

Chain of Custody Form

TM-072221-146

Page 1 of 1

WSP Office Address: 7000 East Genesee Street, Building D, 2nd Floor	
Project Name: Emersub 15, LLC	WSP Contact Name: Nathaniel Winston
Project Location: Ithaca, NY	WSP Contact E-mail: DAVE.BYKAZEWSKI@wsp.com
Project Number & Task: 31401545.001/Task	WSP Contact Phone: 412-375-0282
Sampler(s) Name(s): Nathaniel Winston	Sampler(s) Signature(s):

Requested Analyses & Preservatives: 8260 VOCs, TCL+8

No. JD29301

Laboratory Name & Location: SGS, NJ

Laboratory Project Manager: TAMMY McCloskey

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers		Sample Comments
1	BD045EEP080221	AQ			8/2/21	1325	3	X	Flow: 2.31 gpm
2	BD040221					1100	3	X	
3	OPEN DITCH 001 080221					1355	3	X	Flow: 13.8 gpm
4	BYPASS 080221					1415	3	X	Flow: 20.4 gpm
5	WB SEEPS 080221					1435	3	X	Flow: <0.25 gpm
6	OUTFALL 001 080221					1455	3	X	Flow: 1.75 gpm
7	Wooden Sluice 080221					1510	3	X	Flow: 16.7 gpm
8	BW SEEP 080221 MS/MSD					1545	9	X	RUN MS/MSD, Flow: 0.54 gpm
9	EQ BLANK					1630	3	X	
10	TRIP BLANK						2	X	

V22

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
			FedEx			FedEx	
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
FedEx	8/3/21	1000					

*Use stop time/date for composite and/or air samples; use daily start time/date for all other samples

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

LABEL VERIFICATION ___ INITIAL ASSESMENT 2 BOX

once 2,8°C IP

IR-5

JD29301: Chain of Custody

Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD29301 **Client:** WSP **Project:** EPT, ITHACA, NY

Date / Time Received: 8/3/2021 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (2.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD29301: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD29301

EPT, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD29301-1	Collected: 02-AUG-21 13:25 By: NW			Received: 03-AUG-21 By: MK		
BD24SEEP080221						
JD29301-1	SW846 8260D	07-AUG-21 05:34	ED			V8260TCL42
JD29301-2	Collected: 02-AUG-21 11:00 By: NW			Received: 03-AUG-21 By: MK		
BD080221						
JD29301-2	SW846 8260D	07-AUG-21 05:59	ED			V8260TCL42
JD29301-3	Collected: 02-AUG-21 13:55 By: NW			Received: 03-AUG-21 By: MK		
OPEN DITCH 001 080221						
JD29301-3	SW846 8260D	07-AUG-21 06:24	ED			V8260TCL42
JD29301-4	Collected: 02-AUG-21 14:15 By: NW			Received: 03-AUG-21 By: MK		
BYPASS 080221						
JD29301-4	SW846 8260D	07-AUG-21 06:49	ED			V8260TCL42
JD29301-5	Collected: 02-AUG-21 14:35 By: NW			Received: 03-AUG-21 By: MK		
WB SEEPS 080221						
JD29301-5	SW846 8260D	07-AUG-21 07:14	ED			V8260TCL42
JD29301-6	Collected: 02-AUG-21 14:55 By: NW			Received: 03-AUG-21 By: MK		
OUTFALL 001 080221						
JD29301-6	SW846 8260D	07-AUG-21 07:39	ED			V8260TCL42
JD29301-7	Collected: 02-AUG-21 15:10 By: NW			Received: 03-AUG-21 By: MK		
WOODEN SLUICE 080221						
JD29301-7	SW846 8260D	09-AUG-21 20:32	JS			V8260TCL42
JD29301-8	Collected: 02-AUG-21 15:45 By: NW			Received: 03-AUG-21 By: MK		
RW SEEP 080221						
JD29301-8	SW846 8260D	07-AUG-21 01:24	ED			V8260TCL42

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD29301

EPT, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD29301-9	Collected: 02-AUG-21 16:30 By: NW		Received: 03-AUG-21 By: MK			
EQ BLANK						
JD29301-9	SW846 8260D	06-AUG-21 22:54	ED			V8260TCL42
JD29301-10	Collected: 02-AUG-21 16:30 By: NW		Received: 03-AUG-21 By: MK			
TRIP BLANK						
JD29301-10	SW846 8260D	06-AUG-21 23:19	ED			V8260TCL42

SGS Internal Chain of Custody

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Received: 08/03/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD29301-1.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-1.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-1.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-1.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-2.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-2.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-2.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-2.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-3.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-3.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-3.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-3.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-4.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-4.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-4.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-4.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-5.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-5.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-5.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-5.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-6.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-6.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-6.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-6.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-7.1	Secured Storage	Jonathan Santos	08/09/21 16:25	Retrieve from Storage
JD29301-7.1	Jonathan Santos	GCMS3B	08/09/21 16:26	Load on Instrument
JD29301-8.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-8.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-8.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-8.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-8.2	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-8.2	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-8.2	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-8.2	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-8.3	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Received: 08/03/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD29301-8.3	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-8.3	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-8.3	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-9.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-9.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-9.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-9.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage
JD29301-10.1	Secured Storage	Edward Durner	08/06/21 14:48	Retrieve from Storage
JD29301-10.1	Edward Durner	GCMS1A	08/06/21 14:48	Load on Instrument
JD29301-10.1	GCMS1A	Edward Durner	08/09/21 10:45	Unload from Instrument
JD29301-10.1	Edward Durner	Secured Storage	08/09/21 10:45	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A9190-MB	1A212787.D	1	08/06/21	ED	n/a	n/a	V1A9190

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-1, JD29301-2, JD29301-3, JD29301-4, JD29301-5, JD29301-6, JD29301-8, JD29301-9, JD29301-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A9190-MB	1A212787.D	1	08/06/21	ED	n/a	n/a	V1A9190

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-1, JD29301-2, JD29301-3, JD29301-4, JD29301-5, JD29301-6, JD29301-8, JD29301-9, JD29301-10

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	85-118%
17060-07-0	1,2-Dichloroethane-D4	104%	80-121%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	103%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7507-MB	3B166489.D	1	08/09/21	JS	n/a	n/a	V3B7507

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7507-MB	3B166489.D	1	08/09/21	JS	n/a	n/a	V3B7507

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-7

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	85-118%
17060-07-0	1,2-Dichloroethane-D4	94%	80-121%
2037-26-5	Toluene-D8	94%	80-120%
460-00-4	4-Bromofluorobenzene	85%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A9190-BS	1A212785.D	1	08/06/21	ED	n/a	n/a	V1A9190

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-1, JD29301-2, JD29301-3, JD29301-4, JD29301-5, JD29301-6, JD29301-8, JD29301-9, JD29301-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	237	119	63-137
71-43-2	Benzene	50	49.3	99	78-117
75-27-4	Bromodichloromethane	50	48.0	96	83-123
75-25-2	Bromoform	50	43.2	86	80-140
74-83-9	Bromomethane	50	58.2	116	26-167
78-93-3	2-Butanone (MEK)	200	216	108	73-135
75-15-0	Carbon disulfide	50	48.1	96	60-131
56-23-5	Carbon tetrachloride	50	45.8	92	75-127
108-90-7	Chlorobenzene	50	45.2	90	83-115
75-00-3	Chloroethane	50	54.4	109	61-135
67-66-3	Chloroform	50	48.4	97	76-118
74-87-3	Chloromethane	50	48.4	97	46-144
110-82-7	Cyclohexane	50	47.9	96	67-128
96-12-8	1,2-Dibromo-3-chloropropane	50	41.8	84	75-135
124-48-1	Dibromochloromethane	50	43.7	87	84-128
106-93-4	1,2-Dibromoethane	50	46.1	92	82-129
95-50-1	1,2-Dichlorobenzene	50	46.6	93	85-117
541-73-1	1,3-Dichlorobenzene	50	45.2	90	83-116
106-46-7	1,4-Dichlorobenzene	50	44.7	89	82-115
75-71-8	Dichlorodifluoromethane	50	42.6	85	49-153
75-34-3	1,1-Dichloroethane	50	53.4	107	75-122
107-06-2	1,2-Dichloroethane	50	47.8	96	74-116
75-35-4	1,1-Dichloroethene	50	55.6	111	68-129
156-59-2	cis-1,2-Dichloroethene	50	51.6	103	78-120
156-60-5	trans-1,2-Dichloroethene	50	48.6	97	74-125
78-87-5	1,2-Dichloropropane	50	51.7	103	80-120
10061-01-5	cis-1,3-Dichloropropene	50	48.6	97	84-123
10061-02-6	trans-1,3-Dichloropropene	50	44.6	89	84-124
100-41-4	Ethylbenzene	50	46.6	93	80-115
76-13-1	Freon 113	50	52.1	104	66-136
591-78-6	2-Hexanone	200	212	106	74-132
98-82-8	Isopropylbenzene	50	46.6	93	79-120
79-20-9	Methyl Acetate	50	48.8	98	65-133
108-87-2	Methylcyclohexane	50	50.3	101	67-136
1634-04-4	Methyl Tert Butyl Ether	50	49.9	100	77-124
108-10-1	4-Methyl-2-pentanone(MIBK)	200	221	111	77-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A9190-BS	1A212785.D	1	08/06/21	ED	n/a	n/a	V1A9190

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-1, JD29301-2, JD29301-3, JD29301-4, JD29301-5, JD29301-6, JD29301-8, JD29301-9, JD29301-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	48.1	96	74-125
100-42-5	Styrene	50	47.9	96	83-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.2	98	78-122
127-18-4	Tetrachloroethene	50	43.8	88	75-125
108-88-3	Toluene	50	46.4	93	80-115
120-82-1	1,2,4-Trichlorobenzene	50	42.6	85	77-137
71-55-6	1,1,1-Trichloroethane	50	47.5	95	77-124
79-00-5	1,1,2-Trichloroethane	50	50.1	100	83-118
79-01-6	Trichloroethene	50	49.6	99	80-123
75-69-4	Trichlorofluoromethane	50	54.8	110	71-134
75-01-4	Vinyl chloride	50	52.4	105	56-138
1330-20-7	Xylene (total)	150	139	93	81-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	85-118%
17060-07-0	1,2-Dichloroethane-D4	104%	80-121%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7507-BS	3B166487.D	1	08/09/21	JS	n/a	n/a	V3B7507

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	165	83	63-137
71-43-2	Benzene	50	53.6	107	78-117
75-27-4	Bromodichloromethane	50	55.1	110	83-123
75-25-2	Bromoform	50	66.9	134	80-140
74-83-9	Bromomethane	50	56.5	113	26-167
78-93-3	2-Butanone (MEK)	200	204	102	73-135
75-15-0	Carbon disulfide	50	53.9	108	60-131
56-23-5	Carbon tetrachloride	50	62.6	125	75-127
108-90-7	Chlorobenzene	50	57.4	115	83-115
75-00-3	Chloroethane	50	52.3	105	61-135
67-66-3	Chloroform	50	50.2	100	76-118
74-87-3	Chloromethane	50	38.1	76	46-144
110-82-7	Cyclohexane	50	55.1	110	67-128
96-12-8	1,2-Dibromo-3-chloropropane	50	57.0	114	75-135
124-48-1	Dibromochloromethane	50	59.9	120	84-128
106-93-4	1,2-Dibromoethane	50	52.5	105	82-129
95-50-1	1,2-Dichlorobenzene	50	57.1	114	85-117
541-73-1	1,3-Dichlorobenzene	50	56.0	112	83-116
106-46-7	1,4-Dichlorobenzene	50	54.1	108	82-115
75-71-8	Dichlorodifluoromethane	50	35.3	71	49-153
75-34-3	1,1-Dichloroethane	50	55.9	112	75-122
107-06-2	1,2-Dichloroethane	50	50.4	101	74-116
75-35-4	1,1-Dichloroethene	50	59.5	119	68-129
156-59-2	cis-1,2-Dichloroethene	50	53.8	108	78-120
156-60-5	trans-1,2-Dichloroethene	50	54.2	108	74-125
78-87-5	1,2-Dichloropropane	50	53.4	107	80-120
10061-01-5	cis-1,3-Dichloropropene	50	56.5	113	84-123
10061-02-6	trans-1,3-Dichloropropene	50	55.1	110	84-124
100-41-4	Ethylbenzene	50	52.7	105	80-115
76-13-1	Freon 113	50	62.7	125	66-136
591-78-6	2-Hexanone	200	206	103	74-132
98-82-8	Isopropylbenzene	50	57.8	116	79-120
79-20-9	Methyl Acetate	50	44.5	89	65-133
108-87-2	Methylcyclohexane	50	53.9	108	67-136
1634-04-4	Methyl Tert Butyl Ether	50	49.3	99	77-124
108-10-1	4-Methyl-2-pentanone(MIBK)	200	228	114	77-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B7507-BS	3B166487.D	1	08/09/21	JS	n/a	n/a	V3B7507

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	59.1	118	74-125
100-42-5	Styrene	50	56.3	113	83-122
79-34-5	1,1,2,2-Tetrachloroethane	50	56.1	112	78-122
127-18-4	Tetrachloroethene	50	55.3	111	75-125
108-88-3	Toluene	50	54.9	110	80-115
120-82-1	1,2,4-Trichlorobenzene	50	58.3	117	77-137
71-55-6	1,1,1-Trichloroethane	50	57.1	114	77-124
79-00-5	1,1,2-Trichloroethane	50	55.8	112	83-118
79-01-6	Trichloroethene	50	52.6	105	80-123
75-69-4	Trichlorofluoromethane	50	53.6	107	71-134
75-01-4	Vinyl chloride	50	44.2	88	56-138
1330-20-7	Xylene (total)	150	169	113	81-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	85-118%
17060-07-0	1,2-Dichloroethane-D4	87%	80-121%
2037-26-5	Toluene-D8	94%	80-120%
460-00-4	4-Bromofluorobenzene	87%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD29301-8MS	1A212795.D	1	08/07/21	ED	n/a	n/a	V1A9190
JD29301-8MSD	1A212796.D	1	08/07/21	ED	n/a	n/a	V1A9190
JD29301-8	1A212794.D	1	08/07/21	ED	n/a	n/a	V1A9190

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-1, JD29301-2, JD29301-3, JD29301-4, JD29301-5, JD29301-6, JD29301-8, JD29301-9, JD29301-10

CAS No.	Compound	JD29301-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	214	107	200	228	114	6	52-133/18
71-43-2	Benzene	ND		50	49.7	99	50	51.6	103	4	55-129/11
75-27-4	Bromodichloromethane	ND		50	47.2	94	50	49.9	100	6	74-123/11
75-25-2	Bromoform	ND		50	41.7	83	50	42.9	86	3	69-135/12
74-83-9	Bromomethane	ND		50	61.8	124	50	59.6	119	4	11-167/43
78-93-3	2-Butanone (MEK)	ND		200	198	99	200	216	108	9	64-131/15
75-15-0	Carbon disulfide	ND		50	50.1	100	50	51.8	104	3	54-137/15
56-23-5	Carbon tetrachloride	ND		50	47.1	94	50	49.4	99	5	68-132/11
108-90-7	Chlorobenzene	ND		50	45.6	91	50	47.3	95	4	71-119/10
75-00-3	Chloroethane	ND		50	58.6	117	50	57.1	114	3	50-146/18
67-66-3	Chloroform	ND		50	46.6	93	50	48.6	97	4	67-120/11
74-87-3	Chloromethane	ND		50	52.7	105	50	53.7	107	2	42-146/17
110-82-7	Cyclohexane	ND		50	52.8	106	50	52.1	104	1	56-147/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	42.3	85	50	45.3	91	7	65-130/15
124-48-1	Dibromochloromethane	ND		50	42.9	86	50	44.8	90	4	74-125/10
106-93-4	1,2-Dibromoethane	ND		50	44.4	89	50	46.5	93	5	74-125/9
95-50-1	1,2-Dichlorobenzene	ND		50	45.4	91	50	47.7	95	5	73-117/10
541-73-1	1,3-Dichlorobenzene	ND		50	45.3	91	50	46.7	93	3	73-117/10
106-46-7	1,4-Dichlorobenzene	ND		50	44.8	90	50	46.2	92	3	70-117/10
75-71-8	Dichlorodifluoromethane	ND		50	48.6	97	50	47.6	95	2	46-169/17
75-34-3	1,1-Dichloroethane	ND		50	53.7	107	50	55.9	112	4	66-124/13
107-06-2	1,2-Dichloroethane	ND		50	46.6	93	50	48.7	97	4	66-115/10
75-35-4	1,1-Dichloroethene	ND		50	56.9	114	50	58.7	117	3	60-136/15
156-59-2	cis-1,2-Dichloroethene	2.7		50	53.8	102	50	55.9	106	4	55-133/12
156-60-5	trans-1,2-Dichloroethene	ND		50	49.9	100	50	52.4	105	5	67-127/13
78-87-5	1,2-Dichloropropane	ND		50	52.3	105	50	54.3	109	4	72-120/11
10061-01-5	cis-1,3-Dichloropropene	ND		50	47.1	94	50	50.3	101	7	75-123/12
10061-02-6	trans-1,3-Dichloropropene	ND		50	42.5	85	50	44.6	89	5	73-122/11
100-41-4	Ethylbenzene	ND		50	47.0	94	50	49.2	98	5	44-136/10
76-13-1	Freon 113	ND		50	52.8	106	50	54.0	108	2	61-148/15
591-78-6	2-Hexanone	ND		200	213	107	200	220	110	3	64-129/13
98-82-8	Isopropylbenzene	ND		50	46.9	94	50	49.2	98	5	71-122/11
79-20-9	Methyl Acetate	ND		50	42.6	85	50	47.5	95	11	55-127/17
108-87-2	Methylcyclohexane	ND		50	51.9	104	50	55.0	110	6	58-148/13
1634-04-4	Methyl Tert Butyl Ether	ND		50	47.7	95	50	50.0	100	5	64-122/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	220	110	200	238	119	8	68-128/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD29301-8MS	1A212795.D	1	08/07/21	ED	n/a	n/a	V1A9190
JD29301-8MSD	1A212796.D	1	08/07/21	ED	n/a	n/a	V1A9190
JD29301-8	1A212794.D	1	08/07/21	ED	n/a	n/a	V1A9190

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-1, JD29301-2, JD29301-3, JD29301-4, JD29301-5, JD29301-6, JD29301-8, JD29301-9, JD29301-10

CAS No.	Compound	JD29301-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		50	47.6	95	50	49.0	98	3	65-126/13
100-42-5	Styrene	ND		50	47.7	95	50	49.3	99	3	73-124/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	49.2	98	50	51.9	104	5	68-120/15
127-18-4	Tetrachloroethene	ND		50	44.7	89	50	45.8	92	2	61-134/11
108-88-3	Toluene	ND		50	46.9	94	50	48.8	98	4	54-130/11
120-82-1	1,2,4-Trichlorobenzene	ND		50	43.8	88	50	46.0	92	5	67-134/14
71-55-6	1,1,1-Trichloroethane	ND		50	48.2	96	50	50.6	101	5	66-130/12
79-00-5	1,1,2-Trichloroethane	ND		50	48.9	98	50	51.1	102	4	73-117/11
79-01-6	Trichloroethene	ND		50	49.9	100	50	52.1	104	4	56-139/11
75-69-4	Trichlorofluoromethane	ND		50	61.1	122	50	58.9	118	4	63-150/16
75-01-4	Vinyl chloride	2.5		50	60.5	116	50	59.5	114	2	48-148/17
1330-20-7	Xylene (total)	ND		150	139	93	150	146	97	5	46-138/10

CAS No.	Surrogate Recoveries	MS	MSD	JD29301-8	Limits
1868-53-7	Dibromofluoromethane	102%	102%	103%	85-118%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	104%	80-121%
2037-26-5	Toluene-D8	98%	98%	101%	80-120%
460-00-4	4-Bromofluorobenzene	101%	101%	101%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD29339-1MS	3B166500.D	20	08/09/21	JS	n/a	n/a	V3B7507
JD29339-1MSD	3B166501.D	20	08/09/21	JS	n/a	n/a	V3B7507
JD29339-1	3B166499.D	20	08/09/21	JS	n/a	n/a	V3B7507

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-7

CAS No.	Compound	JD29339-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		4000	3150	79	4000	3320	83	5	52-133/18
71-43-2	Benzene	ND		1000	1130	113	1000	1110	111	2	55-129/11
75-27-4	Bromodichloromethane	ND		1000	1230	123	1000	1210	121	2	74-123/11
75-25-2	Bromoform	ND		1000	1430	143* [a]	1000	1360	136* [a]	5	69-135/12
74-83-9	Bromomethane	ND		1000	1120	112	1000	1180	118	5	11-167/43
78-93-3	2-Butanone (MEK)	ND		4000	4300	108	4000	4260	107	1	64-131/15
75-15-0	Carbon disulfide	ND		1000	1160	116	1000	1170	117	1	54-137/15
56-23-5	Carbon tetrachloride	ND		1000	1350	135* [a]	1000	1340	134* [a]	1	68-132/11
108-90-7	Chlorobenzene	ND		1000	1220	122* [a]	1000	1230	123* [a]	1	71-119/10
75-00-3	Chloroethane	ND		1000	1060	106	1000	1110	111	5	50-146/18
67-66-3	Chloroform	ND		1000	1110	111	1000	1130	113	2	67-120/11
74-87-3	Chloromethane	ND		1000	767	77	1000	851	85	10	42-146/17
110-82-7	Cyclohexane	ND		1000	1130	113	1000	1120	112	1	56-147/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		1000	1140	114	1000	1190	119	4	65-130/15
124-48-1	Dibromochloromethane	ND		1000	1300	130* [a]	1000	1280	128* [a]	2	74-125/10
106-93-4	1,2-Dibromoethane	ND		1000	1100	110	1000	1140	114	4	74-125/9
95-50-1	1,2-Dichlorobenzene	ND		1000	1200	120* [a]	1000	1210	121* [a]	1	73-117/10
541-73-1	1,3-Dichlorobenzene	ND		1000	1180	118* [a]	1000	1200	120* [a]	2	73-117/10
106-46-7	1,4-Dichlorobenzene	ND		1000	1150	115	1000	1150	115	0	70-117/10
75-71-8	Dichlorodifluoromethane	ND		1000	687	69	1000	752	75	9	46-169/17
75-34-3	1,1-Dichloroethane	19.2	J	1000	1200	118	1000	1230	121	2	66-124/13
107-06-2	1,2-Dichloroethane	ND		1000	1110	111	1000	1110	111	0	66-115/10
75-35-4	1,1-Dichloroethene	156		1000	1400	124	1000	1420	126	1	60-136/15
156-59-2	cis-1,2-Dichloroethene	1820		1000	2800	98	1000	2810	99	0	55-133/12
156-60-5	trans-1,2-Dichloroethene	ND		1000	1150	115	1000	1160	116	1	67-127/13
78-87-5	1,2-Dichloropropane	ND		1000	1140	114	1000	1140	114	0	72-120/11
10061-01-5	cis-1,3-Dichloropropene	ND		1000	1180	118	1000	1180	118	0	75-123/12
10061-02-6	trans-1,3-Dichloropropene	ND		1000	1220	122	1000	1210	121	1	73-122/11
100-41-4	Ethylbenzene	ND		1000	1120	112	1000	1120	112	0	44-136/10
76-13-1	Freon 113	477		1000	1590	111	1000	1580	110	1	61-148/15
591-78-6	2-Hexanone	ND		4000	4290	107	4000	4340	109	1	64-129/13
98-82-8	Isopropylbenzene	ND		1000	1200	120	1000	1210	121	1	71-122/11
79-20-9	Methyl Acetate	ND		1000	951	95	1000	1000	100	5	55-127/17
108-87-2	Methylcyclohexane	ND		1000	1150	115	1000	1130	113	2	58-148/13
1634-04-4	Methyl Tert Butyl Ether	ND		1000	1030	103	1000	1010	101	2	64-122/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		4000	4670	117	4000	4760	119	2	68-128/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD29339-1MS	3B166500.D	20	08/09/21	JS	n/a	n/a	V3B7507
JD29339-1MSD	3B166501.D	20	08/09/21	JS	n/a	n/a	V3B7507
JD29339-1	3B166499.D	20	08/09/21	JS	n/a	n/a	V3B7507

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD29301-7

CAS No.	Compound	JD29339-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		1000	1300	130* [a]	1000	1290	129* [a]	1	65-126/13
100-42-5	Styrene	ND		1000	1190	119	1000	1190	119	0	73-124/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		1000	1170	117	1000	1210	121* [a]	3	68-120/15
127-18-4	Tetrachloroethene	235		1000	1330	110	1000	1360	113	2	61-134/11
108-88-3	Toluene	ND		1000	1160	116	1000	1170	117	1	54-130/11
120-82-1	1,2,4-Trichlorobenzene	ND		1000	1190	119	1000	1220	122	2	67-134/14
71-55-6	1,1,1-Trichloroethane	176		1000	1410	123	1000	1390	121	1	66-130/12
79-00-5	1,1,2-Trichloroethane	14.0	J	1000	1200	119* [a]	1000	1190	118* [a]	1	73-117/11
79-01-6	Trichloroethene	9510	E	1000	9300	-21* [b]	1000	9170	-34* [b]	1	56-139/11
75-69-4	Trichlorofluoromethane	ND		1000	1140	114	1000	1140	114	0	63-150/16
75-01-4	Vinyl chloride	ND		1000	867	87	1000	963	96	10	48-148/17
1330-20-7	Xylene (total)	ND		3000	3540	118	3000	3610	120	2	46-138/10

CAS No.	Surrogate Recoveries	MS	MSD	JD29339-1	Limits
1868-53-7	Dibromofluoromethane	104%	103%	108%	85-118%
17060-07-0	1,2-Dichloroethane-D4	92%	91%	101%	80-121%
2037-26-5	Toluene-D8	96%	96%	95%	80-120%
460-00-4	4-Bromofluorobenzene	88%	90%	84%	80-120%

(a) Outside control limits due to matrix interference.
(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-BFB
Lab File ID: 1A212455.D
Instrument ID: GCMS1A
Injection Date: 07/29/21
Injection Time: 09:41

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11591	17.2		Pass
75	30.0 - 60.0% of mass 95	31277	46.5		Pass
95	Base peak, 100% relative abundance	67283	100.0		Pass
96	5.0 - 9.0% of mass 95	4471	6.65		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	66731	99.2		Pass
175	5.0 - 9.0% of mass 174	5169	7.68	(7.75) [a]	Pass
176	95.0 - 101.0% of mass 174	64291	95.6	(96.3) [a]	Pass
177	5.0 - 9.0% of mass 176	4246	6.31	(6.60) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A9178-IC9178	1A212457.D	07/29/21	11:46	02:05	Initial cal 0.2
V1A9178-IC9178	1A212458.D	07/29/21	12:11	02:30	Initial cal 0.5
V1A9178-IC9178	1A212459.D	07/29/21	12:36	02:55	Initial cal 1
V1A9178-IC9178	1A212460.D	07/29/21	13:01	03:20	Initial cal 2
V1A9178-IC9178	1A212461.D	07/29/21	13:26	03:45	Initial cal 4
V1A9178-IC9178	1A212462.D	07/29/21	13:51	04:10	Initial cal 8
V1A9178-IC9178	1A212463.D	07/29/21	14:16	04:35	Initial cal 20
V1A9178-ICC9178	1A212464.D	07/29/21	14:41	05:00	Initial cal 50
V1A9178-IC9178	1A212465.D	07/29/21	15:06	05:25	Initial cal 100
V1A9178-IC9178	1A212466.D	07/29/21	15:31	05:50	Initial cal 200
V1A9178-ICV9178	1A212469.D	07/29/21	16:46	07:05	Initial cal verification 50
V1A9178-ICV9178	1A212470.D	07/29/21	17:11	07:30	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9190-BFB
Lab File ID: 1A212783.D
Instrument ID: GCMS1A
Injection Date: 08/06/21
Injection Time: 20:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10443	19.6		Pass
75	30.0 - 60.0% of mass 95	25725	48.2		Pass
95	Base peak, 100% relative abundance	53331	100.0		Pass
96	5.0 - 9.0% of mass 95	3497	6.56		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	49704	93.2		Pass
175	5.0 - 9.0% of mass 174	4148	7.78	(8.35) [a]	Pass
176	95.0 - 101.0% of mass 174	48336	90.6	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	3364	6.31	(6.96) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A9190-CC9178	1A212783.D	08/06/21	20:48	00:00	Continuing cal 50
V1A9190-BS	1A212785.D	08/06/21	21:39	00:51	Blank Spike
V1A9190-MB	1A212787.D	08/06/21	22:29	01:41	Method Blank
JD29301-9	1A212788.D	08/06/21	22:54	02:06	EQ BLANK
JD29301-10	1A212789.D	08/06/21	23:19	02:31	TRIP BLANK
ZZZZZZ	1A212790.D	08/06/21	23:44	02:56	(unrelated sample)
ZZZZZZ	1A212791.D	08/07/21	00:09	03:21	(unrelated sample)
ZZZZZZ	1A212792.D	08/07/21	00:34	03:46	(unrelated sample)
ZZZZZZ	1A212793.D	08/07/21	00:59	04:11	(unrelated sample)
JD29301-8	1A212794.D	08/07/21	01:24	04:36	RW SEEP 080221
JD29301-8MS	1A212795.D	08/07/21	01:49	05:01	Matrix Spike
JD29301-8MSD	1A212796.D	08/07/21	02:14	05:26	Matrix Spike Duplicate
ZZZZZZ	1A212798.D	08/07/21	03:04	06:16	(unrelated sample)
ZZZZZZ	1A212799.D	08/07/21	03:29	06:41	(unrelated sample)
ZZZZZZ	1A212800.D	08/07/21	03:54	07:06	(unrelated sample)
ZZZZZZ	1A212801.D	08/07/21	04:19	07:31	(unrelated sample)
ZZZZZZ	1A212802.D	08/07/21	04:44	07:56	(unrelated sample)
ZZZZZZ	1A212803.D	08/07/21	05:09	08:21	(unrelated sample)
JD29301-1	1A212804.D	08/07/21	05:34	08:46	BD24SEEP080221
JD29301-2	1A212805.D	08/07/21	05:59	09:11	BD080221
JD29301-3	1A212806.D	08/07/21	06:24	09:36	OPEN DITCH 001 080221
JD29301-4	1A212807.D	08/07/21	06:49	10:01	BYPASS 080221
JD29301-5	1A212808.D	08/07/21	07:14	10:26	WB SEEPS 080221
JD29301-6	1A212809.D	08/07/21	07:39	10:51	OUTFALL 001 080221

Instrument Performance Check (BFB)

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-BFB
Lab File ID: 3B164950.D
Instrument ID: GCMS3B
Injection Date: 04/22/21
Injection Time: 17:46

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9739	18.9		Pass
75	30.0 - 60.0% of mass 95	24437	47.4		Pass
95	Base peak, 100% relative abundance	51552	100.0		Pass
96	5.0 - 9.0% of mass 95	3625	7.03		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	48269	93.6		Pass
175	5.0 - 9.0% of mass 174	3815	7.40	(7.90) [a]	Pass
176	95.0 - 101.0% of mass 174	46952	91.1	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	3111	6.03	(6.63) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B7429-IC7429	3B164951.D	04/22/21	18:23	00:37	Initial cal 0.2
V3B7429-IC7429	3B164952.D	04/22/21	18:52	01:06	Initial cal 0.5
V3B7429-IC7429	3B164953.D	04/22/21	19:20	01:34	Initial cal 1
V3B7429-IC7429	3B164954.D	04/22/21	19:49	02:03	Initial cal 2
V3B7429-IC7429	3B164955.D	04/22/21	20:18	02:32	Initial cal 4
V3B7429-IC7429	3B164956.D	04/22/21	20:47	03:01	Initial cal 8
V3B7429-IC7429	3B164957.D	04/22/21	21:15	03:29	Initial cal 20
V3B7429-ICC7429	3B164958.D	04/22/21	21:44	03:58	Initial cal 50
V3B7429-IC7429	3B164959.D	04/22/21	22:13	04:27	Initial cal 100
V3B7429-IC7429	3B164960.D	04/22/21	22:41	04:55	Initial cal 200
V3B7429-ICV7429	3B164963.D	04/23/21	00:08	06:22	Initial cal verification 50
V3B7429-ICV7429	3B164964.D	04/23/21	00:37	06:51	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7507-BFB
Lab File ID: 3B166485.D
Instrument ID: GCMS3B
Injection Date: 08/09/21
Injection Time: 09:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	10721	16.5		Pass
75	30.0 - 60.0% of mass 95	29115	44.8		Pass
95	Base peak, 100% relative abundance	64963	100.0		Pass
96	5.0 - 9.0% of mass 95	4773	7.35		Pass
173	Less than 2.0% of mass 174	396	0.61	(0.61) [a]	Pass
174	50.0 - 150.0% of mass 95	65269	100.5		Pass
175	5.0 - 9.0% of mass 174	5312	8.18	(8.14) [a]	Pass
176	95.0 - 101.0% of mass 174	63619	97.9	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4217	6.49	(6.63) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B7507-CC7429	3B166485.D	08/09/21	09:16	00:00	Continuing cal 20
V3B7507-BS	3B166487.D	08/09/21	10:31	01:15	Blank Spike
V3B7507-MB	3B166489.D	08/09/21	11:30	02:14	Method Blank
ZZZZZZ	3B166490.D	08/09/21	12:10	02:54	(unrelated sample)
ZZZZZZ	3B166491.D	08/09/21	12:40	03:24	(unrelated sample)
ZZZZZZ	3B166492.D	08/09/21	14:36	05:20	(unrelated sample)
ZZZZZZ	3B166493.D	08/09/21	15:06	05:50	(unrelated sample)
ZZZZZZ	3B166494.D	08/09/21	15:35	06:19	(unrelated sample)
ZZZZZZ	3B166495.D	08/09/21	16:05	06:49	(unrelated sample)
ZZZZZZ	3B166496.D	08/09/21	16:34	07:18	(unrelated sample)
ZZZZZZ	3B166497.D	08/09/21	17:04	07:48	(unrelated sample)
ZZZZZZ	3B166498.D	08/09/21	17:34	08:18	(unrelated sample)
JD29339-1	3B166499.D	08/09/21	18:03	08:47	(used for QC only; not part of job JD29301)
JD29339-1MS	3B166500.D	08/09/21	18:33	09:17	Matrix Spike
JD29339-1MSD	3B166501.D	08/09/21	19:03	09:47	Matrix Spike Duplicate
ZZZZZZ	3B166503.D	08/09/21	20:02	10:46	(unrelated sample)
JD29301-7	3B166504.D	08/09/21	20:32	11:16	WOODEN SLUICE 080221

Internal Standard Area Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Check Std:	V1A9190-CC9178	**Injection Date:**	08/06/21
Lab File ID:	1A212783.D	**Injection Time:**	20:48
Instrument ID:	GCMS1A	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	96332	3.29	143273	4.53	210385	5.11	206314	7.54	102472	9.75
Upper Limit [a]	192664	3.79	286546	5.03	420770	5.61	412628	8.04	204944	10.25
Lower Limit [b]	48166	2.79	71637	4.03	105193	4.61	103157	7.04	51236	9.25

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1A9190-BS	101621	3.30	145074	4.53	211701	5.11	207678	7.54	105117	9.75
V1A9190-MB	100209	3.29	144957	4.53	208275	5.11	188395	7.54	91064	9.75
JD29301-9	97553	3.29	144141	4.53	205258	5.11	187770	7.54	89221	9.75
JD29301-10	98520	3.29	141514	4.54	203924	5.11	185908	7.54	90050	9.75
ZZZZZZ	92213	3.29	140561	4.53	202701	5.11	186478	7.54	87977	9.75
ZZZZZZ	95448	3.30	139987	4.53	203487	5.11	184675	7.54	88942	9.75
ZZZZZZ	93160	3.29	139725	4.53	202029	5.11	183117	7.54	87898	9.75
ZZZZZZ	96099	3.29	138339	4.53	201917	5.11	185294	7.54	88013	9.75
JD29301-8	93634	3.30	138535	4.53	198853	5.11	183230	7.54	88349	9.75
JD29301-8MS	95154	3.30	140070	4.53	202826	5.11	198716	7.54	99110	9.75
JD29301-8MSD	102912	3.30	146892	4.53	211094	5.11	208881	7.54	103466	9.75
ZZZZZZ	111320	3.29	146170	4.53	208694	5.11	192497	7.54	93169	9.75
ZZZZZZ	97349	3.29	142514	4.53	205191	5.11	189214	7.54	91575	9.75
ZZZZZZ	92517	3.29	140309	4.53	203889	5.11	188202	7.54	90639	9.75
ZZZZZZ	95225	3.29	140872	4.53	202273	5.11	187046	7.54	89747	9.75
ZZZZZZ	109992	3.29	137868	4.53	202482	5.11	187871	7.54	89980	9.75
ZZZZZZ	96934	3.29	141081	4.53	203662	5.11	187929	7.54	88511	9.75
JD29301-1	87888	3.29	136026	4.53	198018	5.11	183958	7.54	87880	9.75
JD29301-2	88921	3.29	137127	4.53	199519	5.11	184839	7.54	86182	9.75
JD29301-3	89483	3.29	135579	4.53	196733	5.11	182051	7.54	86894	9.75
JD29301-4	84400	3.29	134681	4.53	196666	5.11	182281	7.54	87001	9.75
JD29301-5	89445	3.29	135060	4.53	194909	5.11	181074	7.54	86285	9.75
JD29301-6	87836	3.29	137110	4.53	198398	5.11	182771	7.54	85568	9.75

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Check Std:	V3B7507-CC7429	**Injection Date:**	08/09/21
Lab File ID:	3B166485.D	**Injection Time:**	09:16
Instrument ID:	GCMS3B	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	221822	7.90	186416	10.45	271204	11.43	253123	14.78	166200	17.27
Upper Limit [a]	443644	8.40	372832	10.95	542408	11.93	506246	15.28	332400	17.77
Lower Limit [b]	110911	7.40	93208	9.95	135602	10.93	126562	14.28	83100	16.77

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3B7507-BS	220838	7.90	179183	10.45	264304	11.43	251936	14.78	163110	17.27
V3B7507-MB	209665	7.92	180666	10.45	261298	11.43	230634	14.78	158162	17.27
ZZZZZZ	210515	7.90	162003	10.45	235247	11.43	213860	14.78	143736	17.28
ZZZZZZ	196224	7.90	164306	10.45	235019	11.43	211092	14.78	145465	17.27
ZZZZZZ	208396	7.89	167476	10.44	239927	11.43	220349	14.77	145393	17.27
ZZZZZZ	193807	7.91	158552	10.45	230866	11.43	202182	14.78	137532	17.28
ZZZZZZ	188154	7.89	157581	10.45	227407	11.43	208931	14.78	139716	17.28
ZZZZZZ	191765	7.92	153813	10.45	224255	11.44	201499	14.78	136888	17.28
ZZZZZZ	182227	7.90	151530	10.45	218161	11.44	197226	14.78	132099	17.28
ZZZZZZ	174000	7.90	144115	10.45	213173	11.43	197089	14.78	132324	17.28
ZZZZZZ	178155	7.90	144941	10.45	215634	11.43	189395	14.78	124528	17.28
JD29339-1	181053	7.93	148804	10.46	216868	11.44	188692	14.78	125192	17.28
JD29339-1MS	185534	7.92	151445	10.45	226801	11.43	218928	14.78	143704	17.28
JD29339-1MSD	206103	7.93	167031	10.45	252211	11.44	238497	14.78	151109	17.28
ZZZZZZ	188860	7.91	149927	10.45	222738	11.44	200480	14.78	132910	17.28
JD29301-7	183036	7.91	146751	10.45	210001	11.44	194159	14.78	129813	17.28

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD29301-1	1A212804.D	106	105	100	103
JD29301-2	1A212805.D	103	105	101	104
JD29301-3	1A212806.D	106	105	102	101
JD29301-4	1A212807.D	106	103	101	103
JD29301-5	1A212808.D	104	102	99	101
JD29301-6	1A212809.D	104	103	101	103
JD29301-7	3B166504.D	105	103	96	84
JD29301-8	1A212794.D	103	104	101	101
JD29301-9	1A212788.D	101	101	101	103
JD29301-10	1A212789.D	102	103	100	103
JD29301-8MS	1A212795.D	102	103	98	101
JD29301-8MSD	1A212796.D	102	103	98	101
JD29339-1MS	3B166500.D	104	92	96	88
JD29339-1MSD	3B166501.D	103	91	96	90
V1A9190-BS	1A212785.D	102	104	98	100
V1A9190-MB	1A212787.D	104	104	102	103
V3B7507-BS	3B166487.D	102	87	94	87
V3B7507-MB	3B166489.D	106	94	94	85

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	85-118%
S2 = 1,2-Dichloroethane-D4	80-121%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICC9178
Lab FileID: 1A212464.D

Response Factor Report MSDTEST1A

Method : C:\MSDCHEM\1\METHODS\M1A9178.M (RTE Integrator)
Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Calibration Files
8 =1A212462.D 0.5 =1A212458.D 4 =1A212461.D 50 =1A212464.D
100 =1A212465.D 1 =1A212459.D 200 =1A212466.D 20 =1A212463.D
2 =1A212460.D 0.2 =1A212457.D = =

Compound	8	0.5	4	50	100	1	200	20	2	0.2	Avg	%RSD
1) I tert Butyl Alcohol-d9	ISTD											
2) 1,4-dioxane	0.112	0.130	0.110	0.111	0.095	0.115	0.102	0.101			0.110	9.69
3) ethanol	0.128	0.155	0.119	0.105	0.160	0.093	0.116	0.129			0.126	18.31
4) tertiary butyl alcohol	1.188	1.094	1.455	1.141	1.103	1.221	1.098	1.074	1.160		1.170	10.00
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane	0.356	0.334	0.361	0.364	0.379	0.347	0.370	0.328	0.357	0.362	0.356	4.38
7) dichlorodifluoromethane	0.480	0.553	0.519	0.530	0.553	0.414	0.536	0.475	0.531	0.470	0.506	8.85
8) chloromethane	0.436	0.460	0.444	0.464	0.427	0.458	0.416	0.493			0.450	5.40
9) vinyl chloride	0.464	0.505	0.488	0.501	0.514	0.369	0.492	0.452	0.499		0.476	9.42
10) bromomethane	0.294	0.332	0.254	0.255	0.413	0.243	0.370				0.309	21.21
---- Linear regression ---- Coefficient = 0.9984												
Response Ratio = 0.00415 + 0.25079 *A												
11) chloroethane	0.287	0.308	0.286	0.294	0.364	0.263	0.277	0.337			0.302	11.05
12) trichlorofluoromethane	0.626	0.680	0.662	0.655	0.664	0.515	0.616	0.602	0.686	0.575	0.628	8.49
13) ethyl ether	0.225	0.211	0.243	0.233	0.231	0.252	0.224	0.221	0.242		0.231	5.48
14) acrolein	0.099	0.092	0.092	0.094	0.088	0.092					0.093	3.78
15) freon 113	0.344	0.303	0.329	0.339	0.353	0.376	0.338	0.316	0.352		0.339	6.32
16) 1,1-dichloroethene	0.324	0.368	0.315	0.326	0.346	0.354	0.328	0.297	0.345	0.340	0.334	6.12
17) acetone	0.056	0.069	0.052	0.054	0.070	0.051	0.053	0.068			0.059	13.89
18) acetonitrile	0.039	0.043	0.035	0.035	0.034	0.033					0.037	10.88
19) iodomethane	0.349	0.456	0.335	0.475	0.482	0.325	0.480	0.391	0.308		0.400	18.26
20) iso-butyl alcohol	0.031	0.037	0.028	0.029	0.031	0.028	0.029	0.028			0.030	10.20
21) carbon disulfide	0.907	0.967	0.926	0.899	0.919	0.954	0.920	0.834	0.923		0.916	4.12

Initial Calibration Summary

Job Number: JD29301 **Sample:** V1A9178-ICC9178
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 1A212464.D
Project: EPT, Ithaca, NY

22) methylene chloride
0.349 0.379 0.346 0.351 0.400 0.347 0.326 0.391 0.361 7.09
23) methyl acetate
0.095 0.110 0.094 0.097 0.095 0.093 0.104 0.098 6.49
24) methyl tert butyl ether
1.040 0.923 1.132 1.069 1.092 1.010 1.069 0.994 1.058 0.945 1.033 6.33
25) trans-1,2-dichloroethene
0.349 0.352 0.361 0.355 0.359 0.342 0.354 0.325 0.341 0.373 0.351 3.71
26) hexane
0.491 0.474 0.489 0.509 0.530 0.492 0.528 0.465 0.483 0.583 0.504 6.92
27) di-isopropyl ether
1.076 1.040 1.160 1.098 1.135 1.017 1.093 1.014 1.079 1.107 1.082 4.42
28) ethyl tert-butyl ether
1.111 0.977 1.233 1.147 1.178 1.123 1.161 1.060 1.135 0.962 1.109 7.74
29) 2-butanone
0.068 0.060 0.077 0.070 0.072 0.068 0.071 0.068 0.065 0.069 6.76
30) 1,1-dichloroethane
0.597 0.513 0.628 0.596 0.606 0.604 0.586 0.553 0.590 0.550 0.582 5.84
31) chloroprene
0.532 0.449 0.518 0.521 0.531 0.472 0.510 0.499 0.533 0.520 0.508 5.48
32) acrylonitrile
0.164 0.181 0.160 0.173 0.183 0.139 0.180 0.161 0.168 0.168 8.26
33) vinyl acetate *This compound fails Initial Calibration criteria*
0.089 0.105 0.094 0.095 0.093 0.082 0.093 7.93
34) ethyl acetate
0.091 0.103 0.086 0.079 0.082 0.073 0.081 0.085 11.29
35) 2,2-dichloropropane
0.553 0.539 0.584 0.528 0.527 0.532 0.503 0.498 0.530 0.672 0.546 9.20
36) cis-1,2-dichloroethene
0.386 0.344 0.406 0.389 0.398 0.374 0.392 0.363 0.377 0.388 0.382 4.69
37) propionitrile
0.078 0.077 0.090 0.079 0.081 0.076 0.078 0.075 0.082 0.080 5.89
38) methyl acrylate
0.081 0.090 0.087 0.086 0.069 0.085 0.078 0.088 0.083 8.02
39) bromochloromethane
0.215 0.185 0.223 0.206 0.205 0.205 0.197 0.195 0.216 0.205 5.68
40) tetrahydrofuran
0.090 0.103 0.083 0.085 0.082 0.082 0.125 0.093 17.19
41) chloroform
0.632 0.756 0.675 0.623 0.635 0.722 0.619 0.589 0.664 0.657 8.09
42) dibromofluoromethane (s)
0.407 0.402 0.405 0.413 0.415 0.403 0.409 0.410 0.404 0.401 0.407 1.17
43) methacrylonitrile
0.196 0.227 0.199 0.207 0.187 0.207 0.186 0.190 0.200 6.90
44) 1,1,1-trichloroethane
0.583 0.548 0.600 0.589 0.599 0.578 0.589 0.540 0.572 0.518 0.572 4.77
45) cyclohexane
0.511 0.561 0.525 0.525 0.546 0.424 0.535 0.480 0.570 0.476 0.515 8.62
46) 1,1-dichloropropene
0.487 0.448 0.502 0.479 0.492 0.457 0.485 0.442 0.470 0.511 0.477 4.81
47) carbon tetrachloride
0.543 0.545 0.558 0.538 0.546 0.543 0.521 0.496 0.574 0.448 0.531 6.73
48) isopropyl acetate
0.113 0.134 0.117 0.123 0.119 0.119 0.108 0.108 0.118 7.06
49) tert amyl alcohol
0.031 0.029 0.037 0.028 0.029 0.033 0.027 0.029 0.029 0.030 9.96

50) I 1,4-difluorobenzene ----------ISTD----------
51) 1,2-dichloroethane-d4 (s)
0.321 0.320 0.327 0.316 0.316 0.321 0.300 0.323 0.322 0.322 0.319 2.35

52) tert-amyl methyl ether
0.826 0.787 0.949 0.820 0.835 0.805 0.826 0.783 0.828 0.793 0.825 5.76
53) 2,2,4-trimethylpentane
0.690 0.676 0.715 0.682 0.704 0.728 0.696 0.631 0.702 0.678 0.690 3.87
54) n-butyl alcohol
0.016 0.018 0.016 0.016 0.016 0.015 0.015 0.016 6.18
55) benzene
0.977 0.944 1.039 0.975 0.994 0.989 0.972 0.894 1.019 1.131 0.993 6.28
56) heptane
0.143 0.121 0.143 0.145 0.151 0.159 0.150 0.132 0.146 0.143 7.80
57) 1,2-dichloroethane
0.349 0.417 0.379 0.333 0.332 0.369 0.316 0.324 0.365 0.354 9.11
58) trichloroethene
0.261 0.236 0.289 0.267 0.275 0.268 0.272 0.251 0.267 0.233 0.262 6.70
59) ethyl acrylate
0.411 0.374 0.475 0.425 0.437 0.399 0.432 0.400 0.425 0.422 0.420 6.41
60) 2-nitropropane
0.000 -1.00
61) 2-chloroethyl vinyl ether
0.184 0.164 0.208 0.194 0.202 0.171 0.196 0.179 0.192 0.184 0.187 7.34
62) methyl methacrylate
0.104 0.107 0.103 0.106 0.097 0.105 0.093 0.101 0.102 4.78
63) 1,2-dichloropropane
0.238 0.248 0.262 0.239 0.248 0.240 0.242 0.222 0.239 0.242 4.44
64) methylcyclohexane
0.450 0.415 0.452 0.458 0.477 0.463 0.470 0.413 0.459 0.354 0.441 8.44
65) dibromomethane
0.160 0.149 0.179 0.164 0.166 0.167 0.164 0.153 0.160 0.178 0.164 5.83
66) bromodichloromethane
0.347 0.335 0.363 0.343 0.354 0.335 0.349 0.314 0.353 0.376 0.347 4.87
67) cis-1,3-dichloropropene
0.418 0.386 0.455 0.420 0.433 0.419 0.432 0.391 0.417 0.367 0.414 6.21
68) epichlorohydrin
0.044 0.044 0.048 0.043 0.045 0.043 0.043 0.042 0.044 0.044 3.84
69) 4-methyl-2-pentanone
0.141 0.126 0.163 0.146 0.151 0.141 0.146 0.138 0.140 0.144 7.12
70) 3-methyl-1-butanol
0.016 0.013 0.018 0.016 0.016 0.013 0.016 0.015 0.015 0.015 10.50

71) I chlorobenzene-d5 ----------ISTD----------
72) toluene-d8 (s)
1.247 1.238 1.245 1.195 1.189 1.251 1.173 1.225 1.247 1.285 1.230 2.78
73) toluene
0.720 0.626 0.766 0.684 0.690 0.722 0.683 0.645 0.710 0.797 0.704 7.28
74) trans-1,3-dichloropropene
0.410 0.400 0.461 0.412 0.421 0.456 0.417 0.390 0.435 0.468 0.427 6.28
75) ethyl methacrylate
0.433 0.441 0.484 0.424 0.433 0.432 0.425 0.395 0.417 0.366 0.425 7.17
76) 1,1,2-trichloroethane
0.214 0.167 0.244 0.212 0.211 0.194 0.215 0.201 0.226 0.209 10.22
77) 2-hexanone
0.169 0.156 0.197 0.166 0.162 0.160 0.158 0.157 0.167 0.139 0.163 8.85
78) tetrachloroethene
0.362 0.354 0.375 0.350 0.353 0.356 0.351 0.332 0.390 0.297 0.352 7.04
79) 1,3-dichloropropane
0.439 0.403 0.483 0.427 0.423 0.459 0.414 0.408 0.466 0.447 0.437 6.06
80) butyl acetate
0.236 0.222 0.284 0.245 0.248 0.241 0.241 0.236 0.252 0.245 6.86
81) dibromochloromethane
0.332 0.346 0.363 0.322 0.320 0.332 0.322 0.306 0.320 0.316 0.328 4.96

Initial Calibration Summary

Job Number: JD29301 **Sample:** V1A9178-ICC9178
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 1A212464.D
Project: EPT, Ithaca, NY

82) 1,2-dibromoethane
0.289 0.267 0.329 0.295 0.295 0.296 0.297 0.282 0.294 0.363 0.301 8.88
83) n-butyl ether
1.110 1.142 1.224 1.106 1.114 1.131 1.095 1.032 1.152 1.229 1.134 5.21
84) chlorobenzene
0.802 0.800 0.879 0.799 0.806 0.827 0.799 0.746 0.794 0.870 0.812 4.77
85) 1,1,1,2-tetrachloroethane
0.303 0.272 0.340 0.301 0.297 0.323 0.286 0.285 0.312 0.302 6.87
86) ethylbenzene
1.352 1.265 1.451 1.299 1.287 1.387 1.246 1.237 1.355 1.414 1.329 5.54
87) m,p-xylene
0.534 0.494 0.575 0.525 0.524 0.540 0.517 0.498 0.555 0.545 0.531 4.66
88) o-xylene
0.526 0.513 0.599 0.518 0.522 0.552 0.514 0.488 0.547 0.457 0.524 7.22
89) butyl acrylate
0.581 0.478 0.662 0.600 0.618 0.533 0.620 0.562 0.576 0.550 0.578 8.89
90) n-amyl acetate
0.253 0.299 0.256 0.262 0.217 0.260 0.244 0.248 0.255 8.91
91) styrene
0.885 0.843 0.980 0.885 0.897 0.915 0.869 0.839 0.847 0.886 0.885 4.71
92) bromoform
0.253 0.255 0.292 0.261 0.266 0.262 0.270 0.249 0.259 0.263 4.78
93) isopropylbenzene
1.347 1.228 1.462 1.339 1.348 1.284 1.332 1.248 1.330 1.474 1.339 5.95
94) cis-1,4-dichloro-2-butene
0.136 0.142 0.154 0.145 0.149 0.115 0.148 0.139 0.143 0.141 7.87

95) I 1,4-dichlorobenzene-d ----------ISTD----------
96) 4-bromofluorobenzene (s)
0.881 0.890 0.890 0.877 0.884 0.894 0.873 0.889 0.885 0.897 0.886 0.83
97) bromobenzene
0.746 0.742 0.810 0.732 0.746 0.675 0.728 0.696 0.784 0.616 0.727 7.55
98) 1,1,2,2-tetrachloroethane
0.733 0.718 0.883 0.773 0.769 0.788 0.762 0.716 0.805 0.696 0.764 7.10
99) trans-1,4-dichloro-2-butene
0.210 0.242 0.219 0.227 0.218 0.202 0.210 0.218 6.00
100) 1,2,3-trichloropropane
0.263 0.324 0.250 0.256 0.266 0.242 0.252 0.278 0.266 9.73
101) n-propylbenzene
2.921 2.797 3.162 2.886 2.933 2.969 2.834 2.729 3.039 3.562 2.983 7.96
102) 2-chlorotoluene
0.628 0.578 0.698 0.636 0.645 0.655 0.635 0.599 0.717 0.656 0.645 6.40
103) 4-chlorotoluene
0.662 0.690 0.726 0.649 0.655 0.625 0.643 0.612 0.665 0.552 0.648 7.19
104) 1,3,5-trimethylbenzene
2.097 2.040 2.235 2.065 2.108 2.102 2.045 1.954 2.131 2.433 2.121 6.17
105) tert-butylbenzene
1.870 1.916 1.974 1.869 1.924 1.846 1.886 1.747 1.954 2.054 1.904 4.32
106) 1,2,4-trimethylbenzene
2.125 2.193 2.320 2.151 2.165 2.063 2.094 1.995 2.169 2.369 2.164 5.17
107) sec-butylbenzene
2.578 2.683 2.748 2.571 2.640 2.655 2.612 2.387 2.548 3.274 2.670 8.73
108) 1,3-dichlorobenzene
1.291 1.204 1.412 1.302 1.345 1.276 1.319 1.208 1.305 1.536 1.320 7.37
109) p-isopropyltoluene
2.269 2.232 2.449 2.263 2.307 2.302 2.232 2.129 2.256 2.854 2.329 8.62
110) 1,2,3-trimethylbenzene
2.165 2.140 2.386 2.121 2.154 2.229 2.085 2.005 2.169 2.606 2.206 7.78
111) 1,4-dichlorobenzene
1.272 1.379 1.456 1.294 1.321 1.328 1.312 1.219 1.314 1.583 1.348 7.69

Initial Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICC9178
Lab FileID: 1A212464.D

```
112)  1,2-dichlorobenzene
            1.190 1.101 1.372 1.223 1.261 1.191 1.228 1.142 1.192 1.409  1.231    7.76
113)  n-butylbenzene
            0.943 0.894 1.029 1.009 1.064 0.948 1.059 0.915 1.006 1.215  1.008    9.27
114)  1,2-dibromo-3-chloropropane
            0.243       0.287 0.246 0.265 0.229 0.260 0.233 0.230        0.249    8.13
115)  1,3,5-trichlorobenzene
            0.843 0.804 0.966 0.883 0.944 0.854 0.947 0.810 0.855 0.955  0.886    7.01
116)  1,2,4-trichlorobenzene
            0.679 0.653 0.754 0.737 0.787 0.635 0.796 0.666 0.661        0.708    8.67
117)  hexachlorobutadiene
            0.295 0.311 0.343 0.304 0.323 0.308 0.333 0.290 0.310        0.313    5.51
118)  naphthalene
            1.966 1.915 2.249 2.128 2.256 1.889 2.235 1.962 1.893        2.055    7.82
119)  1,2,3-trichlorobenzene
            0.582 0.599 0.636 0.620 0.662 0.548 0.671 0.563 0.606        0.610    6.92
120)  hexachloroethane
            0.393 0.364 0.431 0.395 0.417 0.420 0.421 0.367 0.402        0.401    5.96
121)  benzyl chloride
            1.545 1.456 1.827 1.574 1.627 1.538 1.607 1.491 1.548        1.579    6.77
122)  2-methylnaphthalene
            0.574             0.756 0.894       0.981 0.619              0.765   22.75
             ---- Linear regression ----  Coefficient =  0.9935
               Response Ratio = -0.04711 + 0.96280 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M1A9178.M         Fri Jul 30 10:58:48 2021   1A
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Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICV9178
Lab FileID: 1A212469.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V1A9178\1A212469.D Vial: 15
Acq On : 29 Jul 2021 4:46 pm Operator: PrashanS
Sample : ICV9178-50 Inst : MSDTEST1A
Misc : MS52311,V1A9178,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A9178.M (RTE Integrator)
Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Fri Jul 30 09:04:25 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert Butyl Alcohol-d9	1.000	1.000	0.0	99	0.00	3.30
2	1,4-dioxane	0.110	0.124	-12.7	112	0.00	5.55
3	ethanol	0.126	0.130	-3.2	109	0.00	2.70
4 M	tertiary butyl alcohol	1.170	1.206	-3.1	105	0.00	3.35
5 I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	4.53
6	chlorodifluoromethane	----------NA----------					
7	dichlorodifluoromethane	0.506	0.459	9.3	87	0.00	1.81
8	chloromethane	0.450	0.433	3.8	98	0.00	1.97
9	vinyl chloride	0.476	0.487	-2.3	97	0.00	2.07
	----------	True	Calc.	% Drift	----------		
10	bromomethane	50.000	59.457	-18.9	119	0.00	2.33
	----------	AvgRF	CCRF	% Dev	----------		
11	chloroethane	0.302	0.289	4.3	101	0.00	2.41
12	trichlorofluoromethane	0.628	0.625	0.5	96	0.00	2.61
13	ethyl ether	0.231	0.249	-7.8	107	0.00	2.80
14	acrolein	0.093	0.101	-8.6	110	0.00	2.90
15	freon 113	0.339	0.304	10.3	90	0.00	2.98
16	1,1-dichloroethene	0.334	0.327	2.1	101	0.00	2.99
17	acetone	0.059	0.058	1.7	112	0.00	3.00
18	acetonitrile	----------NA----------					
19	iodomethane	0.400	0.450	-12.5	95	0.00	3.10
20	iso-butyl alcohol	0.030	0.035	-16.7	126	0.00	4.68
21	carbon disulfide	0.916	0.974	-6.3	109	0.00	3.17
22	methylene chloride	0.361	0.345	4.4	100	0.00	3.32
23	methyl acetate	0.098	0.094	4.1	101	0.00	3.21
24	methyl tert butyl ether	1.033	1.107	-7.2	104	0.00	3.50
25	trans-1,2-dichloroethene	0.351	0.353	-0.6	100	0.00	3.51
26	hexane	0.504	0.483	4.2	95	0.00	3.69
27	di-isopropyl ether	1.082	1.051	2.9	96	0.00	3.81
28	ethyl tert-butyl ether	1.109	1.099	0.9	96	0.00	4.06
29	2-butanone	0.069	0.075	-8.7	108	0.00	4.18
30 M	1,1-dichloroethane	0.582	0.595	-2.2	100	0.00	3.82
31	chloroprene	0.508	0.562	-10.6	108	0.00	3.87
32	acrylonitrile	----------NA----------					
33	vinyl acetate	0.093	0.062	33.3#	67	0.00	3.78
34	ethyl acetate	0.085	0.081	4.7	95	0.00	4.19
35	2,2-dichloropropane	0.546	0.508	7.0	97	0.00	4.22
36	cis-1,2-dichloroethene	0.382	0.399	-4.5	103	0.00	4.21
37	propionitrile	0.080	0.084	-5.0	107	0.00	4.23

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICV9178
Lab FileID: 1A212469.D

38		methyl acrylate	0.083	0.084	-1.2	98	0.00	4.23
39		bromochloromethane	0.205	0.206	-0.5	100	0.00	4.38
40		tetrahydrofuran	0.093	0.085	8.6	102	0.00	4.39
41		chloroform	0.657	0.635	3.3	102	0.00	4.43
42	S	dibromofluoromethane (s)	0.407	0.416	-2.2	101	0.00	4.55
43		methacrylonitrile	0.200	0.205	-2.5	103	0.00	4.34
44		1,1,1-trichloroethane	0.572	0.590	-3.1	100	0.00	4.58
45		cyclohexane	0.515	0.534	-3.7	102	0.00	4.64
46		1,1-dichloropropene	0.477	0.487	-2.1	102	0.00	4.69
47		carbon tetrachloride	0.531	0.540	-1.7	101	0.00	4.70
48		isopropyl acetate	0.118	0.116	1.7	99	0.00	4.80
49		tert amyl alcohol	0.030	0.032	-6.7	112	0.00	4.78
50	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	5.11
51	S	1,2-dichloroethane-d4 (s)	0.319	0.318	0.3	101	0.00	4.81
52		tert-amyl methyl ether	0.825	0.756	8.4	92	0.00	4.90
53		2,2,4-trimethylpentane	0.690	0.678	1.7	99	0.00	4.90
54		n-butyl alcohol	0.016	0.017	-6.3	109	0.00	5.16
55	M	benzene	0.993	0.988	0.5	101	0.00	4.84
56		heptane	0.143	0.157	-9.8	108	0.00	5.01
57		1,2-dichloroethane	0.354	0.335	5.4	101	0.00	4.86
58		trichloroethene	0.262	0.287	-9.5	107	0.00	5.31
59		ethyl acrylate	0.420	0.444	-5.7	104	0.00	5.32
60		2-nitropropane	----------NA----------					
61		2-chloroethyl vinyl ether	0.187	0.217	-16.0	112	0.00	5.89
62		methyl methacrylate	0.102	0.104	-2.0	101	0.00	5.51
63		1,2-dichloropropane	0.242	0.243	-0.4	102	0.00	5.51
64		methylcyclohexane	0.441	0.477	-8.2	104	0.00	5.51
65		dibromomethane	0.164	0.162	1.2	99	0.00	5.59
66		bromodichloromethane	0.347	0.347	0.0	101	0.00	5.70
67		cis-1,3-dichloropropene	0.414	0.418	-1.0	99	0.00	6.04
68		epichlorohydrin	0.044	0.048	-9.1	111	0.00	5.95
69		4-methyl-2-pentanone	0.144	0.151	-4.9	103	0.00	6.14
70		3-methyl-1-butanol	0.015	0.017	-13.3	107	0.00	6.16
71	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	7.54
72	S	toluene-d8 (s)	1.230	1.193	3.0	100	0.00	6.28
73		toluene	0.704	0.696	1.1	102	0.00	6.33
74		trans-1,3-dichloropropene	0.427	0.426	0.2	104	0.00	6.50
75		ethyl methacrylate	0.425	0.432	-1.6	102	0.00	6.52
76		1,1,2-trichloroethane	0.209	0.215	-2.9	102	0.00	6.68
77		2-hexanone	0.163	0.169	-3.7	102	0.00	6.84
78		tetrachloroethene	----------NA----------					
79		1,3-dichloropropane	0.437	0.426	2.5	100	0.00	6.82
80		butyl acetate	0.245	0.242	1.2	99	0.00	6.92
81		dibromochloromethane	0.328	0.335	-2.1	105	0.00	7.01
82		1,2-dibromoethane	0.301	0.302	-0.3	103	0.00	7.13
83		n-butyl ether	1.134	1.123	1.0	102	0.00	7.60
84		chlorobenzene	0.812	0.812	0.0	102	0.00	7.56
85		1,1,1,2-tetrachloroethane	0.302	0.302	0.0	101	0.00	7.63
86		ethylbenzene	1.329	1.317	0.9	102	0.00	7.64
87		m,p-xylene	0.531	0.528	0.6	101	0.00	7.75
88		o-xylene	0.524	0.519	1.0	101	0.00	8.11
89		butyl acrylate	0.578	0.629	-8.8	105	0.00	8.02
90		n-amyl acetate	0.255	0.244	4.3	96	0.00	8.22
91		styrene	0.885	0.895	-1.1	102	0.00	8.13
92		bromoform	0.263	0.265	-0.8	102	0.00	8.31
93		isopropylbenzene	1.339	1.339	0.0	100	0.00	8.45
94		cis-1,4-dichloro-2-butene	0.141	0.156	-10.6	108	0.00	8.50

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICV9178
Lab FileID: 1A212469.D

95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	9.75
96	S	4-bromofluorobenzene (s)	0.886	0.905	-2.1	101	0.00	8.62
97		bromobenzene	0.727	0.758	-4.3	102	0.00	8.77
98		1,1,2,2-tetrachloroethane	0.764	0.727	4.8	92	0.00	8.73
99		trans-1,4-dichloro-2-bute	0.218	0.226	-3.7	102	0.00	8.77
100		1,2,3-trichloropropane	0.266	0.256	3.8	101	0.00	8.80
101		n-propylbenzene	2.983	2.977	0.2	101	0.00	8.85
102		2-chlorotoluene	0.645	0.657	-1.9	101	0.00	8.95
103		4-chlorotoluene	0.648	0.668	-3.1	101	0.00	9.06
104		1,3,5-trimethylbenzene	2.121	2.142	-1.0	102	0.00	9.02
105		tert-butylbenzene	1.904	1.919	-0.8	101	0.00	9.33
106		1,2,4-trimethylbenzene	2.164	2.196	-1.5	100	0.00	9.38
107		sec-butylbenzene	2.670	2.598	2.7	99	0.00	9.54
108		1,3-dichlorobenzene	1.320	1.326	-0.5	100	0.00	9.68
109		p-isopropyltoluene	2.329	2.280	2.1	99	0.00	9.69
110		1,2,3-trimethylbenzene	----------NA----------					
111		1,4-dichlorobenzene	1.348	1.295	3.9	98	0.00	9.77
112		1,2-dichlorobenzene	1.231	1.240	-0.7	100	0.00	10.13
113		n-butylbenzene	1.008	1.020	-1.2	99	0.00	10.09
114		1,2-dibromo-3-chloropropa	0.249	0.256	-2.8	102	0.00	10.90
115		1,3,5-trichlorobenzene	0.886	0.883	0.3	98	0.00	11.09
116		1,2,4-trichlorobenzene	0.708	0.718	-1.4	96	0.00	11.73
117		hexachlorobutadiene	0.313	0.297	5.1	96	0.00	11.86
118		naphthalene	2.055	2.131	-3.7	98	0.00	12.00
119		1,2,3-trichlorobenzene	0.610	0.605	0.8	96	0.00	12.22
120		hexachloroethane	0.401	0.404	-0.7	100	0.00	10.40
121		benzyl chloride	1.579	1.535	2.8	96	0.00	9.88

		True	Calc.	% Drift			
122	2-methylnaphthalene	25.000	23.205	7.2	104	0.00	13.15

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

1A212464.D M1A9178.M Fri Jul 30 10:58:18 2021 1A

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICV9178
Lab FileID: 1A212470.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V1A9178\1A212470.D Vial: 16
Acq On : 29 Jul 2021 5:11 pm Operator: PrashanS
Sample : ICV9178-50 Inst : MSDTEST1A
Misc : MS52311,V1A9178,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A9178.M (RTE Integrator)
Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Fri Jul 30 09:04:25 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	105	0.00	3.30
2		1,4-dioxane		----------NA----------				
3		ethanol		----------NA----------				
4	M	tertiary butyl alcohol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	103	0.00	4.53
6		chlorodifluoromethane	0.356	0.392	-10.1	111	0.00	1.82
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
		----------	True	Calc.	% Drift	----------		
10		bromomethane		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
11		chloroethane		----------NA----------				
12		trichlorofluoromethane		----------NA----------				
13		ethyl ether		----------NA----------				
14		acrolein		----------NA----------				
15		freon 113		----------NA----------				
16		1,1-dichloroethene		----------NA----------				
17		acetone		----------NA----------				
18		acetonitrile	0.037	0.036	2.7	107	0.00	3.19
19		iodomethane		----------NA----------				
20		iso-butyl alcohol		----------NA----------				
21		carbon disulfide		----------NA----------				
22		methylene chloride		----------NA----------				
23		methyl acetate		----------NA----------				
24		methyl tert butyl ether		----------NA----------				
25		trans-1,2-dichloroethene		----------NA----------				
26		hexane		----------NA----------				
27		di-isopropyl ether		----------NA----------				
28		ethyl tert-butyl ether		----------NA----------				
29		2-butanone		----------NA----------				
30	M	1,1-dichloroethane		----------NA----------				
31		chloroprene		----------NA----------				
32		acrylonitrile	0.168	0.187	-11.3	112	0.00	3.47
33		vinyl acetate		----------NA----------				
34		ethyl acetate		----------NA----------				
35		2,2-dichloropropane		----------NA----------				
36		cis-1,2-dichloroethene		----------NA----------				
37		propionitrile		----------NA----------				

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICV9178
Lab FileID: 1A212470.D

38		methyl acrylate		----------NA----------				
39		bromochloromethane		----------NA----------				
40		tetrahydrofuran		----------NA----------				
41		chloroform		----------NA----------				
42	S	dibromofluoromethane (s)	0.407	0.419	-2.9	105	0.00	4.55
43		methacrylonitrile		----------NA----------				
44		1,1,1-trichloroethane		----------NA----------				
45		cyclohexane		----------NA----------				
46		1,1-dichloropropene		----------NA----------				
47		carbon tetrachloride		----------NA----------				
48		isopropyl acetate		----------NA----------				
49		tert amyl alcohol		----------NA----------				
50	I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00	5.11
51	S	1,2-dichloroethane-d4 (s)	0.319	0.324	-1.6	106	0.00	4.81
52		tert-amyl methyl ether		----------NA----------				
53		2,2,4-trimethylpentane		----------NA----------				
54		n-butyl alcohol		----------NA----------				
55	M	benzene		----------NA----------				
56		heptane		----------NA----------				
57		1,2-dichloroethane		----------NA----------				
58		trichloroethene		----------NA----------				
59		ethyl acrylate		----------NA----------				
60		2-nitropropane		----------NA----------				
61		2-chloroethyl vinyl ether		----------NA----------				
62		methyl methacrylate		----------NA----------				
63		1,2-dichloropropane		----------NA----------				
64		methylcyclohexane		----------NA----------				
65		dibromomethane		----------NA----------				
66		bromodichloromethane		----------NA----------				
67		cis-1,3-dichloropropene		----------NA----------				
68		epichlorohydrin		----------NA----------				
69		4-methyl-2-pentanone		----------NA----------				
70		3-methyl-1-butanol		----------NA----------				
71	I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	7.54
72	S	toluene-d8 (s)	1.230	1.252	-1.8	103	0.00	6.27
73		toluene		----------NA----------				
74		trans-1,3-dichloropropene		----------NA----------				
75		ethyl methacrylate		----------NA----------				
76		1,1,2-trichloroethane		----------NA----------				
77		2-hexanone		----------NA----------				
78		tetrachloroethene	0.352	0.361	-2.6	101	0.00	6.78
79		1,3-dichloropropane		----------NA----------				
80		butyl acetate		----------NA----------				
81		dibromochloromethane		----------NA----------				
82		1,2-dibromoethane		----------NA----------				
83		n-butyl ether		----------NA----------				
84		chlorobenzene		----------NA----------				
85		1,1,1,2-tetrachloroethane		----------NA----------				
86		ethylbenzene		----------NA----------				
87		m,p-xylene		----------NA----------				
88		o-xylene		----------NA----------				
89		butyl acrylate		----------NA----------				
90		n-amyl acetate		----------NA----------				
91		styrene		----------NA----------				
92		bromoform		----------NA----------				
93		isopropylbenzene		----------NA----------				
94		cis-1,4-dichloro-2-butene		----------NA----------				

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9178-ICV9178
Lab FileID: 1A212470.D

95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	9.75
96	S	4-bromofluorobenzene (s)	0.886	0.897	-1.2	100	0.00	8.62
97		bromobenzene		----------NA----------				
98		1,1,2,2-tetrachloroethane		----------NA----------				
99		trans-1,4-dichloro-2-bute		----------NA----------				
100		1,2,3-trichloropropane		----------NA----------				
101		n-propylbenzene		----------NA----------				
102		2-chlorotoluene		----------NA----------				
103		4-chlorotoluene		----------NA----------				
104		1,3,5-trimethylbenzene		----------NA----------				
105		tert-butylbenzene		----------NA----------				
106		1,2,4-trimethylbenzene		----------NA----------				
107		sec-butylbenzene		----------NA----------				
108		1,3-dichlorobenzene		----------NA----------				
109		p-isopropyltoluene		----------NA----------				
110		1,2,3-trimethylbenzene	2.206	2.234	-1.3	103	0.00	9.79
111		1,4-dichlorobenzene		----------NA----------				
112		1,2-dichlorobenzene		----------NA----------				
113		n-butylbenzene		----------NA----------				
114		1,2-dibromo-3-chloropropa		----------NA----------				
115		1,3,5-trichlorobenzene		----------NA----------				
116		1,2,4-trichlorobenzene		----------NA----------				
117		hexachlorobutadiene		----------NA----------				
118		naphthalene		----------NA----------				
119		1,2,3-trichlorobenzene		----------NA----------				
120		hexachloroethane		----------NA----------				
121		benzyl chloride		----------NA----------				

		----------	True	Calc.	% Drift	----------		
122		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A212464.D M1A9178.M Fri Jul 30 10:58:34 2021 1A

Continuing Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V1A9190-CC9178
Lab FileID: 1A212783.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kr...21\v1a9190\1a212783.d Vial: 29
Acq On : 6 Aug 2021 8:48 pm Operator: edwardd
Sample : cc9178-50 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A9178.M (RTE Integrator)
Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Fri Jul 30 09:04:25 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert Butyl Alcohol-d9	1.000	1.000	0.0	67	0.00	3.29
2	1,4-dioxane	0.110	0.132	-20.0#	81	0.00	5.55
3	ethanol	0.126	0.172	-36.5#	97	0.00	2.70
4 M	tertiary butyl alcohol	1.170	1.119	4.4	66	0.00	3.35
5 I	pentafluorobenzene	1.000	1.000	0.0	74	0.00	4.53
6	chlorodifluoromethane	0.356	0.353	0.8	72	0.00	1.82
7	dichlorodifluoromethane	0.506	0.423	16.4	59	0.00	1.81
8	chloromethane	0.450	0.421	6.4	71	0.00	1.97
9	vinyl chloride	0.476	0.500	-5.0	74	0.00	2.07
	----------	True	Calc.	% Drift	----------		
10	bromomethane	50.000	56.283	-12.6	84	0.00	2.32
	----------	AvgRF	CCRF	% Dev	----------		
11	chloroethane	0.302	0.323	-7.0	84	0.00	2.41
12	trichlorofluoromethane	0.628	0.679	-8.1	77	0.00	2.60
13	ethyl ether	0.231	0.255	-10.4	82	0.00	2.80
14	acrolein	0.093	0.107	-15.1	86	0.00	2.90
15	freon 113	0.339	0.349	-2.9	77	0.00	2.98
16	1,1-dichloroethene	0.334	0.365	-9.3	83	0.00	2.98
17	acetone	0.059	0.066	-11.9	95	0.00	3.00
18	acetonitrile	0.037	0.039	-5.4	84	0.00	3.19
19	iodomethane	0.400	0.402	-0.5	63	0.00	3.10
20	iso-butyl alcohol	0.030	0.031	-3.3	85	0.00	4.68
21	carbon disulfide	0.916	0.856	6.6	71	0.00	3.17
22	methylene chloride	0.361	0.347	3.9	75	0.00	3.32
23	methyl acetate	0.098	0.098	0.0	78	0.00	3.20
24	methyl tert butyl ether	1.033	1.034	-0.1	72	0.00	3.50
25	trans-1,2-dichloroethene	0.351	0.336	4.3	70	0.00	3.51
26	hexane	0.504	0.494	2.0	72	0.00	3.69
27	di-isopropyl ether	1.082	1.166	-7.8	79	0.00	3.81
28	ethyl tert-butyl ether	1.109	1.118	-0.8	73	0.00	4.06
29	2-butanone	0.069	0.072	-4.3	76	0.00	4.18
30 M	1,1-dichloroethane	0.582	0.621	-6.7	78	0.00	3.82
31	chloroprene	0.508	0.520	-2.4	74	0.00	3.87
32	acrylonitrile	0.168	0.192	-14.3	83	0.00	3.47
33	vinyl acetate	0.093	0.091	2.2	72	0.00	3.79
34	ethyl acetate	0.085	0.088	-3.5	77	0.00	4.19
35	2,2-dichloropropane	0.546	0.463	15.2	65	0.00	4.22
36	cis-1,2-dichloroethene	0.382	0.387	-1.3	74	0.00	4.21
37	propionitrile	0.080	0.090	-12.5	84	0.00	4.23

Continuing Calibration Summary

Job Number: JD29301 **Sample:** V1A9190-CC9178
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 1A212783.D
Project: EPT, Ithaca, NY

38	methyl acrylate	0.083	0.087	-4.8	74	0.00	4.23
39	bromochloromethane	0.205	0.197	3.9	71	0.00	4.38
40	tetrahydrofuran	0.093	0.089	4.3	79	0.00	4.39
41	chloroform	0.657	0.628	4.4	75	0.00	4.43
42 S	dibromofluoromethane (s)	0.407	0.418	-2.7	75	0.00	4.55
43	methacrylonitrile	0.200	0.210	-5.0	78	0.00	4.34
44	1,1,1-trichloroethane	0.572	0.543	5.1	69	0.00	4.58
45	cyclohexane	0.515	0.488	5.2	69	0.00	4.64
46	1,1-dichloropropene	0.477	0.482	-1.0	75	0.00	4.69
47	carbon tetrachloride	0.531	0.484	8.9	67	0.00	4.70
48	isopropyl acetate	0.118	0.116	1.7	74	0.00	4.80
49	tert amyl alcohol	0.030	0.037	-23.3#	98	0.00	4.78
50 I	1,4-difluorobenzene	1.000	1.000	0.0	77	0.00	5.11
51 S	1,2-dichloroethane-d4 (s)	0.319	0.325	-1.9	79	0.00	4.80
52	tert-amyl methyl ether	0.825	0.774	6.2	73	0.00	4.89
53	2,2,4-trimethylpentane	0.690	0.679	1.6	77	0.00	4.90
54	n-butyl alcohol	0.016	0.016	0.0	78	0.00	5.16
55 M	benzene	0.993	0.966	2.7	76	0.00	4.84
56	heptane	0.143	0.132	7.7	70	0.00	5.01
57	1,2-dichloroethane	0.354	0.334	5.6	77	0.00	4.86
58	trichloroethene	0.262	0.253	3.4	73	0.00	5.31
59	ethyl acrylate	0.420	0.453	-7.9	82	0.00	5.32
60	2-nitropropane		----------NA----------				
61	2-chloroethyl vinyl ether	0.187	0.198	-5.9	79	0.00	5.89
62	methyl methacrylate	0.102	0.098	3.9	73	0.00	5.50
63	1,2-dichloropropane	0.242	0.251	-3.7	81	0.00	5.51
64	methylcyclohexane	0.441	0.440	0.2	74	0.00	5.51
65	dibromomethane	0.164	0.162	1.2	76	0.00	5.58
66	bromodichloromethane	0.347	0.333	4.0	75	0.00	5.70
67	cis-1,3-dichloropropene	0.414	0.402	2.9	74	0.00	6.04
68	epichlorohydrin	0.044	0.044	0.0	78	0.00	5.95
69	4-methyl-2-pentanone	0.144	0.159	-10.4	84	0.00	6.14
70	3-methyl-1-butanol	0.015	0.015	0.0	74	0.00	6.16
71 I	chlorobenzene-d5	1.000	1.000	0.0	80	0.00	7.54
72 S	toluene-d8 (s)	1.230	1.209	1.7	81	0.00	6.27
73	toluene	0.704	0.648	8.0	76	0.00	6.33
74	trans-1,3-dichloropropene	0.427	0.376	11.9	73	0.00	6.50
75	ethyl methacrylate	0.425	0.422	0.7	79	0.00	6.51
76	1,1,2-trichloroethane	0.209	0.210	-0.5	79	0.00	6.67
77	2-hexanone	0.163	0.174	-6.7	83	0.00	6.83
78	tetrachloroethene	0.352	0.302	14.2	69	0.00	6.77
79	1,3-dichloropropane	0.437	0.423	3.2	79	0.00	6.82
80	butyl acetate	0.245	0.248	-1.2	81	0.00	6.92
81	dibromochloromethane	0.328	0.282	14.0	70	0.00	7.01
82	1,2-dibromoethane	0.301	0.278	7.6	75	0.00	7.13
83	n-butyl ether	1.134	1.094	3.5	79	0.00	7.60
84	chlorobenzene	0.812	0.736	9.4	73	0.00	7.56
85	1,1,1,2-tetrachloroethane	0.302	0.266	11.9	71	0.00	7.63
86	ethylbenzene	1.329	1.233	7.2	76	0.00	7.64
87	m,p-xylene	0.531	0.485	8.7	74	0.00	7.75
88	o-xylene	0.524	0.487	7.1	75	0.00	8.11
89	butyl acrylate	0.578	0.591	-2.2	79	0.00	8.02
90	n-amyl acetate	0.255	0.244	4.3	76	0.00	8.23
91	styrene	0.885	0.843	4.7	76	0.00	8.13
92	bromoform	0.263	0.222	15.6	68	0.00	8.31
93	isopropylbenzene	1.339	1.236	7.7	74	0.00	8.45
94	cis-1,4-dichloro-2-butene	0.141	0.121	14.2	66	0.00	8.50

Continuing Calibration Summary

Job Number: JD29301 **Sample:** V1A9190-CC9178
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 1A212783.D
Project: EPT, Ithaca, NY

95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	79	0.00	9.75
96	S	4-bromofluorobenzene (s)	0.886	0.896	-1.1	80	0.00	8.62
97		bromobenzene	0.727	0.664	8.7	71	0.00	8.77
98		1,1,2,2-tetrachloroethane	0.764	0.754	1.3	77	0.00	8.73
99		trans-1,4-dichloro-2-bute	0.218	0.208	4.6	75	0.00	8.76
100		1,2,3-trichloropropane	0.266	0.237	10.9	75	0.00	8.79
101		n-propylbenzene	2.983	2.749	7.8	75	0.00	8.85
102		2-chlorotoluene	0.645	0.584	9.5	72	0.00	8.94
103		4-chlorotoluene	0.648	0.599	7.6	73	0.00	9.06
104		1,3,5-trimethylbenzene	2.121	1.925	9.2	73	0.00	9.02
105		tert-butylbenzene	1.904	1.687	11.4	71	0.00	9.33
106		1,2,4-trimethylbenzene	2.164	1.990	8.0	73	0.00	9.38
107		sec-butylbenzene	2.670	2.399	10.1	73	0.00	9.54
108		1,3-dichlorobenzene	1.320	1.204	8.8	73	0.00	9.67
109		p-isopropyltoluene	2.329	2.082	10.6	72	0.00	9.69
110		1,2,3-trimethylbenzene	2.206	2.030	8.0	75	0.00	9.79
111		1,4-dichlorobenzene	1.348	1.209	10.3	73	0.00	9.77
112		1,2-dichlorobenzene	1.231	1.138	7.6	73	0.00	10.13
113		n-butylbenzene	1.008	0.952	5.6	74	0.00	10.09
114		1,2-dibromo-3-chloropropa	0.249	0.217	12.9	69	0.00	10.90
115		1,3,5-trichlorobenzene	0.886	0.753	15.0	67	0.00	11.09
116		1,2,4-trichlorobenzene	0.708	0.612	13.6	65	0.00	11.73
117		hexachlorobutadiene	0.313	0.253	19.2	65	0.00	11.86
118		naphthalene	2.055	1.891	8.0	70	0.00	11.99
119		1,2,3-trichlorobenzene	0.610	0.540	11.5	69	0.00	12.22
120		hexachloroethane	0.401	0.343	14.5	68	0.00	10.40
121		benzyl chloride	1.579	1.220	22.7#	61	0.00	9.88
			True	Calc.	% Drift			
122		2-methylnaphthalene	25.000	16.337	34.7#	56	0.00	13.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A212464.D M1A9178.M Mon Aug 09 18:15:41 2021

Initial Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-ICC7429
Lab FileID: 3B164958.D

Response Factor Report MS3B

Method : C:\MSDCHEM\1\METHODS\M3B7429.M (RTE Integrator)
Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Calibration Files
1 =3B164953.D 4 =3B164955.D 100 =3B164959.D 50 =3B164958.D
20 =3B164957.D 200 =3B164960.D 8 =3B164956.D 0.5 =3B164952.D
2 =3B164954.D 0.2 =3B164951.D = =

Compound	1	4	100	50	20	200	8	0.5	2	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD											
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol	1.238	1.399	1.337	1.337	1.372	1.289	1.256		1.360		1.324	4.31
4) 1,4-dioxane		0.066	0.083	0.081	0.081	0.084	0.072				0.078	9.19
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane *This compound fails Initial Calibration crieria*	1.282	1.415	1.427	1.391	1.412	1.313	1.231		1.383		1.357	5.34
7) dichlorodifluoromethane	1.685	1.788	1.892	1.848	1.849	1.718	1.602		1.734		1.765	5.52
8) chloromethane	1.920	1.749	1.824	1.746	1.820	1.696	1.614		1.812		1.773	5.25
9) vinyl chloride	1.452	1.475	1.576	1.513	1.549	1.455	1.364	1.268	1.517		1.463	6.57
10) 1,3-butadiene	0.770	0.865	0.865	0.866	0.887	0.772	0.770	0.972	0.909		0.853	8.21
11) bromomethane		0.951	0.889	0.887	0.934	0.783	0.882		1.027		0.908	8.28
12) chloroethane	0.540	0.577	0.544	0.552	0.565	0.487	0.532		0.573		0.546	5.28
13) trichlorofluoromethane	1.393	1.411	1.480	1.464	1.470	1.348	1.345		1.466		1.422	3.92
14) vinyl bromide	0.728	0.683	0.681	0.678	0.694	0.629	0.635	0.872	0.664		0.696	10.38
15) ethyl ether	0.218	0.248	0.278	0.270	0.278	0.260	0.248		0.279		0.260	8.23
16) acrolein		0.077	0.109	0.110	0.101	0.107	0.086				0.098	13.93
17) freon 113	0.596	0.683	0.687	0.690	0.716	0.627	0.644		0.732		0.672	6.83
18) 1,1-dichloroethene	0.513	0.503	0.504	0.502	0.540	0.471	0.474	0.379	0.524		0.490	9.55
19) acetone	0.084	0.100	0.109	0.103	0.106	0.091	0.087		0.099		0.098	9.15
20) acetonitrile		0.146	0.149	0.151	0.154	0.141	0.135		0.142		0.145	4.52
21) iodomethane	1.099	1.156	1.207	1.204	1.242	1.139	1.105	1.061	1.111		1.147	5.23
22) carbon disulfide	2.193	2.196	2.210	2.205	2.272	2.036	2.065	2.198	2.143	2.056	2.158	3.66
23) methylene chloride												

0.605 0.597 0.617 0.617 0.631 0.582 0.582 0.607 0.606 0.605 2.68

24) methyl acetate
0.620 0.623 0.617 0.604 0.598 0.568 0.540 0.596 5.17

25) methyl tert butyl ether
2.375 2.393 2.405 2.397 2.451 2.312 2.177 2.253 2.477 2.385 2.363 3.84

26) trans-1,2-dichloroethene
0.624 0.537 0.501 0.498 0.516 0.463 0.460 0.465 0.544 0.512 10.19

27) hexane
0.373 0.377 0.409 0.405 0.411 0.380 0.370 0.406 0.391 4.57

28) di-isopropyl ether
2.129 2.290 2.319 2.282 2.344 2.184 2.089 2.149 2.226 2.006 2.202 4.98

29) 2-butanone
0.085 0.099 0.096 0.095 0.092 0.077 0.072 0.088 11.95

30) 1,1-dichloroethane
0.942 0.970 0.916 0.915 0.949 0.843 0.885 0.891 0.977 0.703 0.899 8.92

31) chloroprene
0.759 0.718 0.783 0.791 0.777 0.714 0.687 0.680 0.716 0.736 5.73

32) acrylonitrile
0.212 0.271 0.271 0.262 0.262 0.228 0.251 9.96

33) vinyl acetate
0.071 0.094 0.085 0.094 0.069 0.082 14.57

34) ethyl tert-butyl ether
2.148 2.244 2.464 2.407 2.391 2.387 2.122 2.116 2.221 2.278 5.97

35) ethyl acetate
0.086 0.121 0.110 0.119 0.114 0.096 0.108 12.81

36) 2,2-dichloropropane
1.200 1.090 1.069 1.078 1.112 1.005 1.016 1.124 1.214 1.056 1.097 6.31

37) cis-1,2-dichloroethene
0.616 0.553 0.550 0.549 0.575 0.516 0.511 0.686 0.591 0.572 9.47

38) propionitrile
0.093 0.114 0.120 0.121 0.125 0.115 0.107 0.100 0.112 9.79

39) methyl acrylate
0.039 0.103 0.098 0.096 0.100 0.070 0.084 29.75
----- Linear regression ----- Coefficient = 0.9994
Response Ratio = -0.00480 + 0.10273 *A

40) methacrylonitrile
0.245 0.281 0.275 0.263 0.269 0.235 0.261 6.91

41) bromochloromethane
0.331 0.318 0.313 0.311 0.321 0.297 0.282 0.228 0.312 0.302 10.23

42) tetrahydrofuran
0.244 0.268 0.269 0.276 0.279 0.259 0.247 0.275 0.265 4.98

43) chloroform
1.016 1.041 1.009 0.978 1.026 0.929 0.920 1.099 0.993 1.241 1.025 8.97

44) tert-Butyl Formate
0.378 0.380 0.454 0.443 0.462 0.364 0.408 0.413 9.73

45) dibromofluoromethane (s)
0.503 0.500 0.506 0.510 0.503 0.501 0.505 0.502 0.495 0.491 0.502 1.04

46) 1,1,1-trichloroethane
0.980 1.088 1.177 1.140 1.152 1.118 1.019 1.111 1.120 0.996 1.090 6.27

47) cyclohexane
1.053 1.009 1.044 1.041 1.044 0.979 0.944 0.984 0.994 1.010 3.73

48) isobutyl alcohol
0.144 0.165 0.161 0.159 0.158 0.137 0.136 0.151 7.97

49) 1,1-dichloropropene
0.673 0.681 0.670 0.677 0.724 0.635 0.637 0.556 0.658 0.657 7.01

50) carbon tetrachloride
0.875 0.929 0.969 0.960 0.978 0.908 0.877 0.879 0.892 0.919 4.53

51) tert-amyl alcohol
0.099 0.081 0.080 0.078 0.077 0.079 0.070 0.083 0.081 10.31

52) isopropyl acetate
0.109 0.147 0.143 0.143 0.142 0.123 0.135 11.32

53) I 1,4-difluorobenzene ----------ISTD----------

54) 1,2-dichloroethane-d4 (s)
0.419 0.421 0.389 0.412 0.416 0.384 0.428 0.433 0.417 0.420 0.414 3.78

55) n-butyl alcohol
0.020 0.024 0.024 0.024 0.024 0.018 0.020 0.022 11.39

56) 2,2,4-trimethylpentane
1.468 1.740 1.704 1.631 1.711 1.333 1.425 1.573 10.32

57) benzene
1.353 1.400 1.353 1.358 1.435 1.273 1.294 1.268 1.368 1.230 1.333 4.84

58) tert-amyl methyl ether
1.447 1.511 1.508 1.515 1.577 1.472 1.351 1.614 1.440 1.388 1.482 5.41

59) heptane
0.253 0.258 0.262 0.272 0.280 0.247 0.239 0.209 0.277 0.255 8.62

60) 1,2-dichloroethane
0.558 0.563 0.510 0.535 0.560 0.475 0.497 0.531 0.516 0.592 0.534 6.60

61) ethyl acrylate
0.550 0.577 0.578 0.593 0.577 0.507 0.428 0.544 10.75

62) trichloroethene
0.381 0.353 0.373 0.360 0.370 0.340 0.337 0.337 0.355 0.356 4.57

63) 2-chloroethyl vinyl ether
0.144 0.173 0.167 0.166 0.173 0.142 0.135 0.157 10.26

64) methyl methacrylate
0.114 0.112 0.116 0.114 0.091 0.110 9.40

65) methylcyclohexane
0.758 0.832 0.801 0.829 0.843 0.772 0.746 0.733 0.833 0.794 5.35

66) 1,2-dichloropropane
0.346 0.387 0.367 0.376 0.387 0.356 0.338 0.365 0.396 0.369 5.37

67) dibromomethane
0.212 0.251 0.242 0.244 0.262 0.234 0.226 0.269 0.242 7.63

68) bromodichloromethane
0.485 0.522 0.520 0.516 0.525 0.508 0.458 0.496 0.535 0.478 0.504 4.84

69) 2-nitropropane
0.110 0.123 0.123 0.122 0.131 0.129 0.109 0.136 0.123 7.66

70) epichlorohydrin
0.052 0.055 0.055 0.057 0.056 0.048 0.046 0.053 7.93

71) cis-1,3-dichloropropene
0.586 0.598 0.599 0.591 0.605 0.588 0.516 0.406 0.587 0.564 11.53

72) 4-methyl-2-pentanone
0.190 0.218 0.216 0.222 0.230 0.206 0.201 0.155 0.213 0.206 10.94

73) isoamyl alcohol
0.016 0.019 0.022 0.022 0.022 0.021 0.019 0.018 0.020 10.77

74) I chlorobenzene-d5 ----------ISTD----------

75) toluene-d8 (s)
1.247 1.263 1.255 1.248 1.261 1.272 1.261 1.262 1.241 1.270 1.258 0.80

76) toluene
0.786 0.873 0.897 0.895 0.896 0.861 0.821 0.713 0.854 0.835 0.843 6.91

77) ethyl methacrylate
0.437 0.558 0.584 0.586 0.603 0.560 0.522 0.500 0.544 10.12

78) trans-1,3-dichloropropene
0.521 0.576 0.577 0.588 0.596 0.550 0.533 0.439 0.544 0.547 8.74

79) 1,1,2-trichloroethane
0.270 0.328 0.307 0.312 0.318 0.299 0.284 0.270 0.297 0.298 6.92

80) tetrachloroethene
0.310 0.336 0.330 0.333 0.354 0.308 0.315 0.329 0.373 0.332 6.34

81) 2-hexanone
0.152 0.221 0.221 0.223 0.238 0.206 0.211 0.207 0.210 12.20

Initial Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-ICC7429
Lab FileID: 3B164958.D

82) 1,3-dichloropropane
0.506 0.565 0.547 0.568 0.588 0.518 0.546 0.552 0.598 0.554 5.36
83) butyl acetate
0.303 0.324 0.338 0.341 0.315 0.289 0.263 0.310 8.95
84) dibromochloromethane
0.385 0.430 0.462 0.454 0.455 0.450 0.400 0.390 0.459 0.432 7.26
85) 1,2-dibromoethane
0.358 0.429 0.449 0.443 0.449 0.434 0.401 0.407 0.391 0.418 7.45
86) n-butyl ether
1.427 1.709 1.741 1.746 1.751 1.677 1.548 1.472 1.625 1.633 7.56
87) chlorobenzene
0.959 1.004 0.998 1.000 1.038 0.956 0.927 0.934 0.973 0.859 0.965 5.23
88) 1,1,1,2-tetrachloroethane
0.460 0.484 0.501 0.510 0.497 0.468 0.452 0.459 0.482 0.479 4.33
89) ethylbenzene
1.567 1.760 1.693 1.709 1.770 1.586 1.600 1.671 1.714 1.674 4.44
90) m,p-xylene
0.617 0.688 0.668 0.666 0.687 0.635 0.617 0.540 0.639 0.640 7.24
91) o-xylene
1.402 1.523 1.593 1.565 1.579 1.503 1.421 1.397 1.560 1.505 5.22
92) styrene
0.974 1.066 1.100 1.112 1.148 1.056 1.065 0.992 1.088 1.067 5.20
93) butyl acrylate
0.901 0.934 0.950 0.943 0.911 0.791 0.860 0.898 6.29
94) n-amyl acetate
0.302 0.315 0.328 0.337 0.306 0.296 0.246 0.304 9.72
95) isopropylbenzene
1.874 1.962 2.159 2.137 2.122 2.051 1.862 1.819 1.887 1.986 6.69
96) bromoform
0.304 0.332 0.367 0.365 0.364 0.363 0.323 0.347 0.325 0.343 6.78
97) cis-1,4-dichloro-2-butene
0.223 0.217 0.231 0.236 0.208 0.198 0.202 0.216 6.69

98) I 1,4-dichlorobenzene-d ----------ISTD----------
99) 4-bromofluorobenzene (s)
0.768 0.787 0.831 0.793 0.782 0.826 0.813 0.757 0.783 0.772 0.791 3.12
100) 1,1,2,2-tetrachloroethane
0.977 1.041 1.067 1.069 1.096 1.065 0.935 0.927 0.998 1.019 6.10
101) trans-1,4-dichloro-2-butene
0.310 0.295 0.289 0.291 0.274 0.241 0.283 8.36
102) 1,2,3-trichloropropane
0.249 0.279 0.298 0.291 0.293 0.282 0.235 0.284 0.276 8.08
103) bromobenzene
0.816 0.770 0.838 0.804 0.829 0.799 0.754 0.648 0.849 0.789 7.77
104) n-propylbenzene
3.062 3.436 3.668 3.594 3.674 3.451 3.176 2.752 3.316 3.251 3.338 8.73
105) 2-chlorotoluene
0.651 0.754 0.814 0.783 0.800 0.774 0.677 0.697 0.744 8.22
106) 4-chlorotoluene
1.989 2.200 2.198 2.128 2.199 2.126 2.007 1.806 2.055 1.947 2.065 6.29
107) 1,3,5-trimethylbenzene
2.361 2.608 3.042 2.964 2.949 2.897 2.556 2.712 2.761 8.67
108) tert-butylbenzene
2.173 2.321 2.938 2.755 2.629 2.811 2.217 2.144 2.498 12.80
109) 1,2,4-trimethylbenzene
2.484 2.756 3.085 2.933 2.960 2.928 2.590 2.412 2.748 2.274 2.717 9.87
110) sec-butylbenzene
3.400 3.653 4.403 4.126 4.100 4.233 3.429 3.504 3.856 10.41
111) p-isopropyltoluene
2.766 3.144 3.746 3.523 3.473 3.592 2.990 3.106 3.293 10.31

Initial Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-ICC7429
Lab FileID: 3B164958.D

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112)  1,2,3-trimethylbenzene  *This compound fails Initial Calibration crieria*
       2.857 3.160 3.624 3.515 3.455 3.483 2.975       3.189        3.282    8.46
113)  1,3-dichlorobenzene
       1.549 1.627 1.598 1.587 1.608 1.534 1.468 1.422 1.579 1.425  1.540    4.92
114)  1,4-dichlorobenzene
       1.717 1.698 1.580 1.606 1.645 1.520 1.560 1.547 1.671        1.616    4.34
115)  1,2-dichlorobenzene
       1.771 1.775 1.846 1.803 1.843 1.785 1.660 1.450 1.756        1.743    7.04
116)  benzyl chloride
       1.766 1.828 1.962 1.931 1.950 1.951 1.671 1.605 1.743        1.823    7.36
117)  n-butylbenzene
       1.374 1.544 1.732 1.677 1.667 1.699 1.443       1.371        1.563    9.61
118)  hexachloroethane
             0.474 0.708 0.654 0.591 0.699 0.438       0.454        0.574   20.54
             ----- Linear regression -----  Coefficient =  0.9975
               Response Ratio = -0.01801 + 0.69747 *A

119)  1,2-dibromo-3-chloropropane
             0.423 0.436 0.432 0.429 0.441 0.394       0.434        0.427    3.71
120)  1,3,5-trichlorobenzene
       1.719 1.736 1.844 1.827 1.838 1.837 1.606 1.669 1.824        1.767    4.97
121)  2-ethylhexyl acrylate  *This compound fails Initial Calibration crieria*
             0.964 1.392 1.275 1.198 1.549 0.948                    1.221   19.41
122)  1,2,4-trichlorobenzene
       1.980 2.059 2.097 2.099 2.159 1.997 1.909 1.823 2.092 1.794  2.001    6.21
123)  hexachlorobutadiene
       0.874 0.826 0.915 0.889 0.904 0.883 0.779 0.842 0.881 0.698  0.849    7.85
124)  naphthalene
       5.638 6.180 6.247 6.200 6.480 5.858 5.603 5.310 5.998 5.341  5.886    6.82
125)  1,2,3-trichlorobenzene
       2.078 2.242 2.291 2.279 2.360 2.130 2.035 1.992 2.252 2.211  2.187    5.56
126)  2-methylnaphthalene
             2.814 4.115 3.853 3.680 3.837 2.758                    3.510   16.47
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3B7429.M         Mon Apr 26 09:29:46 2021
```

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-ICV7429
Lab FileID: 3B164963.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B7429\3B164963.D Vial: 16
Acq On : 23 Apr 2021 12:08 am Operator: PrashanS
Sample : ICV7429-50 Inst : MS3B
Misc : MS49876,V3B7429,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7429.M (RTE Integrator)
Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Mon Apr 26 09:28:47 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	100	0.00	7.90
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.324	1.344	-1.5	100	0.00	8.04
4		1,4-dioxane	0.078	0.081	-3.8	99	0.00	12.11
5	I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	10.45
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane	1.765	1.429	19.0	79	0.00	4.10
8		chloromethane	1.773	1.415	20.2	82	0.00	4.51
9		vinyl chloride	1.463	1.393	4.8	94	-0.01	4.78
10		1,3-butadiene	0.853	0.865	-1.4	102	0.00	4.82
11		bromomethane	0.908	0.898	1.1	103	0.00	5.48
12		chloroethane	0.546	0.515	5.7	95	-0.01	5.66
13		trichlorofluoromethane	1.422	1.334	6.2	93	0.00	6.22
14		vinyl bromide	0.696	0.708	-1.7	106	0.00	6.06
15		ethyl ether	0.260	0.281	-8.1	106	0.00	6.67
16		acrolein	0.098	0.126	-28.6	117	0.00	6.91
17		freon 113	0.672	0.614	8.6	90	0.00	7.16
18		1,1-dichloroethene	0.490	0.506	-3.3	102	-0.01	7.13
19		acetone	0.098	0.085	13.3	84	0.00	7.13
20		acetonitrile		----------NA----------				
21		iodomethane	1.147	1.177	-2.6	99	0.00	7.43
22		carbon disulfide	2.158	2.159	-0.0	100	0.00	7.60
23		methylene chloride	0.605	0.612	-1.2	101	0.00	7.96
24		methyl acetate	0.596	0.601	-0.8	99	0.00	7.68
25		methyl tert butyl ether	2.363	2.403	-1.7	102	0.00	8.39
26		trans-1,2-dichloroethene	0.512	0.488	4.7	100	0.00	8.42
27		hexane	0.391	0.399	-2.0	100	0.00	8.83
28		di-isopropyl ether	2.202	2.210	-0.4	98	0.00	9.07
29		2-butanone	0.088	0.096	-9.1	102	0.00	9.77
30		1,1-dichloroethane	0.899	0.953	-6.0	106	0.00	9.06
31		chloroprene	0.736	0.842	-14.4	108	0.00	9.18
32		acrylonitrile		----------NA----------				
33		vinyl acetate	0.082	0.083	-1.2	90	0.00	9.01
34		ethyl tert-butyl ether	2.278	2.337	-2.6	99	0.00	9.58
35		ethyl acetate	0.108	0.113	-4.6	105	0.00	9.81
36		2,2-dichloropropane	1.097	1.034	5.7	97	0.00	9.89
37		cis-1,2-dichloroethene	0.572	0.568	0.7	105	0.00	9.84
38		propionitrile	0.112	0.125	-11.6	105	0.00	9.83
		----------	True	Calc.	% Drift	----------		
39		methyl acrylate	50.000	49.807	0.4	101	0.00	9.90

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-ICV7429
Lab FileID: 3B164963.D

			AvgRF	CCRF	% Dev			
40		methacrylonitrile	0.261	0.275	-5.4	101	0.00	10.06
41		bromochloromethane	0.302	0.320	-6.0	105	0.00	10.17
42		tetrahydrofuran	0.265	0.278	-4.9	102	0.00	10.20
43		chloroform	1.025	1.065	-3.9	111	0.00	10.27
44		tert-Butyl Formate	0.413	0.423	-2.4	95	0.00	10.30
45	S	dibromofluoromethane (s)	0.502	0.498	0.8	99	0.00	10.47
46		1,1,1-trichloroethane	1.090	1.129	-3.6	101	0.00	10.55
47		cyclohexane	1.010	1.083	-7.2	106	0.00	10.68
48		isobutyl alcohol	0.151	0.159	-5.3	100	0.00	10.90
49		1,1-dichloropropene	0.657	0.686	-4.4	103	0.00	10.73
50		carbon tetrachloride	0.919	0.945	-2.8	100	0.00	10.77
51		tert-amyl alcohol	0.081	0.082	-1.2	107	0.00	10.86
52		isopropyl acetate	0.135	0.142	-5.2	101	0.00	10.90
53	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	11.43
54	S	1,2-dichloroethane-d4 (s)	0.414	0.396	4.3	98	0.00	10.92
55		n-butyl alcohol	0.022	0.023	-4.5	99	0.00	11.48
56		2,2,4-trimethylpentane	1.573	1.645	-4.6	98	0.00	11.11
57		benzene	1.333	1.388	-4.1	104	0.00	10.99
58		tert-amyl methyl ether	1.482	1.448	2.3	97	0.00	11.09
59		heptane	0.255	0.257	-0.8	96	0.00	11.29
60		1,2-dichloroethane	0.534	0.518	3.0	98	0.00	11.02
61		ethyl acrylate	0.544	0.592	-8.8	104	0.00	11.75
62		trichloroethene	0.356	0.367	-3.1	104	0.00	11.76
63		2-chloroethyl vinyl ether	0.157	0.189	-20.4	115	0.00	12.58
64		methyl methacrylate	0.110	0.114	-3.6	103	0.00	12.02
65		methylcyclohexane	0.794	0.789	0.6	97	0.00	12.08
66		1,2-dichloropropane	0.369	0.367	0.5	99	0.00	12.06
67		dibromomethane	0.242	0.244	-0.8	102	0.00	12.17
68		bromodichloromethane	0.504	0.517	-2.6	102	0.00	12.34
69		2-nitropropane	0.123	0.127	-3.3	106	0.00	12.52
70		epichlorohydrin	0.053	0.060	-13.2	110	0.00	12.66
71		cis-1,3-dichloropropene	0.564	0.575	-2.0	99	0.00	12.82
72		4-methyl-2-pentanone	0.206	0.229	-11.2	104	0.00	12.91
73		isoamyl alcohol	0.020	0.022	-10.0	103	0.00	12.92
74	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	14.78
75	S	toluene-d8 (s)	1.258	1.267	-0.7	102	0.00	13.15
76		toluene	0.843	0.918	-8.9	103	0.00	13.23
77		ethyl methacrylate	0.544	0.583	-7.2	100	0.00	13.42
78		trans-1,3-dichloropropene	0.547	0.603	-10.2	103	0.00	13.43
79		1,1,2-trichloroethane	0.298	0.318	-6.7	103	0.00	13.66
80		tetrachloroethene		----------NA----------				
81		2-hexanone	0.210	0.228	-8.6	103	0.00	13.82
82		1,3-dichloropropane	0.554	0.569	-2.7	101	0.00	13.86
83		butyl acetate	0.310	0.349	-12.6	104	0.00	13.92
84		dibromochloromethane	0.432	0.475	-10.0	105	0.00	14.13
85		1,2-dibromoethane	0.418	0.465	-11.2	106	0.00	14.29
86		n-butyl ether	1.633	1.797	-10.0	104	0.00	14.77
87		chlorobenzene	0.965	1.016	-5.3	102	0.00	14.81
88		1,1,1,2-tetrachloroethane	0.479	0.516	-7.7	102	0.00	14.88
89		ethylbenzene	1.674	1.757	-5.0	104	0.00	14.88
90		m,p-xylene	0.640	0.681	-6.4	103	0.00	15.01
91		o-xylene	1.505	1.607	-6.8	103	0.00	15.44
92		styrene	1.067	1.142	-7.0	103	0.00	15.45
93		butyl acrylate	0.898	0.975	-8.6	103	0.00	15.25
94		n-amyl acetate	0.304	0.332	-9.2	102	0.00	15.47
95		isopropylbenzene	1.986	2.160	-8.8	102	0.00	15.81

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Sample: V3B7429-ICV7429
Lab FileID: 3B164963.D

96		bromoform	0.343	0.376	-9.6	104	0.00	15.70
97		cis-1,4-dichloro-2-butene	0.216	0.231	-6.9	101	0.00	15.84
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	17.28
99	S	4-bromofluorobenzene (s)	0.791	0.808	-2.1	104	0.00	16.04
100		1,1,2,2-tetrachloroethane	1.019	1.075	-5.5	103	0.00	16.10
101		trans-1,4-dichloro-2-bute	0.283	0.308	-8.8	109	0.00	16.13
102		1,2,3-trichloropropane	0.276	0.302	-9.4	106	0.00	16.19
103		bromobenzene	0.789	0.833	-5.6	106	0.00	16.23
104		n-propylbenzene	3.338	3.605	-8.0	102	0.00	16.26
105		2-chlorotoluene	0.744	0.781	-5.0	102	0.00	16.40
106		4-chlorotoluene	2.065	2.153	-4.3	103	0.00	16.52
107		1,3,5-trimethylbenzene	2.761	2.975	-7.8	103	0.00	16.42
108		tert-butylbenzene	2.498	2.751	-10.1	102	0.00	16.78
109		1,2,4-trimethylbenzene	2.717	2.900	-6.7	101	0.00	16.84
110		sec-butylbenzene	3.856	4.120	-6.8	102	0.00	17.01
111		p-isopropyltoluene	3.293	3.489	-6.0	101	0.00	17.16
112		1,2,3-trimethylbenzene		----------NA----------				
113		1,3-dichlorobenzene	1.540	1.635	-6.2	105	0.00	17.20
114		1,4-dichlorobenzene	1.616	1.661	-2.8	106	0.00	17.30
115		1,2-dichlorobenzene	1.743	1.808	-3.7	102	0.00	17.68
116		benzyl chloride	1.823	2.014	-10.5	107	0.00	17.39
117		n-butylbenzene	1.563	1.681	-7.5	102	0.00	17.58
		----------	True	Calc.	% Drift	----------		
118		hexachloroethane	50.000	47.583	4.8	101	0.00	18.00
		----------	AvgRF	CCRF	% Dev	----------		
119		1,2-dibromo-3-chloropropa	0.427	0.419	1.9	99	0.00	18.45
120		1,3,5-trichlorobenzene	1.767	1.815	-2.7	101	0.00	18.65
121		2-ethylhexyl acrylate		----------NA----------				
122		1,2,4-trichlorobenzene	2.001	2.071	-3.5	101	0.00	19.27
123		hexachlorobutadiene	0.849	0.859	-1.2	99	0.00	19.37
124		naphthalene	5.886	6.244	-6.1	103	0.00	19.55
125		1,2,3-trichlorobenzene	2.187	2.301	-5.2	103	0.00	19.77
126		2-methylnaphthalene	3.510	4.042	-15.2	107	0.00	20.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3B164958.D M3B7429.M Mon Apr 26 09:29:34 2021

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Sample: V3B7429-ICV7429
Lab FileID: 3B164964.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B7429\3B164964.D Vial: 17
Acq On : 23 Apr 2021 12:37 am Operator: PrashanS
Sample : ICV7429-50 Inst : MS3B
Misc : MS49876,V3B7429,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7429.M (RTE Integrator)
Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Apr 23 10:43:13 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	105	0.00	7.90
2		ethanol		----------	NA	----------		
3		tertiary butyl alcohol		----------	NA	----------		
4		1,4-dioxane		----------	NA	----------		
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.45
6		chlorodifluoromethane	1.357	1.841	-35.7#	139	-0.01	4.11
7		dichlorodifluoromethane		----------	NA	----------		
8		chloromethane		----------	NA	----------		
9		vinyl chloride		----------	NA	----------		
10		1,3-butadiene		----------	NA	----------		
11		bromomethane		----------	NA	----------		
12		chloroethane		----------	NA	----------		
13		trichlorofluoromethane		----------	NA	----------		
14		vinyl bromide		----------	NA	----------		
15		ethyl ether		----------	NA	----------		
16		acrolein		----------	NA	----------		
17		freon 113		----------	NA	----------		
18		1,1-dichloroethene		----------	NA	----------		
19		acetone		----------	NA	----------		
20		acetonitrile	0.145	0.151	-4.1	105	0.00	7.59
21		iodomethane		----------	NA	----------		
22		carbon disulfide		----------	NA	----------		
23		methylene chloride		----------	NA	----------		
24		methyl acetate		----------	NA	----------		
25		methyl tert butyl ether		----------	NA	----------		
26		trans-1,2-dichloroethene		----------	NA	----------		
27		hexane		----------	NA	----------		
28		di-isopropyl ether		----------	NA	----------		
29		2-butanone		----------	NA	----------		
30		1,1-dichloroethane		----------	NA	----------		
31		chloroprene		----------	NA	----------		
32		acrylonitrile	0.251	0.277	-10.4	107	0.00	8.27
33		vinyl acetate		----------	NA	----------		
34		ethyl tert-butyl ether		----------	NA	----------		
35		ethyl acetate		----------	NA	----------		
36		2,2-dichloropropane		----------	NA	----------		
37		cis-1,2-dichloroethene		----------	NA	----------		
38		propionitrile		----------	NA	----------		
		----------	True	Calc.	% Drift	----------		
39		methyl acrylate		----------	NA	----------		

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-ICV7429
Lab FileID: 3B164964.D

			AvgRF	CCRF	% Dev			
40		methacrylonitrile		----------NA----------				
41		bromochloromethane		----------NA----------				
42		tetrahydrofuran		----------NA----------				
43		chloroform		----------NA----------				
44		tert-Butyl Formate		----------NA----------				
45	S	dibromofluoromethane (s)	0.502	0.504	-0.4	104	0.00	10.48
46		1,1,1-trichloroethane		----------NA----------				
47		cyclohexane		----------NA----------				
48		isobutyl alcohol		----------NA----------				
49		1,1-dichloropropene		----------NA----------				
50		carbon tetrachloride		----------NA----------				
51		tert-amyl alcohol		----------NA----------				
52		isopropyl acetate		----------NA----------				
53	I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00	11.43
54	S	1,2-dichloroethane-d4 (s)	0.414	0.413	0.2	103	0.00	10.92
55		n-butyl alcohol		----------NA----------				
56		2,2,4-trimethylpentane		----------NA----------				
57		benzene		----------NA----------				
58		tert-amyl methyl ether		----------NA----------				
59		heptane		----------NA----------				
60		1,2-dichloroethane		----------NA----------				
61		ethyl acrylate		----------NA----------				
62		trichloroethene		----------NA----------				
63		2-chloroethyl vinyl ether		----------NA----------				
64		methyl methacrylate		----------NA----------				
65		methylcyclohexane		----------NA----------				
66		1,2-dichloropropane		----------NA----------				
67		dibromomethane		----------NA----------				
68		bromodichloromethane		----------NA----------				
69		2-nitropropane		----------NA----------				
70		epichlorohydrin		----------NA----------				
71		cis-1,3-dichloropropene		----------NA----------				
72		4-methyl-2-pentanone		----------NA----------				
73		isoamyl alcohol		----------NA----------				
74	I	chlorobenzene-d5	1.000	1.000	0.0	99	0.00	14.78
75	S	toluene-d8 (s)	1.258	1.267	-0.7	100	0.00	13.15
76		toluene		----------NA----------				
77		ethyl methacrylate		----------NA----------				
78		trans-1,3-dichloropropene		----------NA----------				
79		1,1,2-trichloroethane		----------NA----------				
80		tetrachloroethene	0.332	0.342	-3.0	102	0.00	13.83
81		2-hexanone		----------NA----------				
82		1,3-dichloropropane		----------NA----------				
83		butyl acetate		----------NA----------				
84		dibromochloromethane		----------NA----------				
85		1,2-dibromoethane		----------NA----------				
86		n-butyl ether		----------NA----------				
87		chlorobenzene		----------NA----------				
88		1,1,1,2-tetrachloroethane		----------NA----------				
89		ethylbenzene		----------NA----------				
90		m,p-xylene		----------NA----------				
91		o-xylene		----------NA----------				
92		styrene		----------NA----------				
93		butyl acrylate		----------NA----------				
94		n-amyl acetate		----------NA----------				
95		isopropylbenzene		----------NA----------				

Initial Calibration Verification

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7429-ICV7429
Lab FileID: 3B164964.D

96		bromoform		----------NA----------				
97		cis-1,4-dichloro-2-butene		----------NA----------				
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	17.28
99	S	4-bromofluorobenzene (s)	0.791	0.769	2.8	103	0.00	16.04
100		1,1,2,2-tetrachloroethane		----------NA----------				
101		trans-1,4-dichloro-2-bute		----------NA----------				
102		1,2,3-trichloropropane		----------NA----------				
103		bromobenzene		----------NA----------				
104		n-propylbenzene		----------NA----------				
105		2-chlorotoluene		----------NA----------				
106		4-chlorotoluene		----------NA----------				
107		1,3,5-trimethylbenzene		----------NA----------				
108		tert-butylbenzene		----------NA----------				
109		1,2,4-trimethylbenzene		----------NA----------				
110		sec-butylbenzene		----------NA----------				
111		p-isopropyltoluene		----------NA----------				
112		1,2,3-trimethylbenzene	3.282	4.482	-36.6#	135	0.00	17.29
113		1,3-dichlorobenzene		----------NA----------				
114		1,4-dichlorobenzene		----------NA----------				
115		1,2-dichlorobenzene		----------NA----------				
116		benzyl chloride		----------NA----------				
117		n-butylbenzene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
118		hexachloroethane		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
119		1,2-dibromo-3-chloropropa		----------NA----------				
120		1,3,5-trichlorobenzene		----------NA----------				
121		2-ethylhexyl acrylate		----------NA----------				
122		1,2,4-trichlorobenzene		----------NA----------				
123		hexachlorobutadiene		----------NA----------				
124		naphthalene		----------NA----------				
125		1,2,3-trichlorobenzene		----------NA----------				
126		2-methylnaphthalene		----------NA----------				

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

3B164958.D M3B7429.M Fri Apr 23 17:37:15 2021

Continuing Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7507-CC7429
Lab FileID: 3B166485.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kr...21\v3b7507\3b166485.d Vial: 8
Acq On : 9 Aug 2021 9:16 am Operator: jons2
Sample : cc7429-20 Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7429.M (RTE Integrator)
Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Apr 23 10:43:13 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	99	0.00	7.90
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.324	1.387	-4.8	100	0.00	8.04
4		1,4-dioxane	0.078	0.097	-24.4#	120	0.00	12.11
5	I	pentafluorobenzene	1.000	1.000	0.0	118	0.00	10.45
6		chlorodifluoromethane	1.357	1.256	7.4	105	-0.01	4.11
7		dichlorodifluoromethane	1.765	1.240	29.7#	79	0.00	4.11
8		chloromethane	1.773	1.467	17.3	95	0.00	4.51
9		vinyl chloride	1.463	1.339	8.5	102	0.00	4.79
10		1,3-butadiene	0.853	0.726	14.9	97	0.01	4.83
11		bromomethane	0.908	1.057	-16.4	133	0.01	5.49
12		chloroethane	0.546	0.567	-3.8	118	0.03	5.70
13		trichlorofluoromethane	1.346	1.427	-6.0	114	0.00	6.22
14		vinyl bromide		----------NA----------				
15		ethyl ether	0.260	0.263	-1.2	111	0.00	6.67
16		acrolein	0.098	0.111	-13.3	129	0.00	6.91
17		freon 113	0.672	0.761	-13.2	125	0.00	7.17
18		1,1-dichloroethene	0.490	0.531	-8.4	116	0.00	7.15
19		acetone	0.098	0.104	-6.1	115	0.00	7.13
20		acetonitrile	0.145	0.137	5.5	105	0.02	7.61
21		iodomethane	1.147	1.302	-13.5	124	0.00	7.43
22		carbon disulfide	2.158	2.130	1.3	110	0.00	7.60
23		methylene chloride	0.605	0.669	-10.6	125	0.00	7.96
24		methyl acetate	0.596	0.499	16.3	97	0.00	7.69
25		methyl tert butyl ether	2.363	2.277	3.6	109	-0.01	8.38
26		trans-1,2-dichloroethene	0.512	0.546	-6.6	125	0.00	8.42
27		hexane	0.391	0.357	8.7	102	0.00	8.84
28		di-isopropyl ether	2.202	2.146	2.5	108	0.00	9.08
29		2-butanone	0.088	0.090	-2.3	112	0.00	9.77
30		1,1-dichloroethane	0.899	0.977	-8.7	121	0.00	9.06
31		chloroprene	0.736	0.690	6.3	105	0.00	9.18
32		acrylonitrile	0.251	0.244	2.8	109	0.01	8.29
33		vinyl acetate	0.082	0.102	-24.4#	143	0.00	9.01
34		ethyl tert-butyl ether	2.278	2.256	1.0	111	0.00	9.58
35		ethyl acetate	0.108	0.103	4.6	101	0.00	9.81
36		2,2-dichloropropane	1.097	1.168	-6.5	124	0.00	9.89
37		cis-1,2-dichloroethene	0.572	0.604	-5.6	124	0.00	9.84
38		propionitrile	0.112	0.113	-0.9	107	0.00	9.83
		----------	True	Calc.	% Drift	----------		
39		methyl acrylate	20.000	19.219	3.9	106	0.00	9.90

Continuing Calibration Summary

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V3B7507-CC7429
Lab FileID: 3B166485.D

			AvgRF	CCRF	% Dev			
40		methacrylonitrile	0.261	0.253	3.1	113	0.00	10.05
41		bromochloromethane	0.302	0.355	-17.5	130	0.00	10.17
42		tetrahydrofuran	0.265	0.227	14.3	96	0.00	10.20
43		chloroform	1.025	0.982	4.2	113	0.00	10.27
44		tert-Butyl Formate	0.413	0.752	-82.1#	200#	-0.01	10.29
45	S	dibromofluoromethane (s)	0.502	0.511	-1.8	120	0.00	10.47
46		1,1,1-trichloroethane	1.090	1.142	-4.8	117	0.00	10.54
47		cyclohexane	1.010	1.041	-3.1	118	0.00	10.68
48		isobutyl alcohol	0.151	0.140	7.3	104	0.00	10.90
49		1,1-dichloropropene	0.657	0.667	-1.5	109	0.00	10.73
50		carbon tetrachloride	0.919	1.044	-13.6	126	0.00	10.76
51		tert-amyl alcohol	0.081	0.075	7.4	116	0.00	10.86
52		isopropyl acetate	0.135	0.139	-3.0	115	0.00	10.91
53	I	1,4-difluorobenzene	1.000	1.000	0.0	121	0.00	11.43
54	S	1,2-dichloroethane-d4 (s)	0.414	0.376	9.2	109	0.00	10.92
55		n-butyl alcohol	0.022	0.021	4.5	104	0.00	11.47
56		2,2,4-trimethylpentane	1.573	1.460	7.2	108	0.00	11.10
57		benzene	1.333	1.364	-2.3	115	0.00	10.99
58		tert-amyl methyl ether	1.482	1.586	-7.0	121	0.00	11.09
59		heptane	0.255	0.218	14.5	94	0.00	11.28
60		1,2-dichloroethane	0.534	0.520	2.6	112	0.00	11.01
61		ethyl acrylate	0.544	0.505	7.2	103	0.00	11.75
62		trichloroethene	0.356	0.355	0.3	116	0.00	11.76
63		2-chloroethyl vinyl ether	0.157	0.266	-69.4#	194	0.00	12.58
64		methyl methacrylate	0.110	0.103	6.4	108	0.00	12.02
65		methylcyclohexane	0.794	0.766	3.5	110	0.00	12.08
66		1,2-dichloropropane	0.369	0.372	-0.8	116	0.00	12.05
67		dibromomethane	0.242	0.265	-9.5	122	0.00	12.17
68		bromodichloromethane	0.504	0.527	-4.6	121	0.00	12.34
69		2-nitropropane	0.123	0.130	-5.7	120	0.00	12.52
70		epichlorohydrin	0.053	0.052	1.9	110	0.00	12.67
71		cis-1,3-dichloropropene	0.564	0.606	-7.4	121	0.00	12.82
72		4-methyl-2-pentanone	0.206	0.222	-7.8	117	0.00	12.91
73		isoamyl alcohol	0.020	0.023	-15.0	124	0.00	12.92
74	I	chlorobenzene-d5	1.000	1.000	0.0	122	0.00	14.78
75	S	toluene-d8 (s)	1.258	1.187	5.6	114	0.00	13.15
76		toluene	0.843	0.873	-3.6	118	0.00	13.23
77		ethyl methacrylate	0.544	0.524	3.7	106	0.00	13.42
78		trans-1,3-dichloropropene	0.547	0.578	-5.7	118	0.00	13.43
79		1,1,2-trichloroethane	0.298	0.312	-4.7	119	0.00	13.66
80		tetrachloroethene	0.332	0.343	-3.3	118	0.00	13.83
81		2-hexanone	0.210	0.215	-2.4	110	0.00	13.82
82		1,3-dichloropropane	0.554	0.594	-7.2	123	0.00	13.86
83		butyl acetate	0.310	0.295	4.8	105	0.00	13.93
84		dibromochloromethane	0.432	0.478	-10.6	128	0.00	14.13
85		1,2-dibromoethane	0.418	0.437	-4.5	118	0.00	14.29
86		n-butyl ether	1.633	1.564	4.2	109	0.00	14.77
87		chlorobenzene	0.965	1.045	-8.3	122	0.00	14.81
88		1,1,1,2-tetrachloroethane	0.479	0.553	-15.4	135	0.00	14.88
89		ethylbenzene	1.674	1.702	-1.7	117	0.00	14.88
90		m,p-xylene	0.640	0.678	-5.9	120	0.00	15.01
91		o-xylene	1.505	1.529	-1.6	118	0.00	15.44
92		styrene	1.067	1.153	-8.1	122	0.00	15.45
93		butyl acrylate	0.898	0.846	5.8	109	0.00	15.25
94		n-amyl acetate	0.304	0.375	-23.4#	135	0.00	15.47
95		isopropylbenzene	1.986	2.084	-4.9	119	0.00	15.81

Continuing Calibration Summary

Job Number: JD29301 **Sample:** V3B7507-CC7429
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 3B166485.D
Project: EPT, Ithaca, NY

96		bromoform	0.343	0.448	-30.6#	150	0.00	15.70
97		cis-1,4-dichloro-2-butene	0.216	0.235	-8.8	121	0.00	15.84
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	130	0.00	17.27
99	S	4-bromofluorobenzene (s)	0.791	0.700	11.5	116	0.00	16.03
100		1,1,2,2-tetrachloroethane	1.019	1.070	-5.0	127	0.00	16.10
101		trans-1,4-dichloro-2-bute	0.283	0.270	4.6	121	0.00	16.13
102		1,2,3-trichloropropane	0.276	0.289	-4.7	129	0.00	16.19
103		bromobenzene	0.789	0.849	-7.6	133	0.00	16.23
104		n-propylbenzene	3.338	3.352	-0.4	119	0.00	16.26
105		2-chlorotoluene	0.744	0.798	-7.3	130	0.00	16.40
106		4-chlorotoluene	2.065	2.010	2.7	119	0.00	16.52
107		1,3,5-trimethylbenzene	2.761	2.675	3.1	118	0.00	16.42
108		tert-butylbenzene	2.498	2.466	1.3	122	0.00	16.78
109		1,2,4-trimethylbenzene	2.717	2.721	-0.1	120	0.00	16.84
110		sec-butylbenzene	3.856	3.734	3.2	119	0.00	17.01
111		p-isopropyltoluene	3.293	3.248	1.4	122	0.00	17.15
112		1,2,3-trimethylbenzene	3.282	3.167	3.5	119	0.00	17.29
113		1,3-dichlorobenzene	1.540	1.652	-7.3	134	0.00	17.20
114		1,4-dichlorobenzene	1.616	1.743	-7.9	138	0.00	17.30
115		1,2-dichlorobenzene	1.743	1.935	-11.0	137	0.00	17.68
116		benzyl chloride	1.823	2.478	-35.9#	165	0.00	17.39
117		n-butylbenzene	1.563	1.564	-0.1	122	0.00	17.58
		----------	True	Calc.	% Drift	----------		
118		hexachloroethane	20.000	20.487	-2.4	147	0.00	18.00
		----------	AvgRF	CCRF	% Dev	----------		
119		1,2-dibromo-3-chloropropa	0.427	0.458	-7.3	139	0.00	18.45
120		1,3,5-trichlorobenzene	1.767	2.011	-13.8	142	0.00	18.65
121		2-ethylhexyl acrylate	1.221	0.969	20.6#	105	0.00	19.24
122		1,2,4-trichlorobenzene	2.001	2.250	-12.4	136	0.00	19.27
123		hexachlorobutadiene	0.849	0.872	-2.7	126	0.00	19.37
124		naphthalene	5.886	6.354	-8.0	128	0.00	19.55
125		1,2,3-trichlorobenzene	2.187	2.376	-8.6	131	0.00	19.77
126		2-methylnaphthalene	3.510	3.304	5.9	117	0.00	20.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3B164957.D M3B7429.M Tue Aug 10 12:26:12 2021

Run Sequence Report

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Run ID: V1A9178	**Method:** EPA 624.1	**Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A9178-BFB	1A212455.D	07/29/21 09:41	n/a	BFB Tune
V1A9178-IC9178	1A212457.D	07/29/21 11:46	n/a	Initial cal 0.2
V1A9178-IC9178	1A212458.D	07/29/21 12:11	n/a	Initial cal 0.5
V1A9178-IC9178	1A212459.D	07/29/21 12:36	n/a	Initial cal 1
V1A9178-IC9178	1A212460.D	07/29/21 13:01	n/a	Initial cal 2
V1A9178-IC9178	1A212461.D	07/29/21 13:26	n/a	Initial cal 4
V1A9178-IC9178	1A212462.D	07/29/21 13:51	n/a	Initial cal 8
V1A9178-IC9178	1A212463.D	07/29/21 14:16	n/a	Initial cal 20
V1A9178-ICC9178	1A212464.D	07/29/21 14:41	n/a	Initial cal 50
V1A9178-IC9178	1A212465.D	07/29/21 15:06	n/a	Initial cal 100
V1A9178-IC9178	1A212466.D	07/29/21 15:31	n/a	Initial cal 200
V1A9178-ICV9178	1A212469.D	07/29/21 16:46	n/a	Initial cal verification 50
V1A9178-ICV9178	1A212470.D	07/29/21 17:11	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Run ID: V1A9190 **Method:** SW846 8260D **Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A9190-BFB	1A212783.D	08/06/21 20:48	n/a	BFB Tune
V1A9190-CC9178	1A212783.D	08/06/21 20:48	n/a	Continuing cal 50
V1A9190-BS	1A212785.D	08/06/21 21:39	n/a	Blank Spike
V1A9190-MB	1A212787.D	08/06/21 22:29	n/a	Method Blank
JD29301-9	1A212788.D	08/06/21 22:54	n/a	EQ BLANK
JD29301-10	1A212789.D	08/06/21 23:19	n/a	TRIP BLANK
ZZZZZZ	1A212790.D	08/06/21 23:44	n/a	(unrelated sample)
ZZZZZZ	1A212791.D	08/07/21 00:09	n/a	(unrelated sample)
ZZZZZZ	1A212792.D	08/07/21 00:34	n/a	(unrelated sample)
ZZZZZZ	1A212793.D	08/07/21 00:59	n/a	(unrelated sample)
JD29301-8	1A212794.D	08/07/21 01:24	n/a	RW SEEP 080221
JD29301-8MS	1A212795.D	08/07/21 01:49	n/a	Matrix Spike
JD29301-8MSD	1A212796.D	08/07/21 02:14	n/a	Matrix Spike Duplicate
ZZZZZZ	1A212798.D	08/07/21 03:04	n/a	(unrelated sample)
ZZZZZZ	1A212799.D	08/07/21 03:29	n/a	(unrelated sample)
ZZZZZZ	1A212800.D	08/07/21 03:54	n/a	(unrelated sample)
ZZZZZZ	1A212801.D	08/07/21 04:19	n/a	(unrelated sample)
ZZZZZZ	1A212802.D	08/07/21 04:44	n/a	(unrelated sample)
ZZZZZZ	1A212803.D	08/07/21 05:09	n/a	(unrelated sample)
JD29301-1	1A212804.D	08/07/21 05:34	n/a	BD24SEEP080221
JD29301-2	1A212805.D	08/07/21 05:59	n/a	BD080221
JD29301-3	1A212806.D	08/07/21 06:24	n/a	OPEN DITCH 001 080221
JD29301-4	1A212807.D	08/07/21 06:49	n/a	BYPASS 080221
JD29301-5	1A212808.D	08/07/21 07:14	n/a	WB SEEPS 080221
JD29301-6	1A212809.D	08/07/21 07:39	n/a	OUTFALL 001 080221

Run Sequence Report

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Run ID: V3B7429	**Method:** SW846 8260D	**Instrument ID:** GCMS3B

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3B7429-BFB	3B164950.D	04/22/21 17:46	n/a	BFB Tune
V3B7429-IC7429	3B164951.D	04/22/21 18:23	n/a	Initial cal 0.2
V3B7429-IC7429	3B164952.D	04/22/21 18:52	n/a	Initial cal 0.5
V3B7429-IC7429	3B164953.D	04/22/21 19:20	n/a	Initial cal 1
V3B7429-IC7429	3B164954.D	04/22/21 19:49	n/a	Initial cal 2
V3B7429-IC7429	3B164955.D	04/22/21 20:18	n/a	Initial cal 4
V3B7429-IC7429	3B164956.D	04/22/21 20:47	n/a	Initial cal 8
V3B7429-IC7429	3B164957.D	04/22/21 21:15	n/a	Initial cal 20
V3B7429-ICC7429	3B164958.D	04/22/21 21:44	n/a	Initial cal 50
V3B7429-IC7429	3B164959.D	04/22/21 22:13	n/a	Initial cal 100
V3B7429-IC7429	3B164960.D	04/22/21 22:41	n/a	Initial cal 200
V3B7429-ICV7429	3B164963.D	04/23/21 00:08	n/a	Initial cal verification 50
V3B7429-ICV7429	3B164964.D	04/23/21 00:37	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD29301
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Run ID: V3B7507	**Method:** SW846 8260D	**Instrument ID:** GCMS3B

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V3B7507-BFB	3B166485.D	08/09/21 09:16	n/a	BFB Tune
V3B7507-CC7429	3B166485.D	08/09/21 09:16	n/a	Continuing cal 20
V3B7507-BS	3B166487.D	08/09/21 10:31	n/a	Blank Spike
V3B7507-MB	3B166489.D	08/09/21 11:30	n/a	Method Blank
ZZZZZZ	3B166490.D	08/09/21 12:10	n/a	(unrelated sample)
ZZZZZZ	3B166491.D	08/09/21 12:40	n/a	(unrelated sample)
ZZZZZZ	3B166492.D	08/09/21 14:36	n/a	(unrelated sample)
ZZZZZZ	3B166493.D	08/09/21 15:06	n/a	(unrelated sample)
ZZZZZZ	3B166494.D	08/09/21 15:35	n/a	(unrelated sample)
ZZZZZZ	3B166495.D	08/09/21 16:05	n/a	(unrelated sample)
ZZZZZZ	3B166496.D	08/09/21 16:34	n/a	(unrelated sample)
ZZZZZZ	3B166497.D	08/09/21 17:04	n/a	(unrelated sample)
ZZZZZZ	3B166498.D	08/09/21 17:34	n/a	(unrelated sample)
JD29339-1	3B166499.D	08/09/21 18:03	n/a	(used for QC only; not part of job JD29301)
JD29339-1MS	3B166500.D	08/09/21 18:33	n/a	Matrix Spike
JD29339-1MSD	3B166501.D	08/09/21 19:03	n/a	Matrix Spike Duplicate
ZZZZZZ	3B166503.D	08/09/21 20:02	n/a	(unrelated sample)
JD29301-7	3B166504.D	08/09/21 20:32	n/a	WOODEN SLUICE 080221

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212804.d
Acq On : 7 Aug 2021 5:34 am
Operator : edwardd
Sample : JD29301-1 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:39:20 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

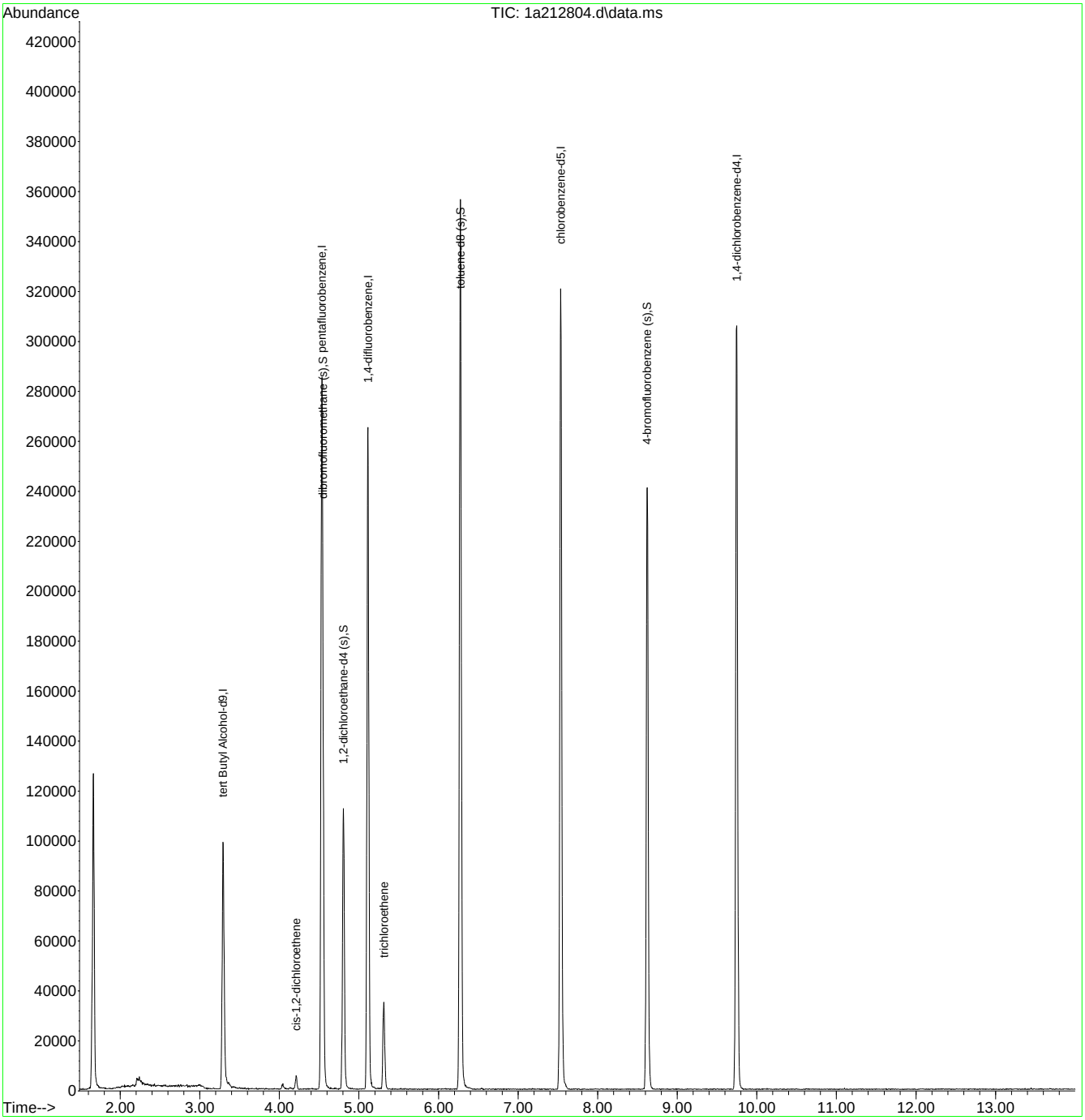
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.290	65	87888	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	136026	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	198018	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	183958	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	87880	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	58426	52.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.56%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	66234	52.48	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.96%			
72) toluene-d8 (s)	6.275	98	227285	50.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.48%			
96) 4-bromofluorobenzene (s)	8.620	95	80142	51.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.92%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	4.211	96	1988	1.91	ug/L	80
58) trichloroethene	5.312	95	9797	9.45	ug/L	92

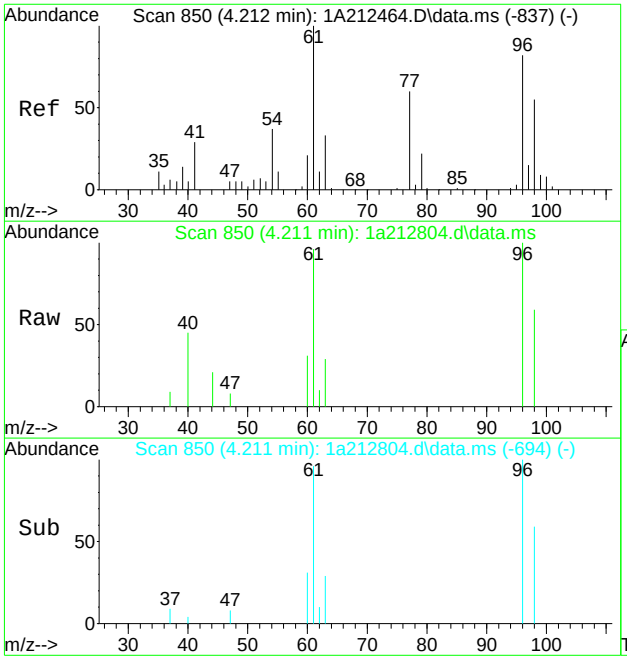
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212804.d
Acq On : 7 Aug 2021 5:34 am
Operator : edwardd
Sample : JD29301-1 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 50 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:39:20 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

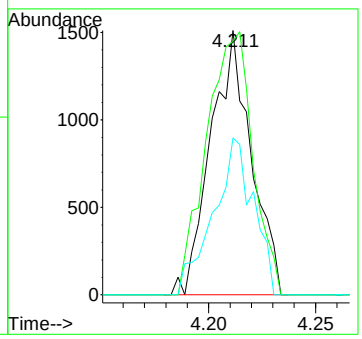


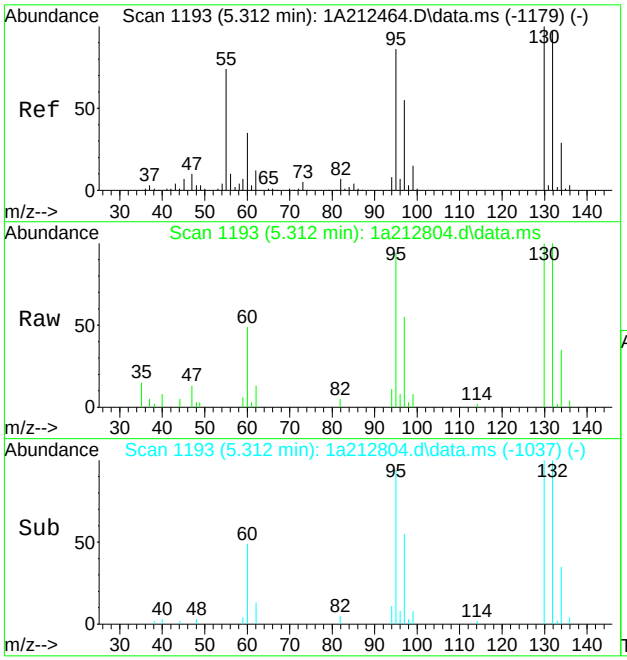


#36
cis-1,2-dichloroethene
Concen: 1.91 ug/L
RT: 4.211 min Scan# 850
Delta R.T. -0.001 min
Lab File: 1a212804.d
Acq: 7 Aug 2021 5:34 am

Tgt Ion: 96 Resp: 1988

Ion	Ratio	Lower	Upper
96	100		
61	95.8	94.4	154.4
98	59.3	37.1	97.1

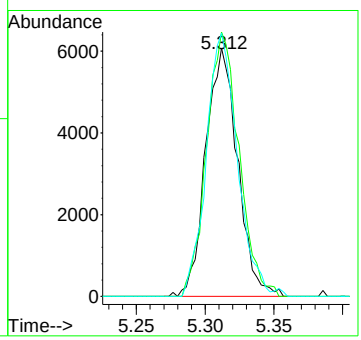




#58
trichloroethene
Concen: 9.45 ug/L
RT: 5.312 min Scan# 1193
Delta R.T. -0.000 min
Lab File: 1a212804.d
Acq: 7 Aug 2021 5:34 am

Tgt Ion: 95 Resp: 9797

Ion	Ratio	Lower	Upper
95	100		
130	106.5	86.5	146.5
132	105.9	82.9	142.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212805.d
Acq On : 7 Aug 2021 5:59 am
Operator : edwardd
Sample : JD29301-2 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:39:57 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

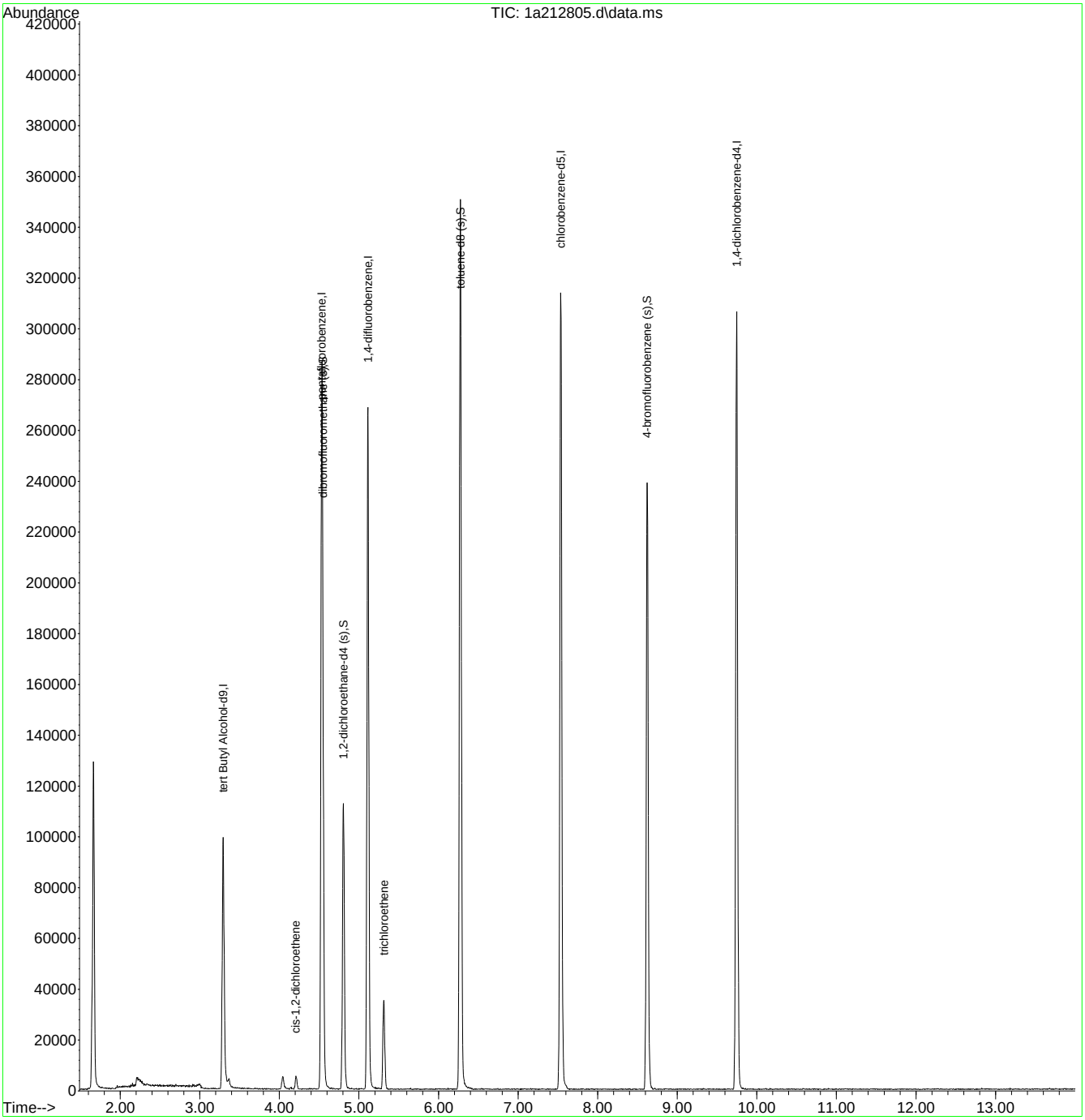
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	88921	500.00	ug/L	0.00
5) pentafluorobenzene	4.529	168	137127	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	199519	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	184839	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	86182	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	57626	51.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.28%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	66762	52.50	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.00%			
72) toluene-d8 (s)	6.275	98	228445	50.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.50%			
96) 4-bromofluorobenzene (s)	8.620	95	79134	51.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.62%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	4.205	96	2013	1.92	ug/L	84
58) trichloroethene	5.312	95	9740	9.32	ug/L	91

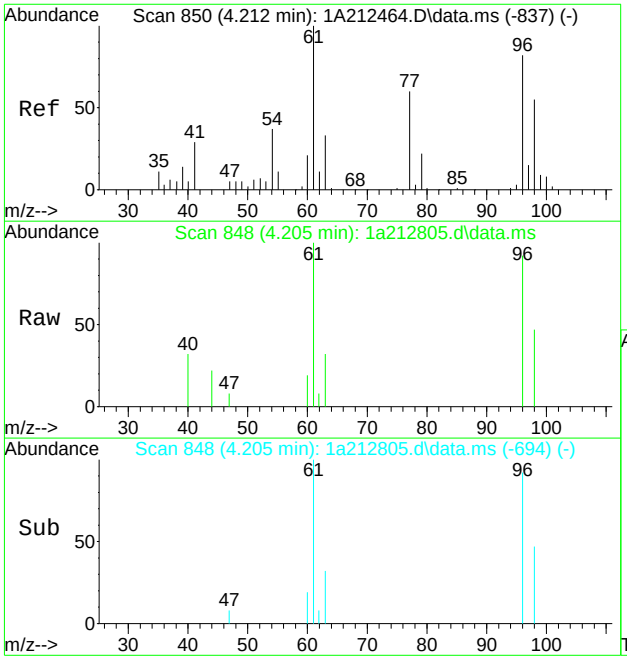
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212805.d
Acq On : 7 Aug 2021 5:59 am
Operator : edwardd
Sample : JD29301-2 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:39:57 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

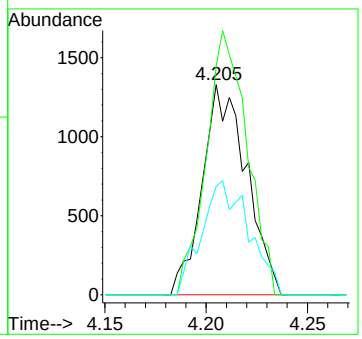


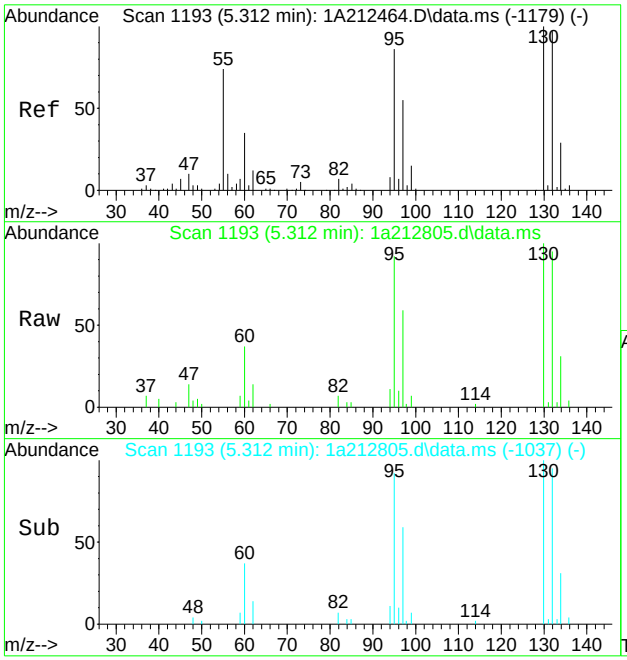


#36
cis-1,2-dichloroethene
Concen: 1.92 ug/L
RT: 4.205 min Scan# 848
Delta R.T. -0.007 min
Lab File: 1a212805.d
Acq: 7 Aug 2021 5:59 am

Tgt Ion: 96 Resp: 2013

Ion	Ratio	Lower	Upper
96	100		
61	108.9	94.4	154.4
98	51.4	37.1	97.1

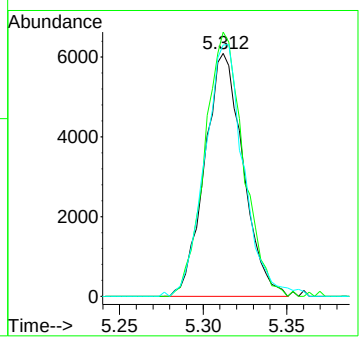




#58
trichloroethene
Concen: 9.32 ug/L
RT: 5.312 min Scan# 1193
Delta R.T. 0.000 min
Lab File: 1a212805.d
Acq: 7 Aug 2021 5:59 am

Tgt Ion: 95 Resp: 9740

Ion	Ratio	Lower	Upper
95	100		
130	108.8	86.5	146.5
132	101.6	82.9	142.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212806.d
Acq On : 7 Aug 2021 6:24 am
Operator : edwardd
Sample : JD29301-3 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:40:18 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

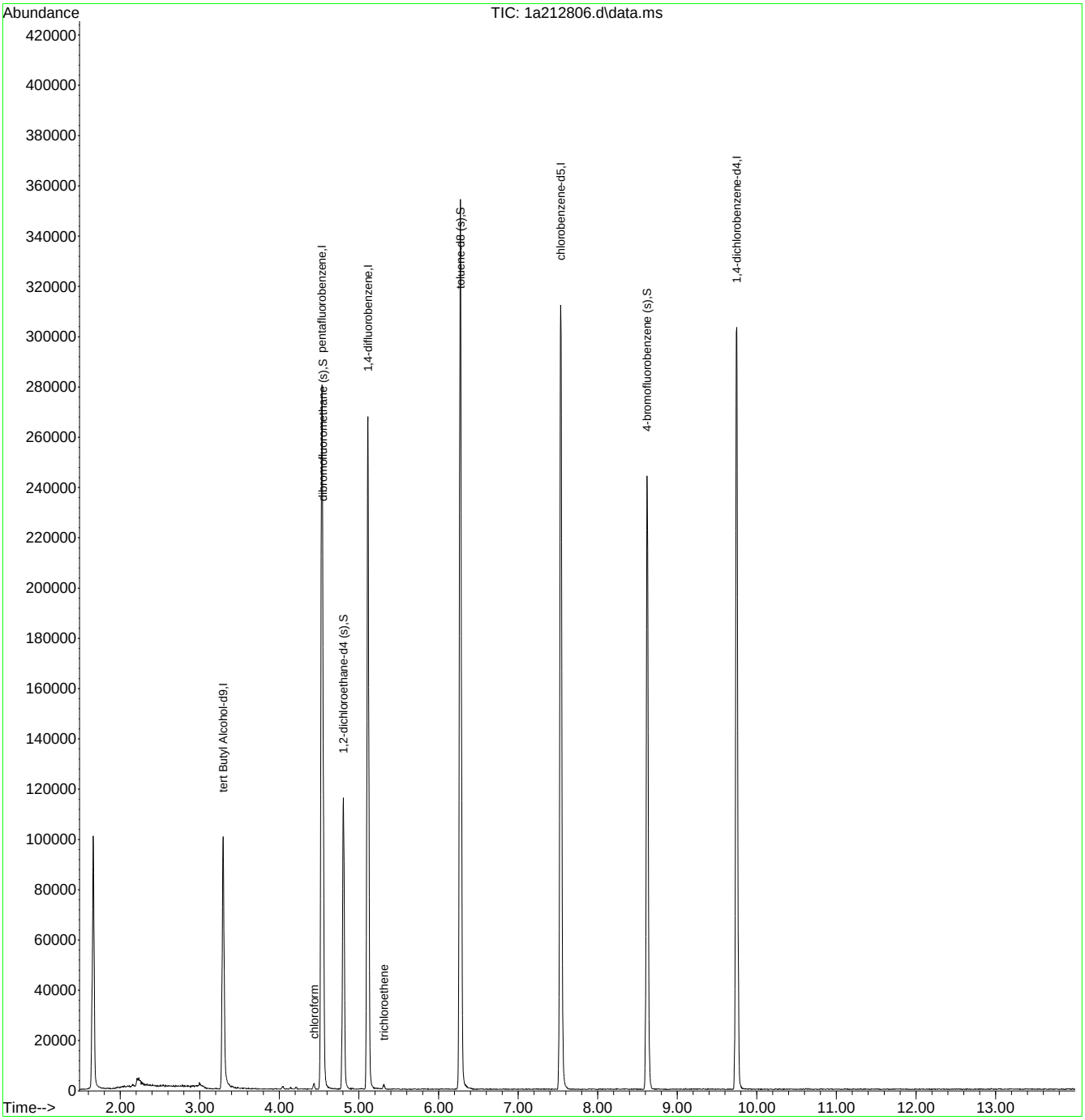
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	89483	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	135579	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	196733	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	182051	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	86894	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	58421	52.95	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.90%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	66083	52.70	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.40%			
72) toluene-d8 (s)	6.275	98	227335	50.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.56%			
96) 4-bromofluorobenzene (s)	8.620	95	77843	50.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%			
Target Compounds						Qvalue
41) chloroform	4.436	83	1430	0.80	ug/L	85
58) trichloroethene	5.312	95	521	0.51	ug/L #	54

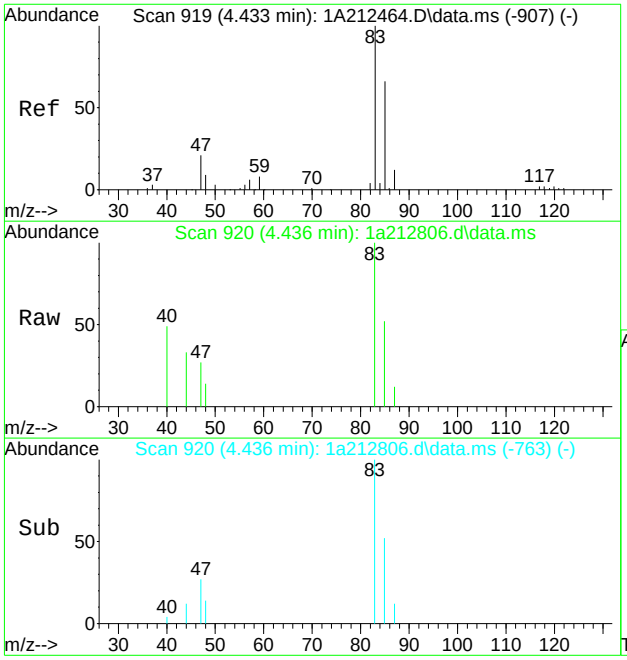
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212806.d
Acq On : 7 Aug 2021 6:24 am
Operator : edwardd
Sample : JD29301-3 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:40:18 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

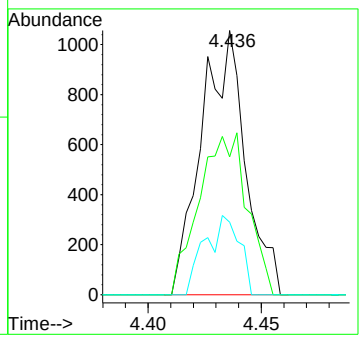


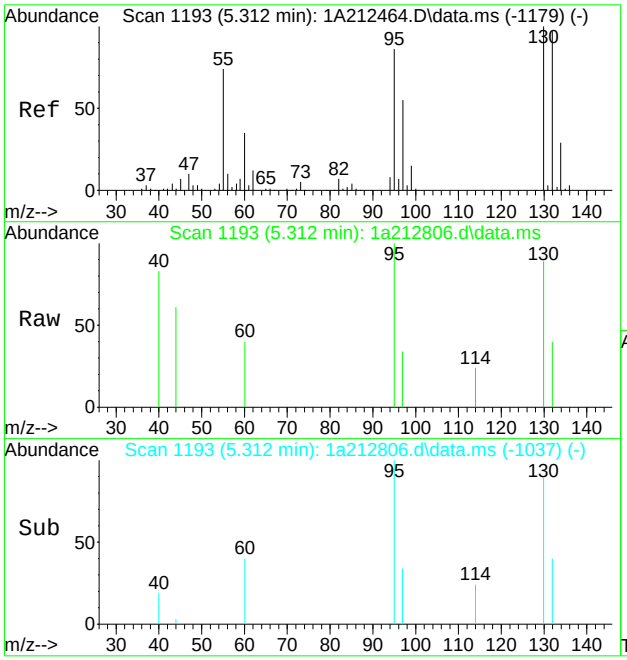


#41
chloroform
Concen: 0.80 ug/L
RT: 4.436 min Scan# 920
Delta R.T. 0.003 min
Lab File: 1a212806.d
Acq: 7 Aug 2021 6:24 am

Tgt Ion: 83 Resp: 1430

Ion	Ratio	Lower	Upper
83	100		
85	52.1	35.5	95.5
47	27.4	0.0	52.4

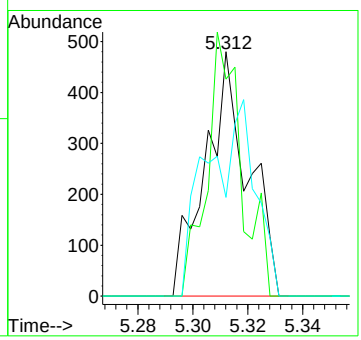




#58
trichloroethene
Concen: 0.51 ug/L
RT: 5.312 min Scan# 1193
Delta R.T. 0.000 min
Lab File: 1a212806.d
Acq: 7 Aug 2021 6:24 am

Tgt Ion: 95 Resp: 521

Ion	Ratio	Lower	Upper
95	100		
130	88.8	86.5	146.5
132	40.4	82.9	142.9#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212807.d
Acq On : 7 Aug 2021 6:49 am
Operator : edwardd
Sample : JD29301-4 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 53 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:40:58 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

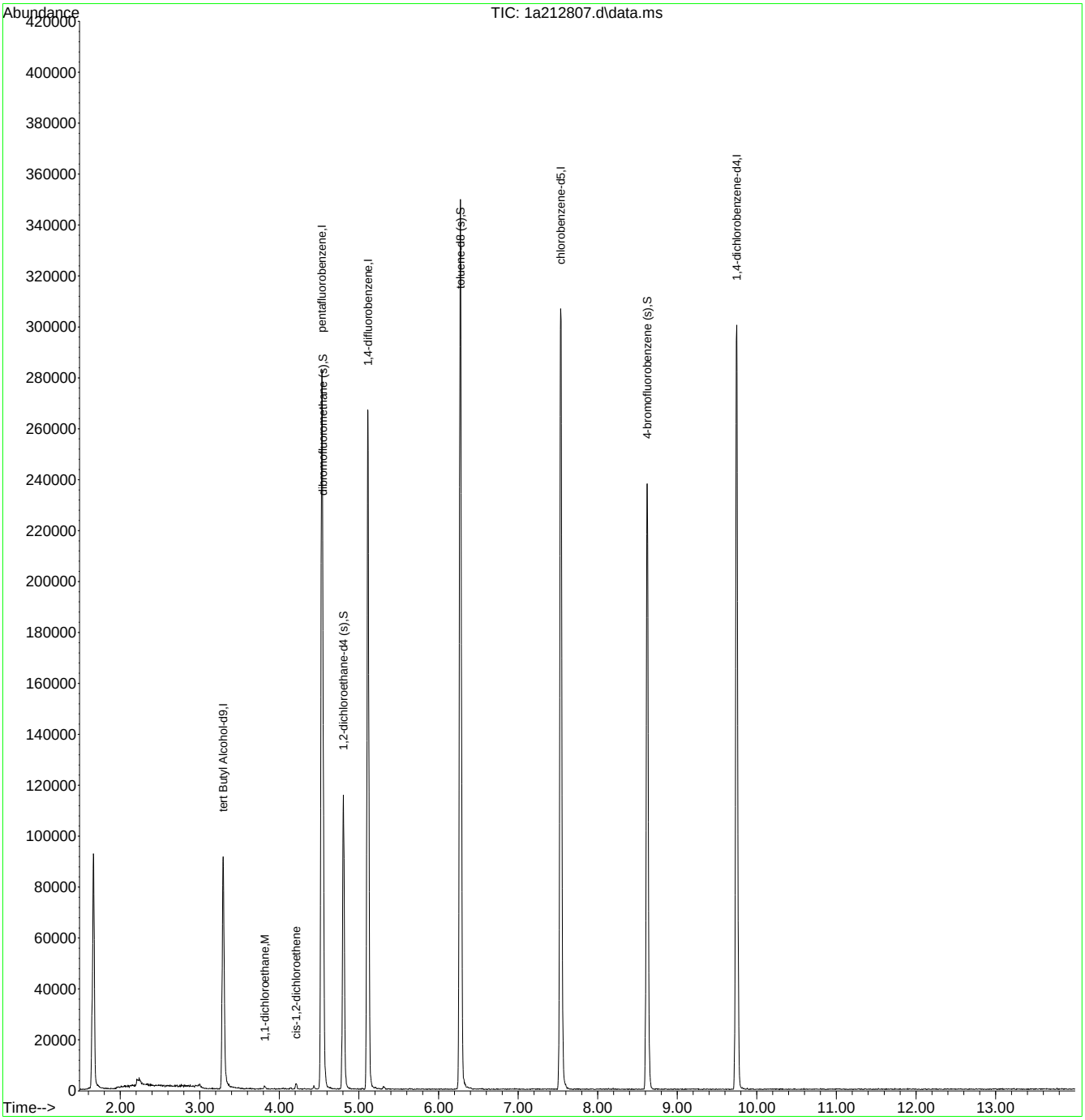
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	84400	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	134681	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	196666	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	182281	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	87001	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	58309	53.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.40%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	64336	51.33	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.66%			
72) toluene-d8 (s)	6.275	98	225444	50.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.58%			
96) 4-bromofluorobenzene (s)	8.624	95	79331	51.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.90%			
Target Compounds						Qvalue
30) 1,1-dichloroethane	3.817	63	948	0.60	ug/L	87
36) cis-1,2-dichloroethene	4.211	96	907	0.88	ug/L #	79

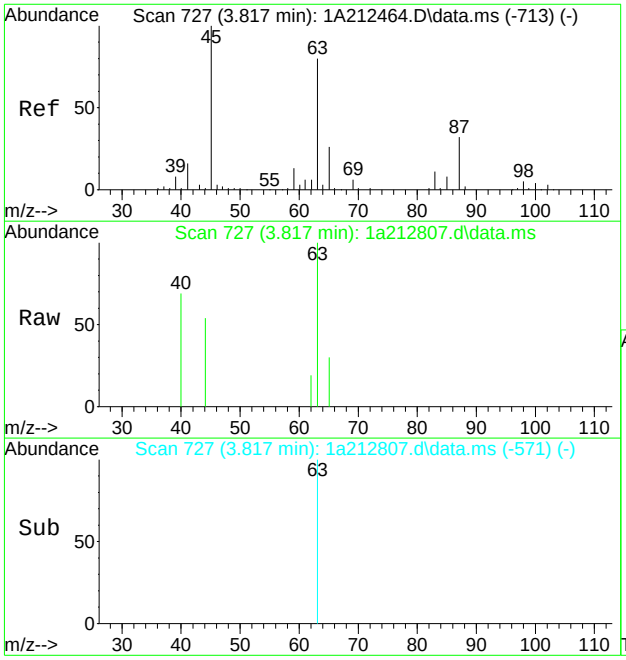
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212807.d
Acq On : 7 Aug 2021 6:49 am
Operator : edwardd
Sample : JD29301-4 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 53 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:40:58 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

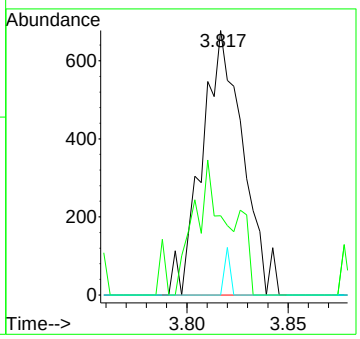


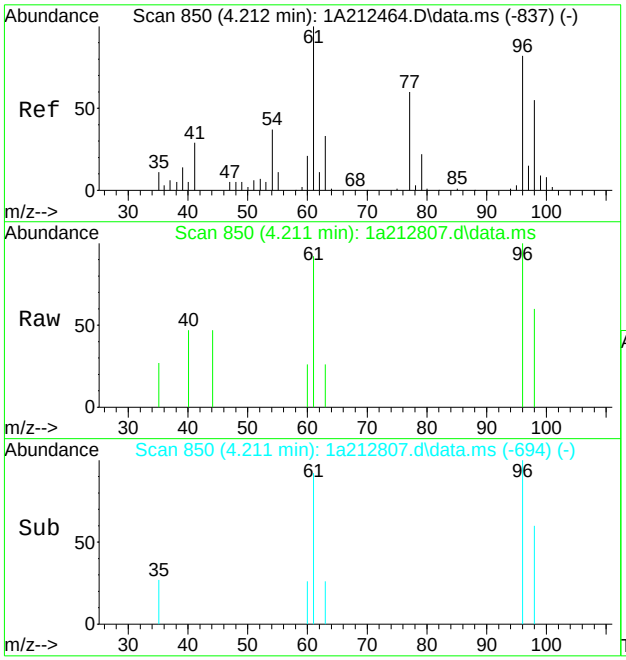


#30
1,1-dichloroethane
Concen: 0.60 ug/L
RT: 3.817 min Scan# 727
Delta R.T. -0.000 min
Lab File: 1a212807.d
Acq: 7 Aug 2021 6:49 am

Tgt Ion: 63 Resp: 948

Ion	Ratio	Lower	Upper
63	100		
65	29.9	2.2	62.2
83	0.0	0.0	43.6

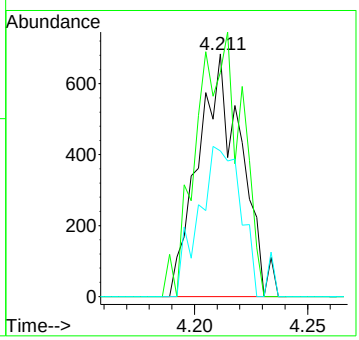




#36
cis-1,2-dichloroethene
Concen: 0.88 ug/L
RT: 4.211 min Scan# 850
Delta R.T. -0.001 min
Lab File: 1a212807.d
Acq: 7 Aug 2021 6:49 am

Tgt Ion: 96 Resp: 907

Ion	Ratio	Lower	Upper
96	100		
61	92.4	94.4	154.4#
98	60.1	37.1	97.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212808.d
Acq On : 7 Aug 2021 7:14 am
Operator : edwardd
Sample : JD29301-5 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 54 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:41:37 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

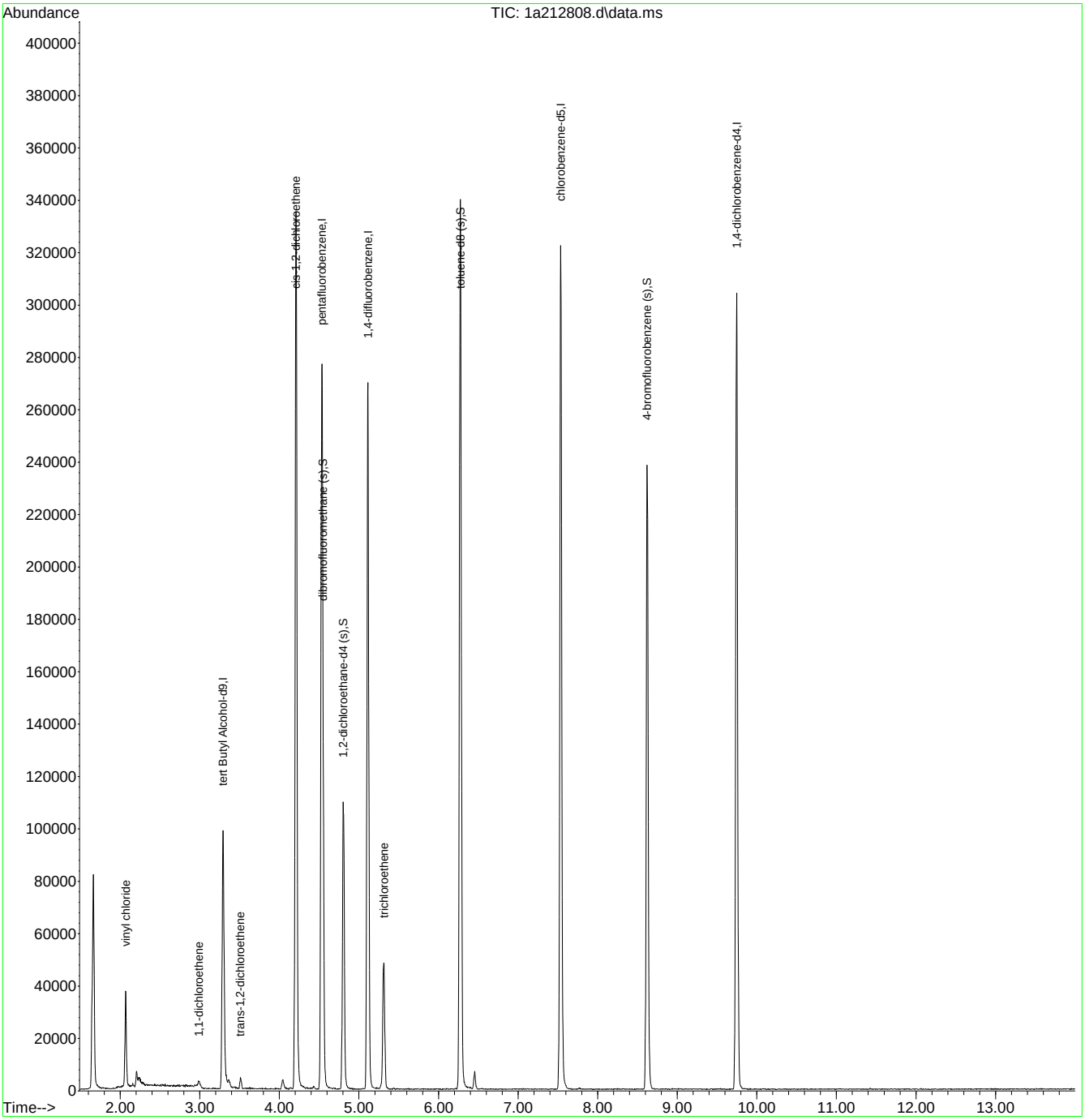
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	89445	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	135060	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	194909	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	181074	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	86285	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.548	113	56894	51.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.52%			
51) 1,2-dichloroethane-d4 (s)	4.802	65	63110	50.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.60%			
72) toluene-d8 (s)	6.275	98	221281	49.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.38%			
96) 4-bromofluorobenzene (s)	8.621	95	77141	50.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.88%			
Target Compounds						Qvalue
9) vinyl chloride	2.068	62	26619	20.70	ug/L	98
16) 1,1-dichloroethene	2.989	96	398	0.44	ug/L #	54
25) trans-1,2-dichloroethene	3.509	96	1244	1.31	ug/L	93
36) cis-1,2-dichloroethene	4.208	96	127326	123.49	ug/L	93
58) trichloroethene	5.312	95	14281	13.99	ug/L	91

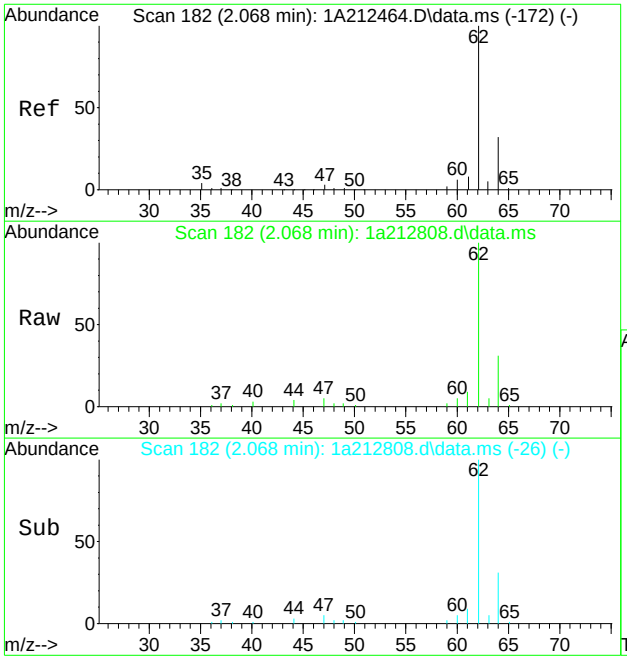
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212808.d
Acq On : 7 Aug 2021 7:14 am
Operator : edwardd
Sample : JD29301-5 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 54 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:41:37 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

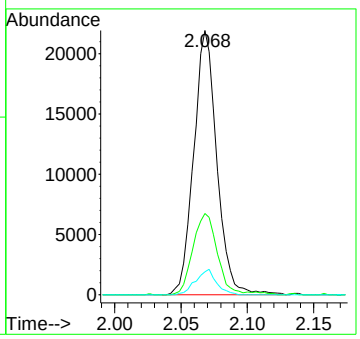


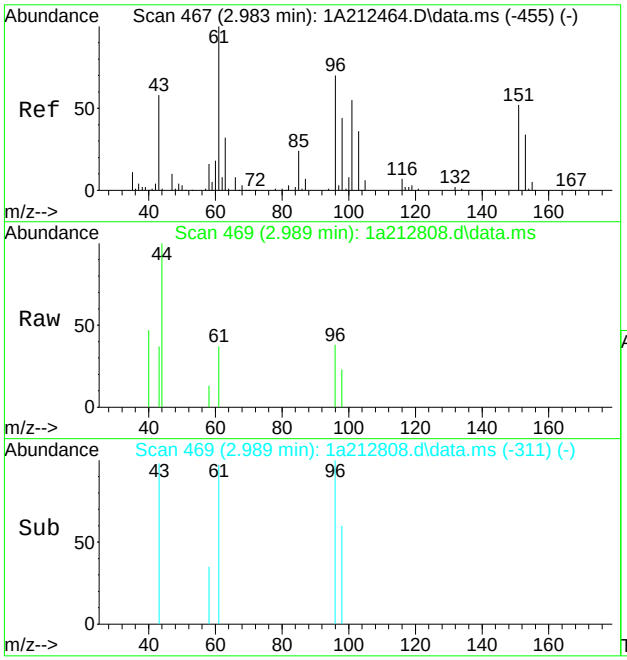


#9
vinyl chloride
Concen: 20.70 ug/L
RT: 2.068 min Scan# 182
Delta R.T. -0.000 min
Lab File: 1a212808.d
Acq: 7 Aug 2021 7:14 am

Tgt Ion: 62 Resp: 26619

Ion	Ratio	Lower	Upper
62	100		
64	30.8	2.0	62.0
61	8.7	0.0	38.0

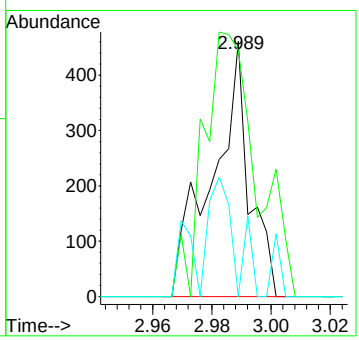


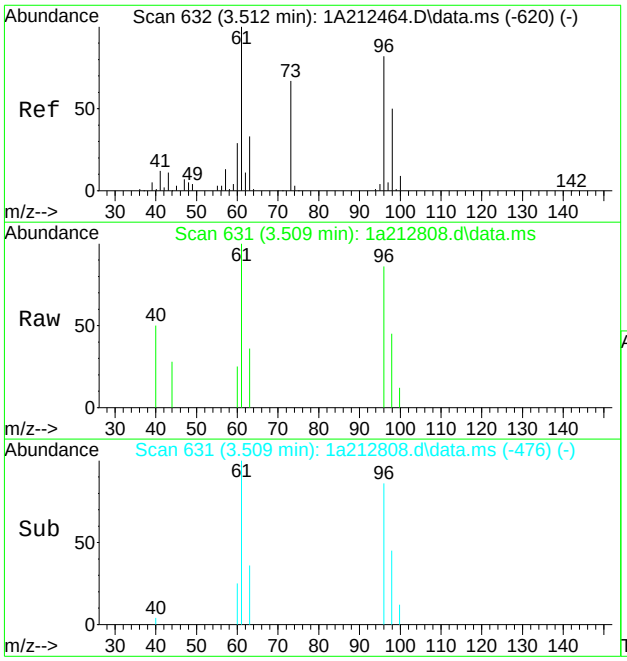


#16
1,1-dichloroethene
Concen: 0.44 ug/L
RT: 2.989 min Scan# 469
Delta R.T. 0.006 min
Lab File: 1a212808.d
Acq: 7 Aug 2021 7:14 am

Tgt Ion: 96 Resp: 398

Ion	Ratio	Lower	Upper
96	100		
61	96.5	113.6	173.6#
63	0.0	16.2	76.2#

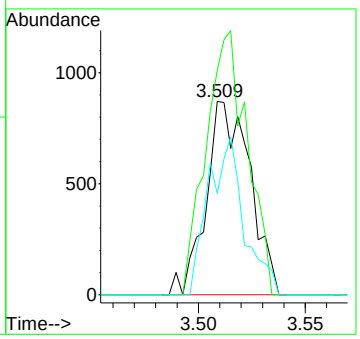


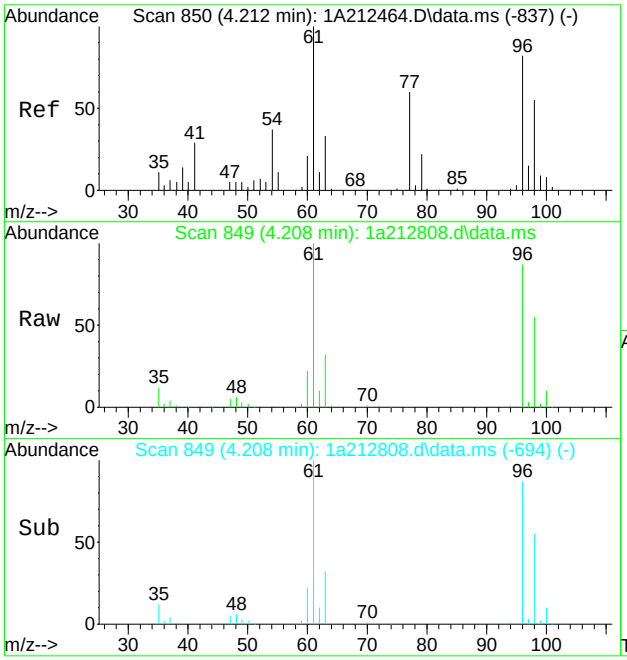


#25
trans-1,2-dichloroethene
Concen: 1.31 ug/L
RT: 3.509 min Scan# 631
Delta R.T. -0.003 min
Lab File: 1a212808.d
Acq: 7 Aug 2021 7:14 am

Tgt Ion: 96 Resp: 1244

Ion	Ratio	Lower	Upper
96	100		
61	116.1	91.6	151.6
98	52.4	31.3	91.3

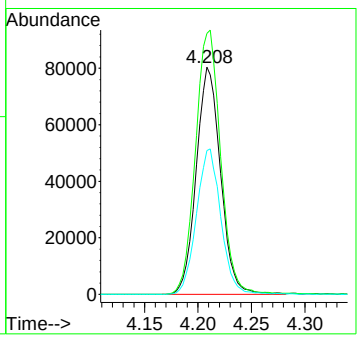


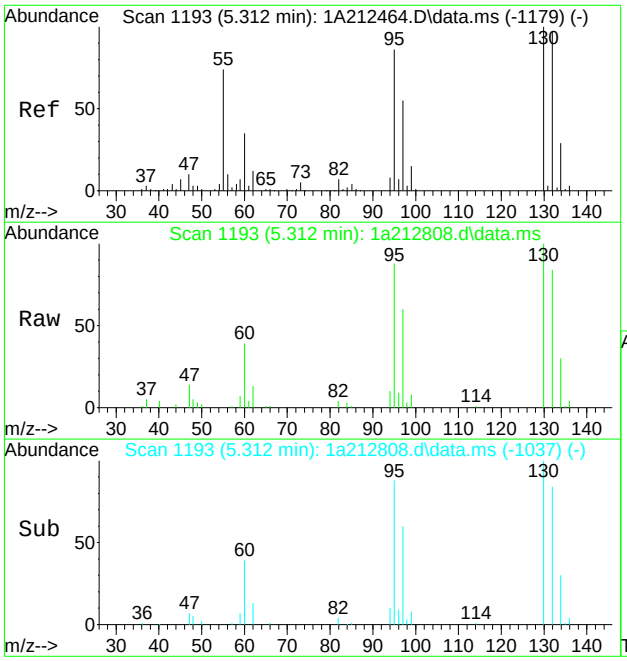


#36
cis-1,2-dichloroethene
Concen: 123.49 ug/L
RT: 4.208 min Scan# 849
Delta R.T. -0.004 min
Lab File: 1a212808.d
Acq: 7 Aug 2021 7:14 am

Tgt Ion: 96 Resp: 127326

Ion	Ratio	Lower	Upper
96	100		
61	114.8	94.4	154.4
98	63.2	37.1	97.1

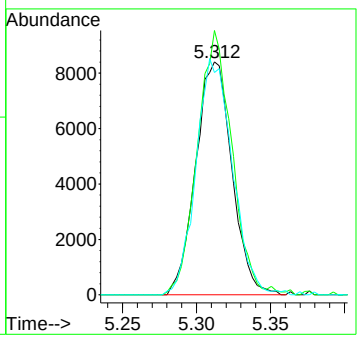




#58
trichloroethene
Concen: 13.99 ug/L
RT: 5.312 min Scan# 1193
Delta R.T. 0.000 min
Lab File: 1a212808.d
Acq: 7 Aug 2021 7:14 am

Tgt Ion: 95 Resp: 14281

Ion	Ratio	Lower	Upper
95	100		
130	113.5	86.5	146.5
132	95.4	82.9	142.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212809.d
Acq On : 7 Aug 2021 7:39 am
Operator : edwardd
Sample : JD29301-6 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 55 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:42:03 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

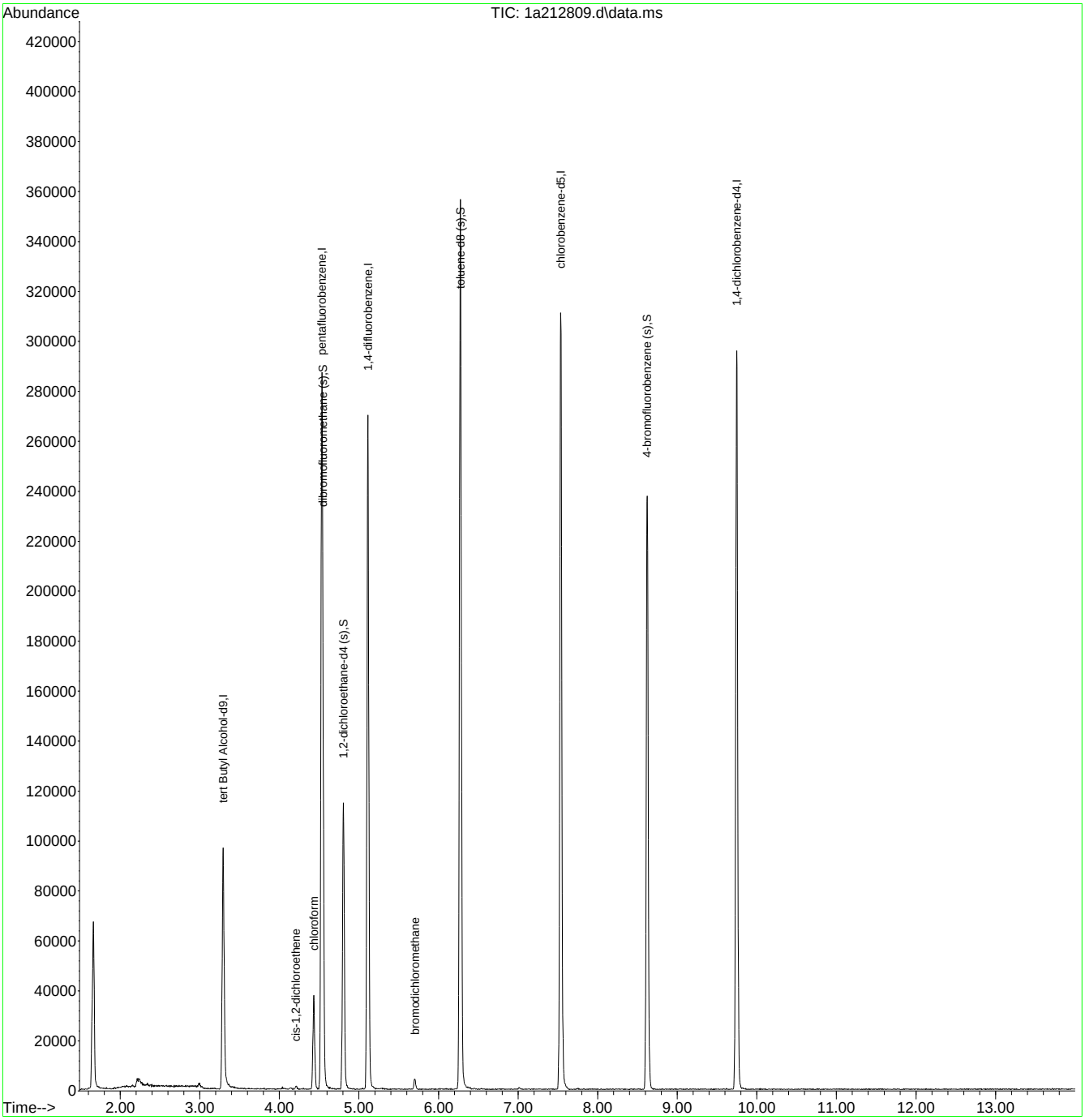
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	87836	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	137110	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	198398	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	182771	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	85568	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	58153	52.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.24%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	64842	51.28	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.56%			
72) toluene-d8 (s)	6.275	98	226165	50.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.64%			
96) 4-bromofluorobenzene (s)	8.621	95	78115	51.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.02%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	4.208	96	506	0.48	ug/L #	68
41) chloroform	4.433	83	23536	13.06	ug/L	94
66) bromodichloromethane	5.704	83	2581	1.87	ug/L	95

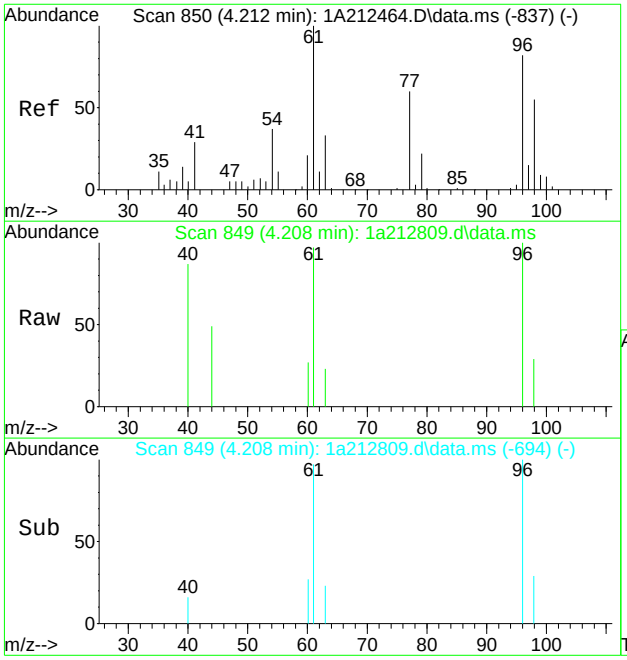
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212809.d
Acq On : 7 Aug 2021 7:39 am
Operator : edwardd
Sample : JD29301-6 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 55 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:42:03 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

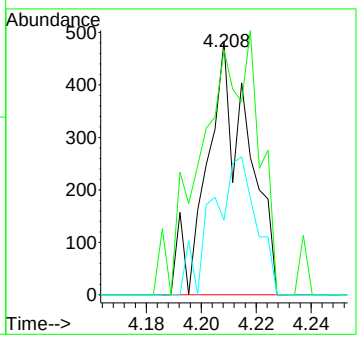


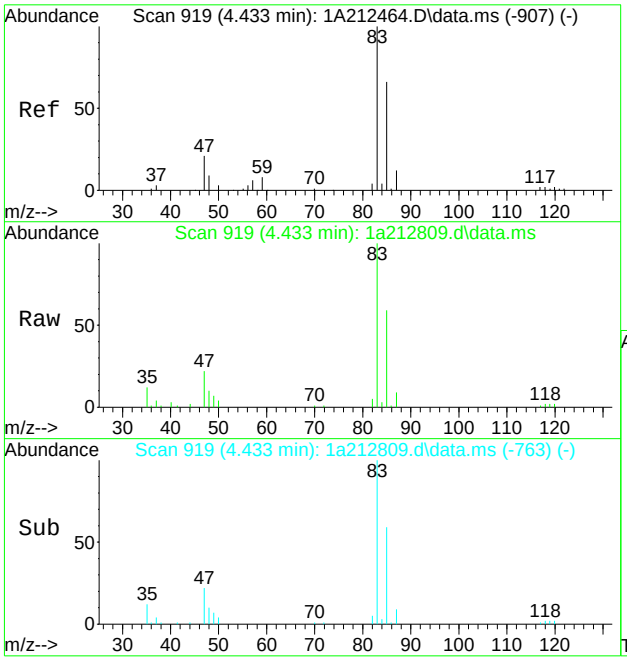


#36
cis-1,2-dichloroethene
Concen: 0.48 ug/L
RT: 4.208 min Scan# 849
Delta R.T. -0.004 min
Lab File: 1a212809.d
Acq: 7 Aug 2021 7:39 am

Tgt Ion: 96 Resp: 506

Ion	Ratio	Lower	Upper
96	100		
61	96.7	94.4	154.4
98	29.4	37.1	97.1#

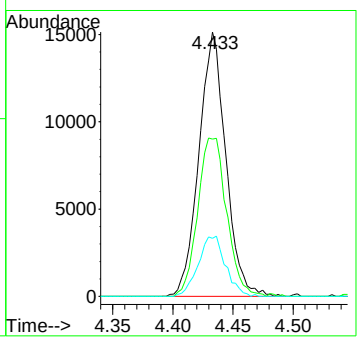


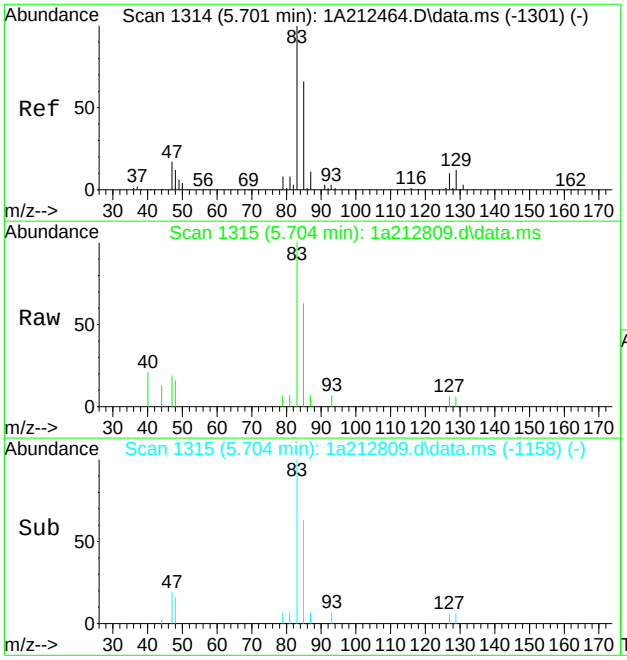


#41
chloroform
Concen: 13.06 ug/L
RT: 4.433 min Scan# 919
Delta R.T. -0.000 min
Lab File: 1a212809.d
Acq: 7 Aug 2021 7:39 am

Tgt Ion: 83 Resp: 23536

Ion	Ratio	Lower	Upper
83	100		
85	59.5	35.5	95.5
47	22.0	0.0	52.4

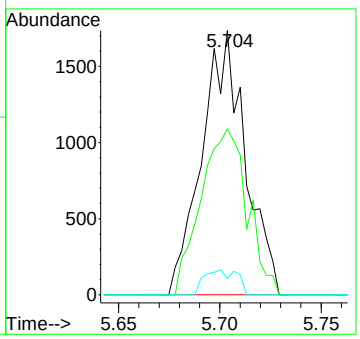




#66
bromodichloromethane
Concen: 1.87 ug/L
RT: 5.704 min Scan# 1315
Delta R.T. 0.003 min
Lab File: 1a212809.d
Acq: 7 Aug 2021 7:39 am

Tgt Ion: 83 Resp: 2581

Ion	Ratio	Lower	Upper
83	100		
85	62.8	35.9	95.9
127	6.2	0.0	39.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166504.d
Acq On : 9 Aug 2021 8:32 pm
Operator : jons2
Sample : jd29301-7 Inst : MS3B
Misc : MS52724,V3B7507,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:24:37 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

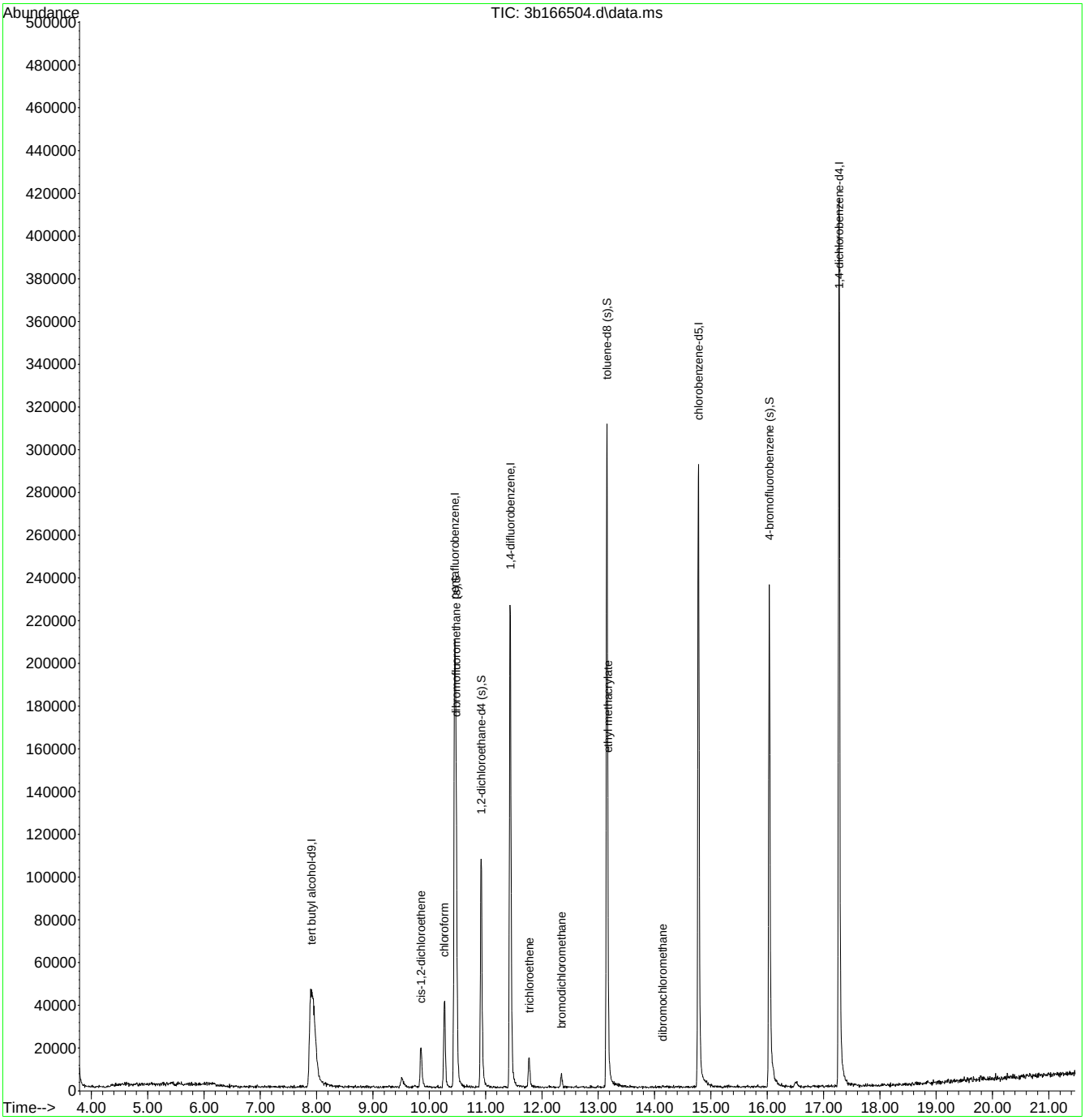
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.909	65	183036	500.00	ug/L	0.00
5) pentafluorobenzene	10.451	168	146751	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.439	114	210001	50.00	ug/L	0.00
74) chlorobenzene-d5	14.781	117	194159	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.276	152	129813	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	10.477	113	77532	52.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.34%			
54) 1,2-dichloroethane-d4 (s)	10.921	65	89385	51.42	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.84%			
75) toluene-d8 (s)	13.155	98	234660	48.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.06%			
99) 4-bromofluorobenzene (s)	16.036	95	85905	41.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 83.64%			
Target Compounds						Qvalue
37) cis-1,2-dichloroethene	9.849	96	10533	6.27	ug/L	93
43) chloroform	10.267	83	35634	11.84	ug/L	99
62) trichloroethene	11.774	95	5462	3.65	ug/L #	76
68) bromodichloromethane	12.349	83	4238	2.00	ug/L	98
77) ethyl methacrylate	13.170	69	274	0.13	ug/L #	1
84) dibromochloromethane	14.143	129	474	0.28	ug/L	75

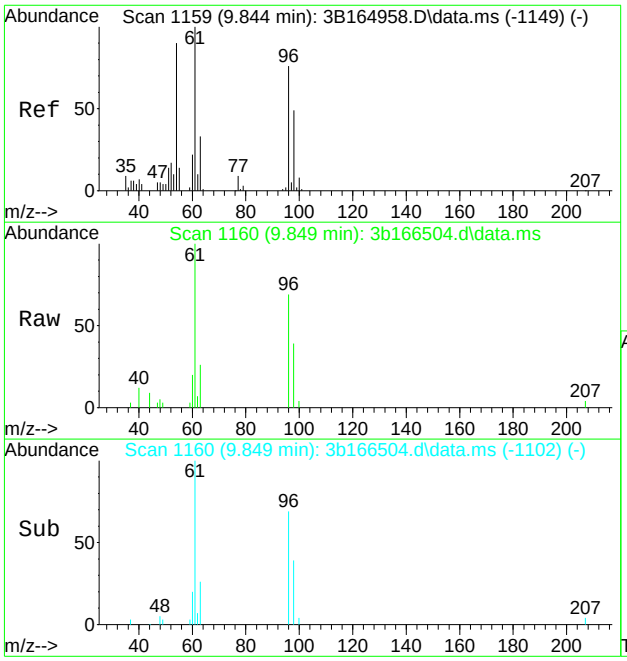
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166504.d
Acq On : 9 Aug 2021 8:32 pm
Operator : jons2
Sample : jd29301-7 Inst : MS3B
Misc : MS52724,V3B7507,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:24:37 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

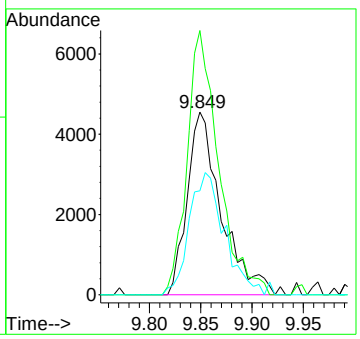


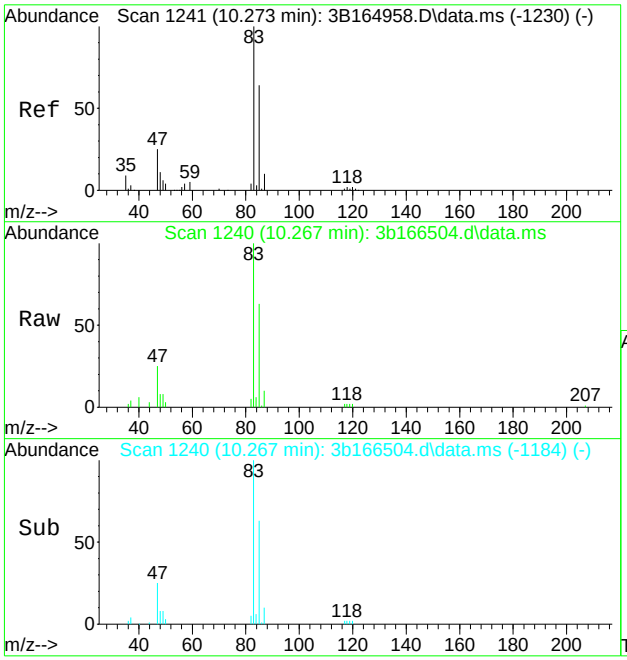


#37
cis-1,2-dichloroethene
Concen: 6.27 ug/L
RT: 9.849 min Scan# 1160
Delta R.T. 0.005 min
Lab File: 3b166504.d
Acq: 9 Aug 2021 8:32 pm

Tgt Ion: 96 Resp: 10533

Ion	Ratio	Lower	Upper
96	100		
61	144.7	108.2	168.2
98	57.0	34.3	94.3

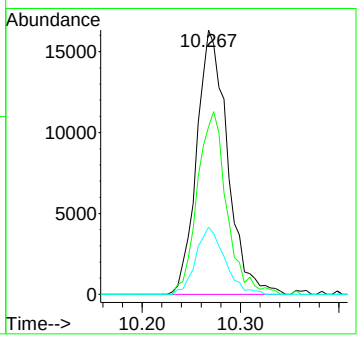


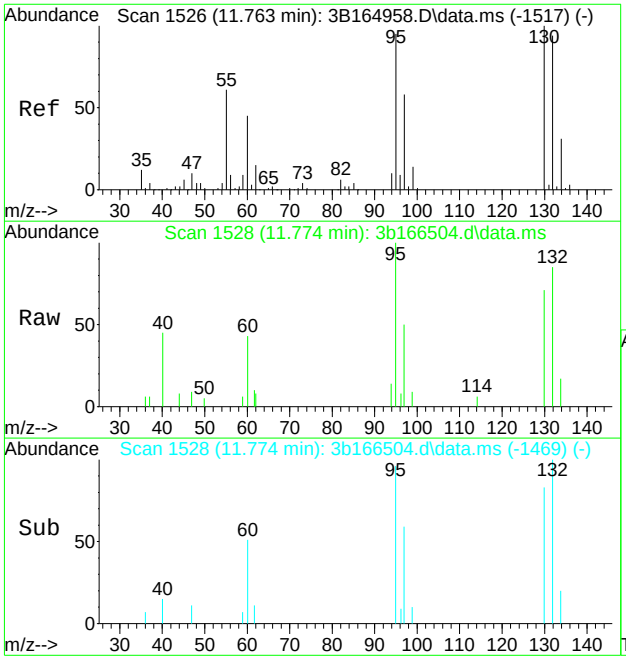


#43
chloroform
Concen: 11.84 ug/L
RT: 10.267 min Scan# 1240
Delta R.T. -0.006 min
Lab File: 3b166504.d
Acq: 9 Aug 2021 8:32 pm

Tgt Ion: 83 Resp: 35634

Ion	Ratio	Lower	Upper
83	100		
85	63.4	34.1	94.1
47	25.5	0.0	54.8

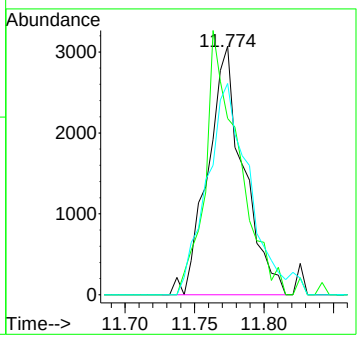


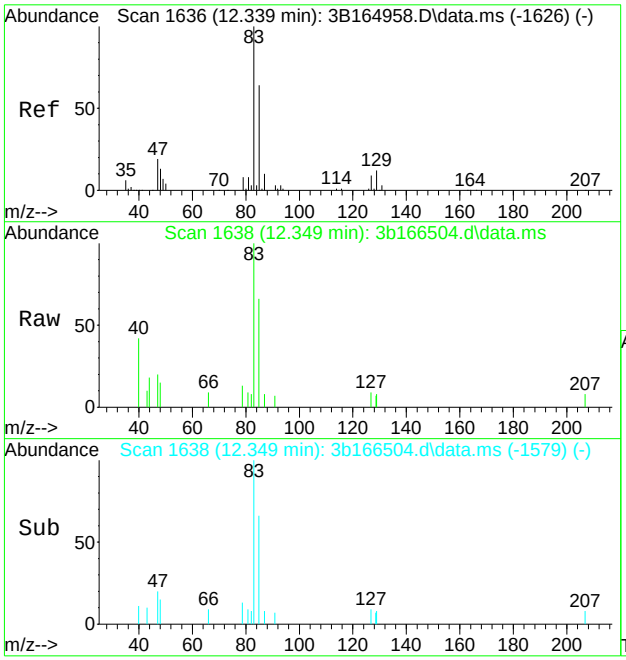


#62
trichloroethene
Concen: 3.65 ug/L
RT: 11.774 min Scan# 1528
Delta R.T. 0.011 min
Lab File: 3b166504.d
Acq: 9 Aug 2021 8:32 pm

Tgt Ion: 95 Resp: 5462

Ion	Ratio	Lower	Upper
95	100		
130	70.9	75.6	135.6#
132	84.9	69.5	129.5

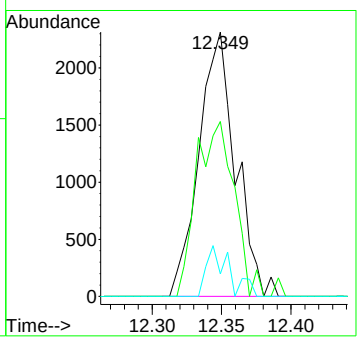


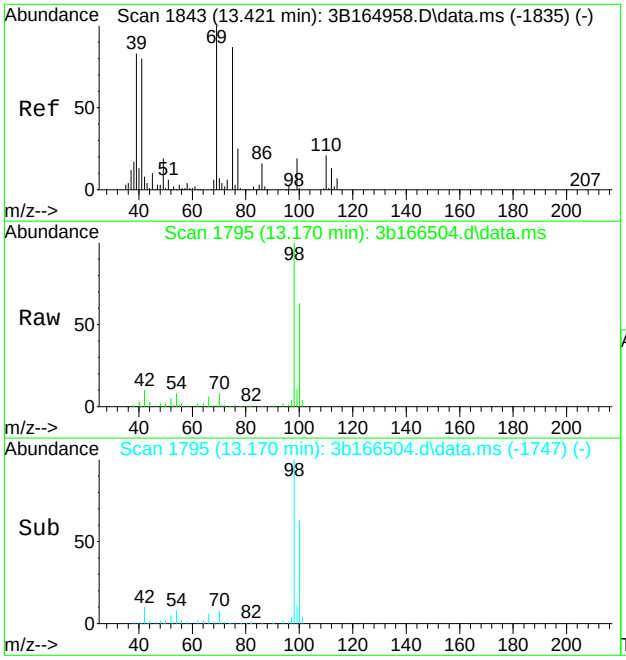


#68
bromodichloromethane
Concen: 2.00 ug/L
RT: 12.349 min Scan# 1638
Delta R.T. 0.010 min
Lab File: 3b166504.d
Acq: 9 Aug 2021 8:32 pm

Tgt Ion: 83 Resp: 4238

Ion	Ratio	Lower	Upper
83	100		
85	66.1	34.5	94.5
127	8.6	0.0	39.4

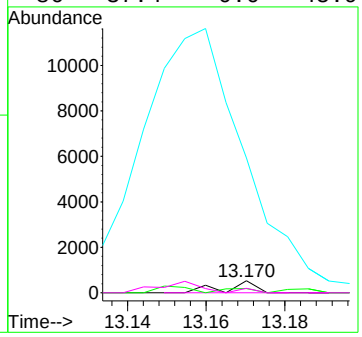


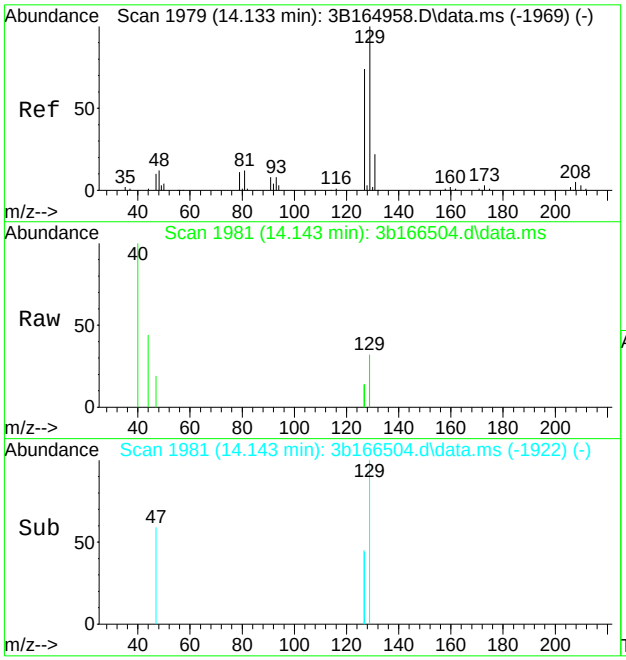


#77
ethyl methacrylate
Concen: 0.13 ug/L
RT: 13.170 min Scan# 1795
Delta R.T. -0.251 min
Lab File: 3b166504.d
Acq: 9 Aug 2021 8:32 pm

Tgt Ion: 69 Resp: 274

Ion	Ratio	Lower	Upper
69	100		
41	6.9	59.7	99.7#
99	645.0	0.0	38.5#
86	37.4	0.0	45.9

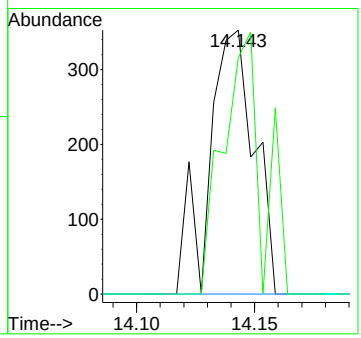




#84
dibromochloromethane
Concen: 0.28 ug/L
RT: 14.143 min Scan# 1981
Delta R.T. 0.010 min
Lab File: 3b166504.d
Acq: 9 Aug 2021 8:32 pm

Tgt Ion:129 Resp: 474

Ion	Ratio	Lower	Upper
129	100		
127	89.5	44.3	104.3
131	0.0	0.0	52.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212794.d
Acq On : 7 Aug 2021 1:24 am
Operator : edwardd
Sample : JD29301-8 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:22:42 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

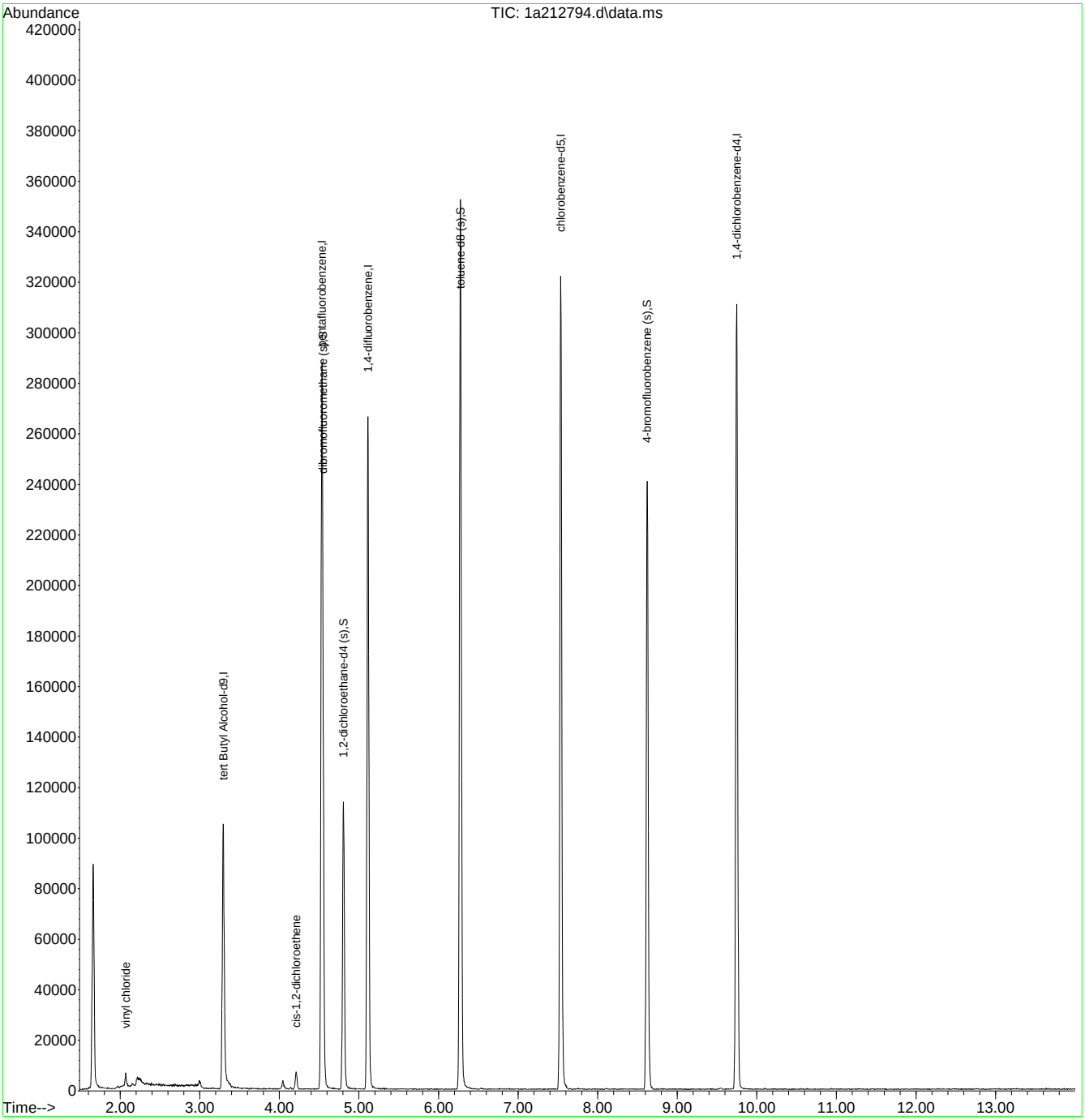
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.297	65	93634	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	138535	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	198853	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	183230	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	88349	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	58156	51.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.16%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	65929	52.02	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.04%			
72) toluene-d8 (s)	6.275	98	227079	50.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.78%			
96) 4-bromofluorobenzene (s)	8.621	95	78795	50.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.64%			
Target Compounds						Qvalue
9) vinyl chloride	2.068	62	3323	2.52	ug/L	98
36) cis-1,2-dichloroethene	4.212	96	2812	2.66	ug/L	96

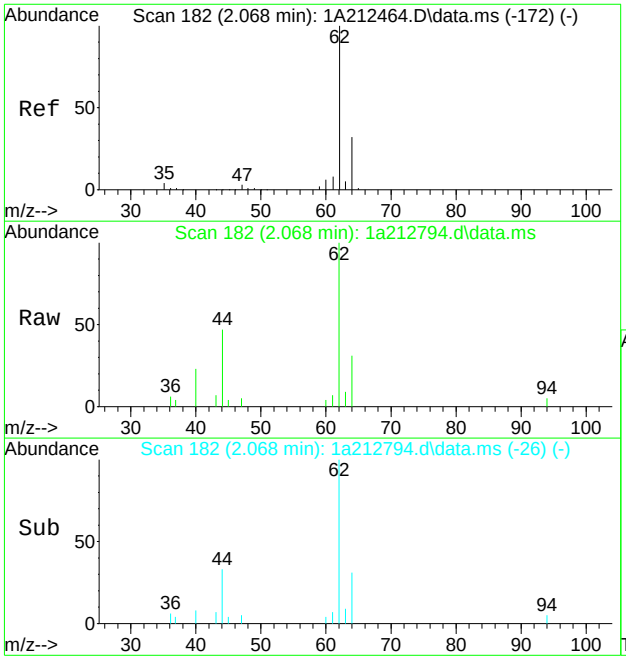
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212794.d
Acq On : 7 Aug 2021 1:24 am
Operator : edwardd
Sample : JD29301-8 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:22:42 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

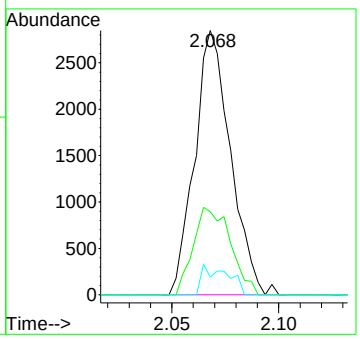


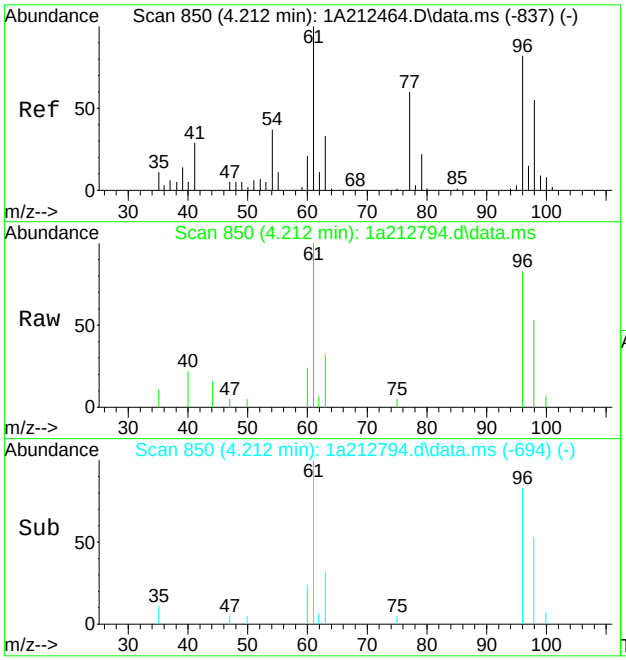


#9
vinyl chloride
Concen: 2.52 ug/L
RT: 2.068 min Scan# 182
Delta R.T. -0.000 min
Lab File: 1a212794.d
Acq: 7 Aug 2021 1:24 am

Tgt Ion: 62 Resp: 3323

Ion	Ratio	Lower	Upper
62	100		
64	31.4	2.0	62.0
61	6.7	0.0	38.0

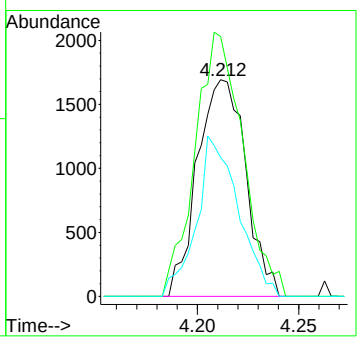




#36
cis-1,2-dichloroethene
Concen: 2.66 ug/L
RT: 4.212 min Scan# 850
Delta R.T. -0.000 min
Lab File: 1a212794.d
Acq: 7 Aug 2021 1:24 am

Tgt Ion: 96 Resp: 2812

Ion	Ratio	Lower	Upper
96	100		
61	119.8	94.4	154.4
98	64.0	37.1	97.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212788.d
Acq On : 6 Aug 2021 10:54 pm
Operator : edwardd
Sample : JD29301-9 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:27:06 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

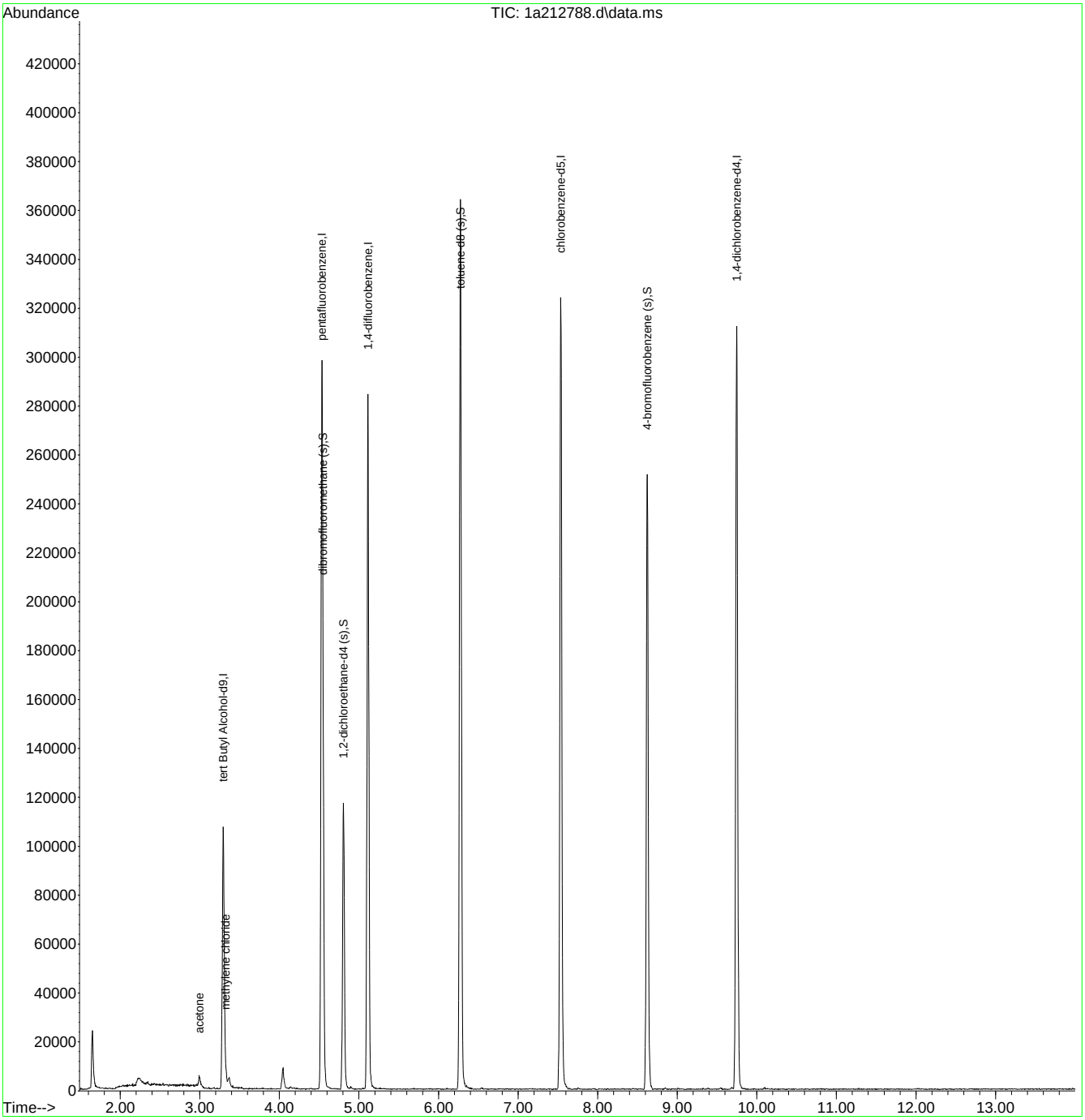
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	97553	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	144141	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	205258	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	187770	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	89221	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.548	113	59403	50.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	66037	50.48	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.96%			
72) toluene-d8 (s)	6.275	98	234218	50.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.44%			
96) 4-bromofluorobenzene (s)	8.624	95	81585	51.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.18%			
Target Compounds						Qvalue
17) acetone	2.995	58	876	5.14	ug/L #	46
22) methylene chloride	3.322	84	919	0.88	ug/L	83

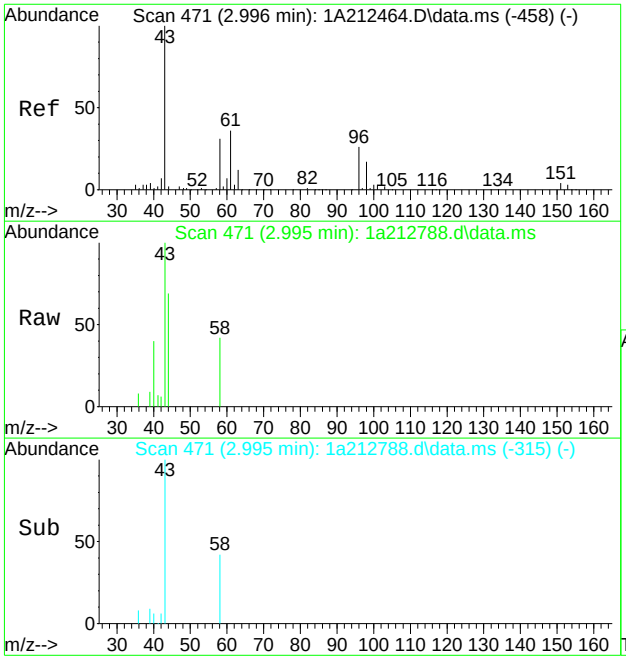
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212788.d
Acq On : 6 Aug 2021 10:54 pm
Operator : edwardd
Sample : JD29301-9 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:27:06 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

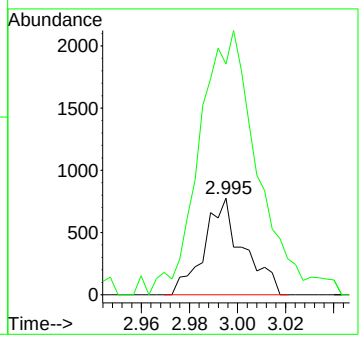


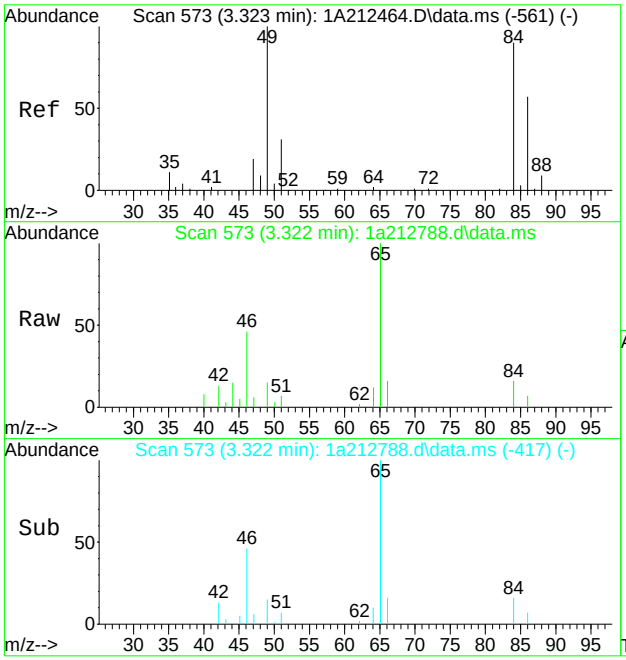


#17
acetone
Concen: 5.14 ug/L
RT: 2.995 min Scan# 471
Delta R.T. -0.001 min
Lab File: 1a212788.d
Acq: 6 Aug 2021 10:54 pm

Tgt Ion: 58 Resp: 876

Ion	Ratio	Lower	Upper
58	100		
43	215.0	297.4	357.4#

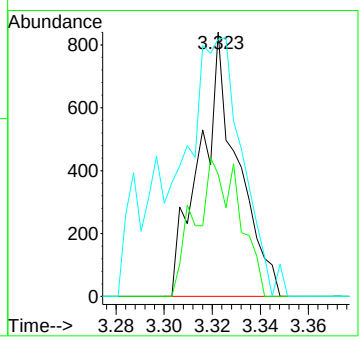




#22
methylene chloride
Concen: 0.88 ug/L
RT: 3.322 min Scan# 573
Delta R.T. -0.001 min
Lab File: 1a212788.d
Acq: 6 Aug 2021 10:54 pm

Tgt Ion: 84 Resp: 919

Ion	Ratio	Lower	Upper
84	100		
86	46.3	33.9	93.9
49	97.3	81.6	141.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212789.d
Acq On : 6 Aug 2021 11:19 pm
Operator : edwardd
Sample : JD29301-10 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:27:40 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

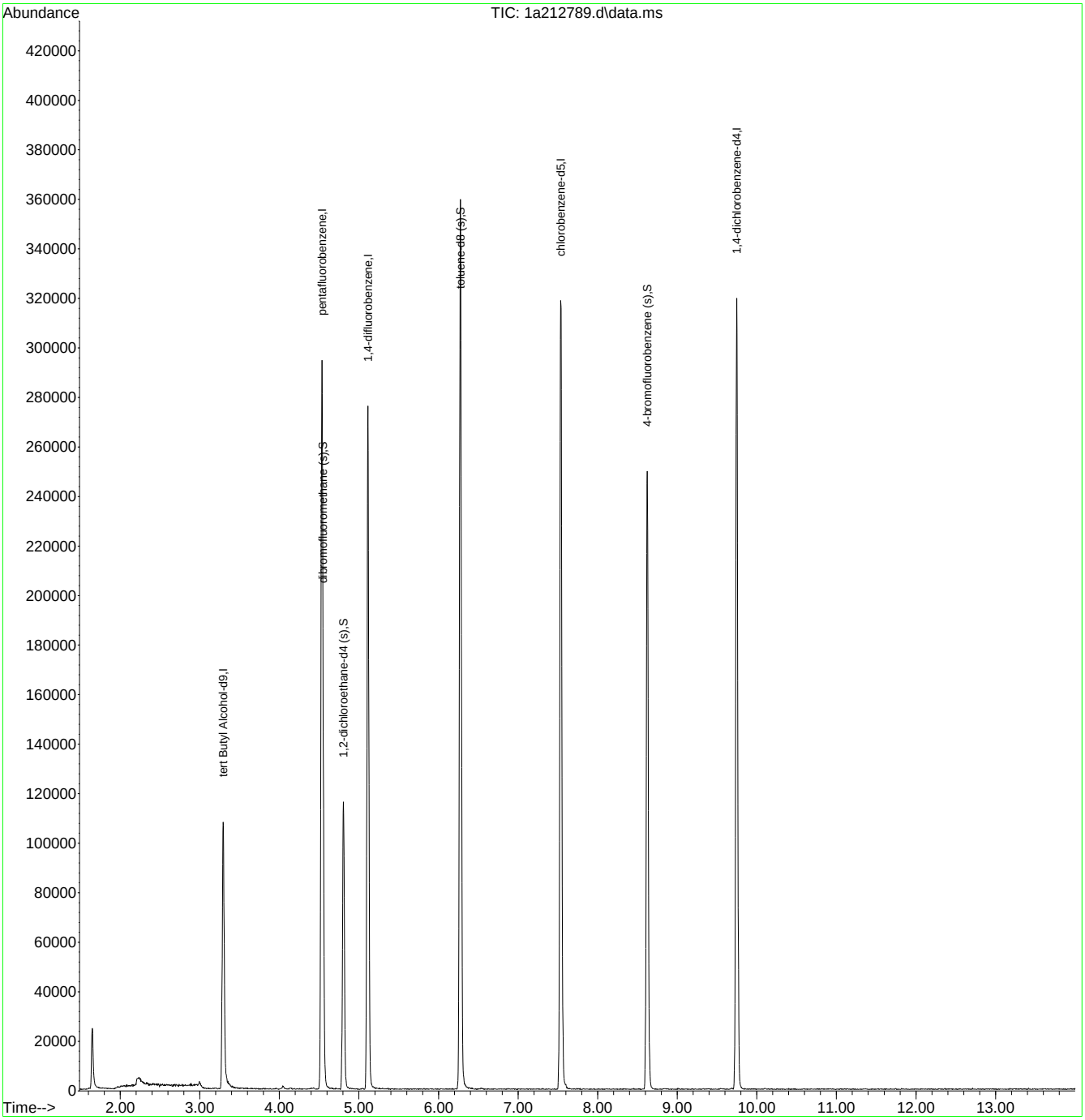
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.294	65	98520	500.00	ug/L	0.00
5) pentafluorobenzene	4.536	168	141514	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	203924	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	185908	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	90050	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.548	113	58986	51.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.44%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	66785	51.38	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.76%			
72) toluene-d8 (s)	6.275	98	229585	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
96) 4-bromofluorobenzene (s)	8.624	95	82279	51.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.10%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\08-10-21\v1a9190\
Data File : 1a212789.d
Acq On : 6 Aug 2021 11:19 pm
Operator : edwardd
Sample : JD29301-10 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 22:27:40 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 08/09/21 19:16

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212787.d
Acq On : 6 Aug 2021 10:29 pm
Operator : edwardd
Sample : mb Inst : MSDTEST1A
Misc : MS37677,V1A9190,w,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:22:58 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

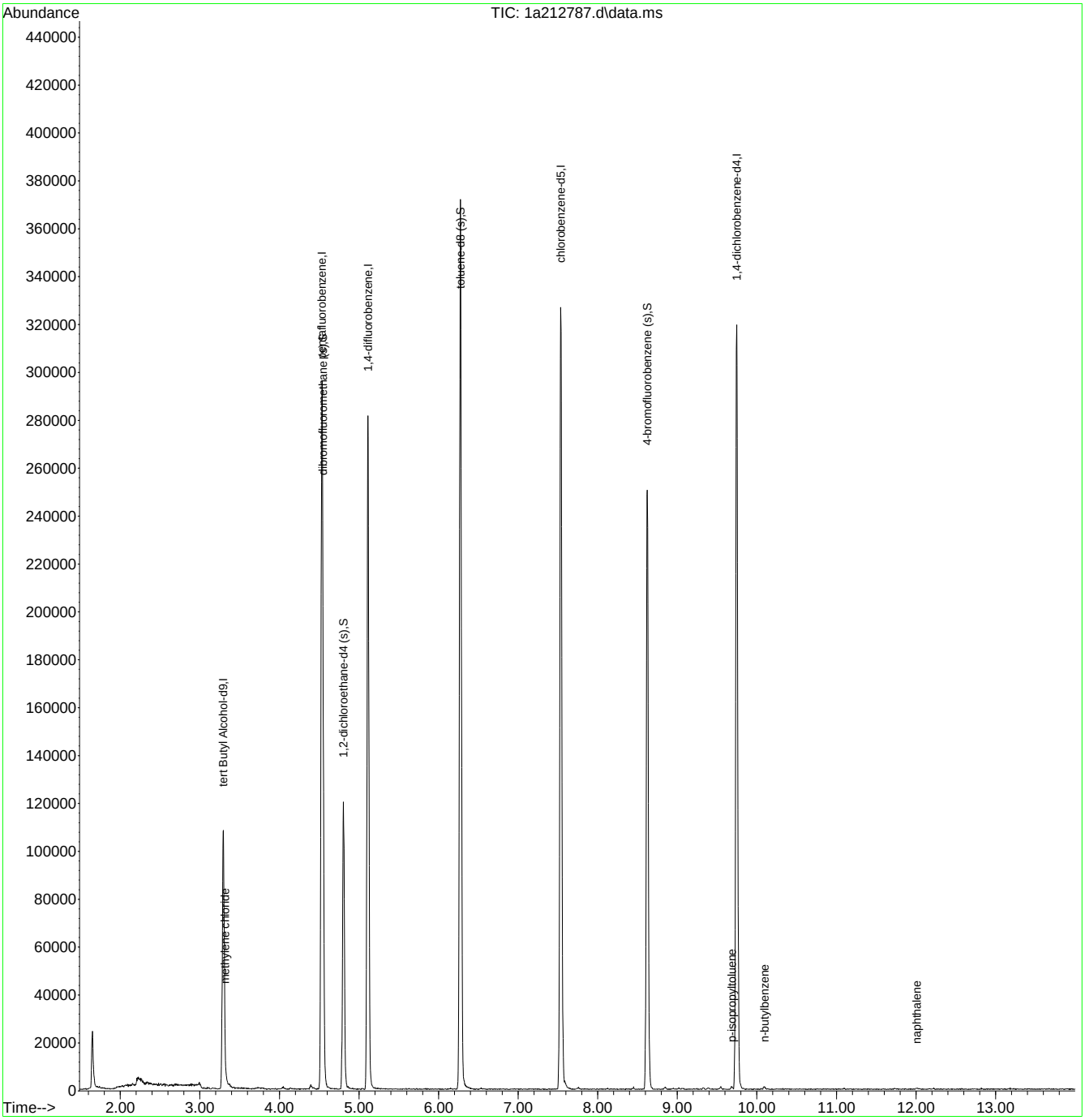
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.293	65	100209	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	144957	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	208275	50.00	ug/L		0.00
71) chlorobenzene-d5	7.536	117	188395	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.747	152	91064	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.545	113	61449	52.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.18%				
51) 1,2-dichloroethane-d4 (s)	4.805	65	69041	52.01	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.02%				
72) toluene-d8 (s)	6.275	98	235184	50.76	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.52%				
96) 4-bromofluorobenzene (s)	8.623	95	82841	51.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.66%				
Target Compounds							Qvalue
22) methylene chloride	3.316	84	309	0.30	ug/L		76
109) p-isopropyltoluene	9.686	119	855	0.20	ug/L		90
113) n-butylbenzene	10.096	92	442	0.24	ug/L	#	53
118) naphthalene	12.009	128	789m	0.21	ug/L		

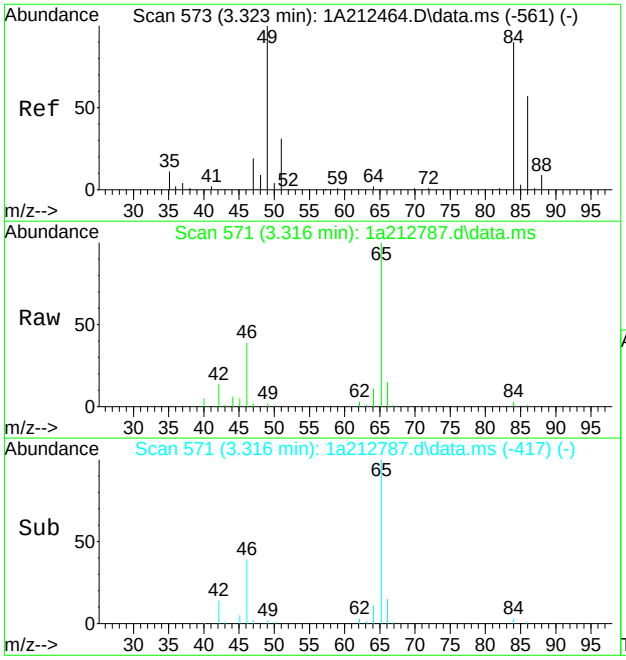
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212787.d
Acq On : 6 Aug 2021 10:29 pm
Operator : edwardd
Sample : mb Inst : MSDTEST1A
Misc : MS37677,V1A9190,w,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:22:58 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

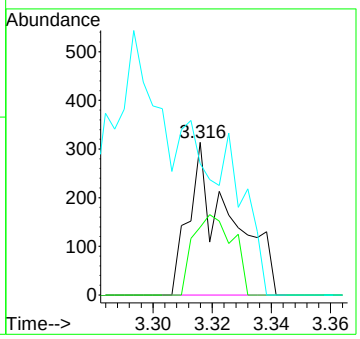


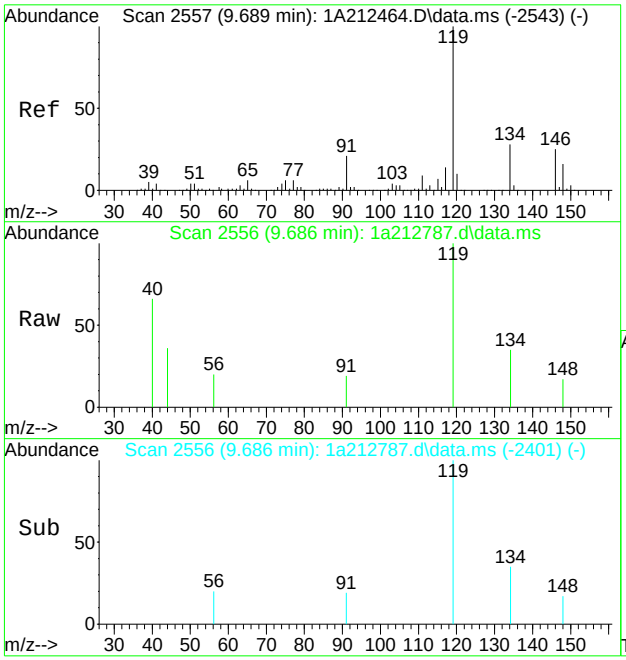


#22
methylene chloride
Concen: 0.30 ug/L
RT: 3.316 min Scan# 571
Delta R.T. -0.007 min
Lab File: 1a212787.d
Acq: 6 Aug 2021 10:29 pm

Tgt Ion: 84 Resp: 309

Ion	Ratio	Lower	Upper
84	100		
86	44.3	33.9	93.9
49	86.0	81.6	141.6

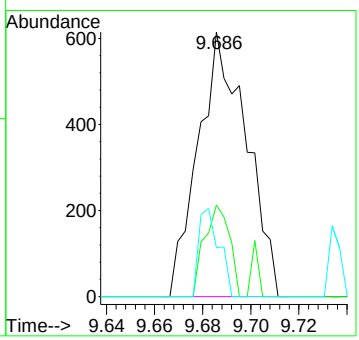


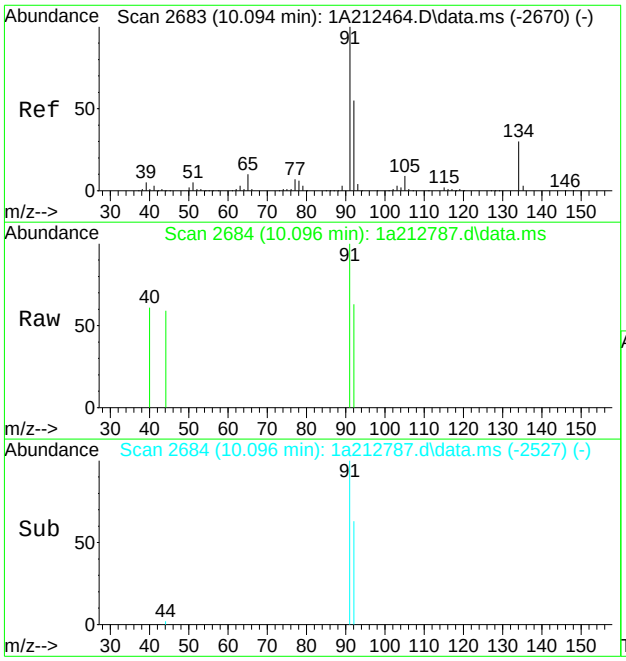


#109
p-isopropyltoluene
Concen: 0.20 ug/L
RT: 9.686 min Scan# 2556
Delta R.T. -0.003 min
Lab File: 1a212787.d
Acq: 6 Aug 2021 10:29 pm

Tgt Ion:119 Resp: 855

Ion	Ratio	Lower	Upper
119	100		
134	34.6	0.0	57.6
91	18.5	0.0	50.9

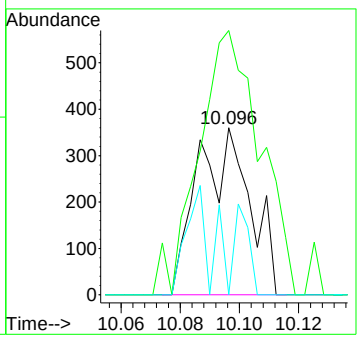


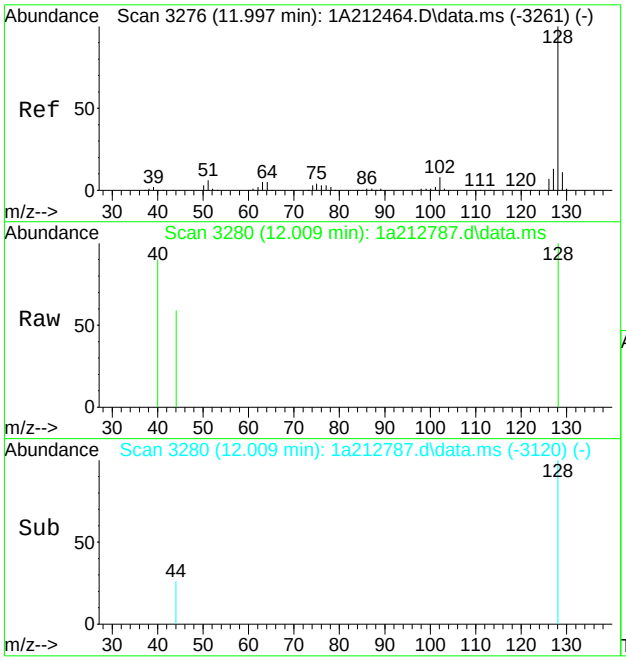


#113
n-butylbenzene
Concen: 0.24 ug/L
RT: 10.096 min Scan# 2684
Delta R.T. 0.002 min
Lab File: 1a212787.d
Acq: 6 Aug 2021 10:29 pm

Tgt Ion: 92 Resp: 442

Ion	Ratio	Lower	Upper
92	100		
91	127.2	152.2	212.2#
134	0.0	24.2	84.2#

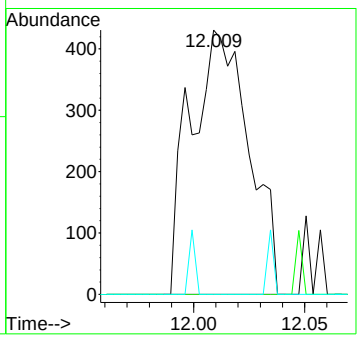




#118
naphthalene
Concen: 0.21 ug/L m
RT: 12.009 min Scan# 3280
Delta R.T. 0.012 min
Lab File: 1a212787.d
Acq: 6 Aug 2021 10:29 pm

Tgt Ion:128 Resp: 789

Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	41.1
127	0.0	0.0	42.9



Manual Integration Approval Summary

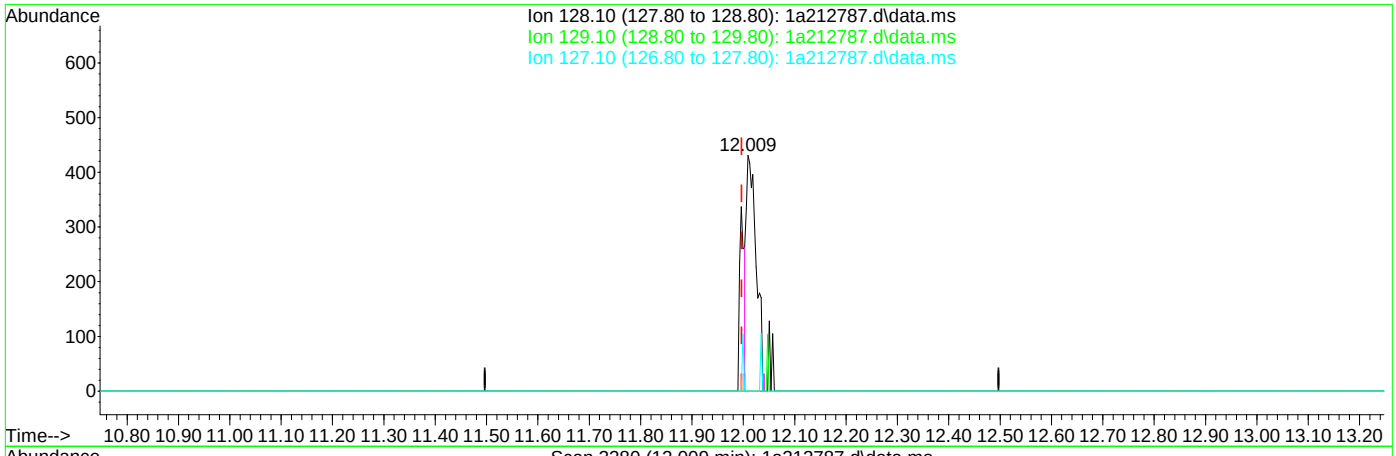
Sample Number:	V1A9190-MB	**Method:**	SW846 8260D
Lab FileID:	1A212787.D	**Analyst approved:**	08/09/21 18:23 Kristel Valladolid
Injection Time:	08/06/21 22:29	**Supervisor approved:**	08/09/21 19:16 Kanya Veerawat

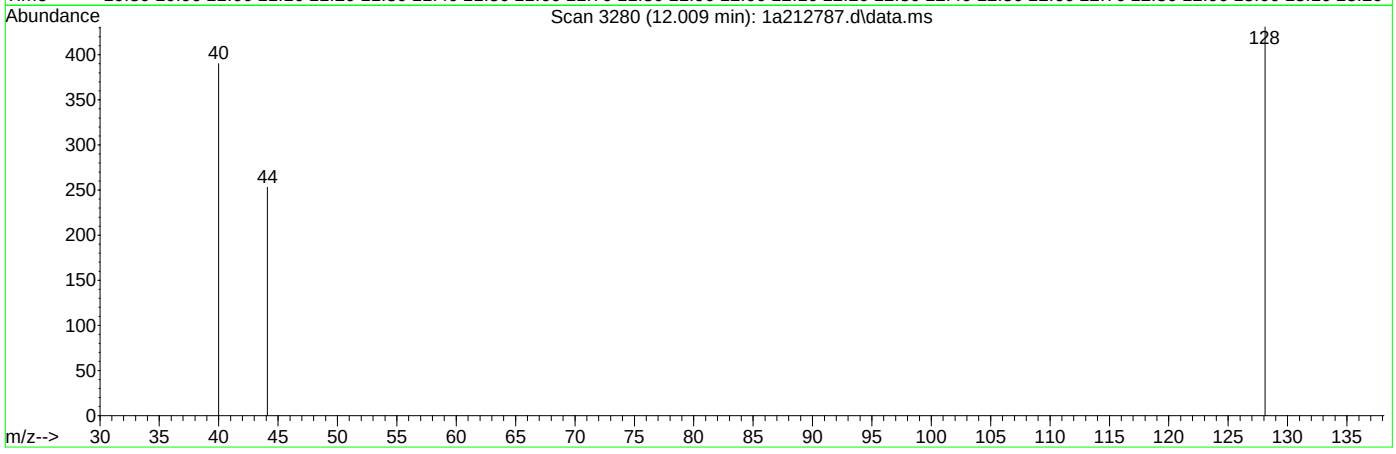
Parameter	CAS	Sig#	R.T. (min.)	Reason
Naphthalene	91-20-3		12.01	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212787.d
Acq On : 6 Aug 2021 10:29 pm
Operator : edwardd
Sample : mb Inst : MSDTEST1A
Misc : MS37677,V1A9190,w,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 09:31:08 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration





TIC: 1a212787.d\data.ms

(118) naphthalene

12.009min (+0.012) 0.15ug/L

response 578

Ion	Exp%	Act%
128.10	100	100
129.10	11.10	0.00
127.10	12.90	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166489.d
Acq On : 9 Aug 2021 11:30 am
Operator : brittank
Sample : mb Inst : MS3B
Misc : MS37677,V3B7507,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:07:25 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

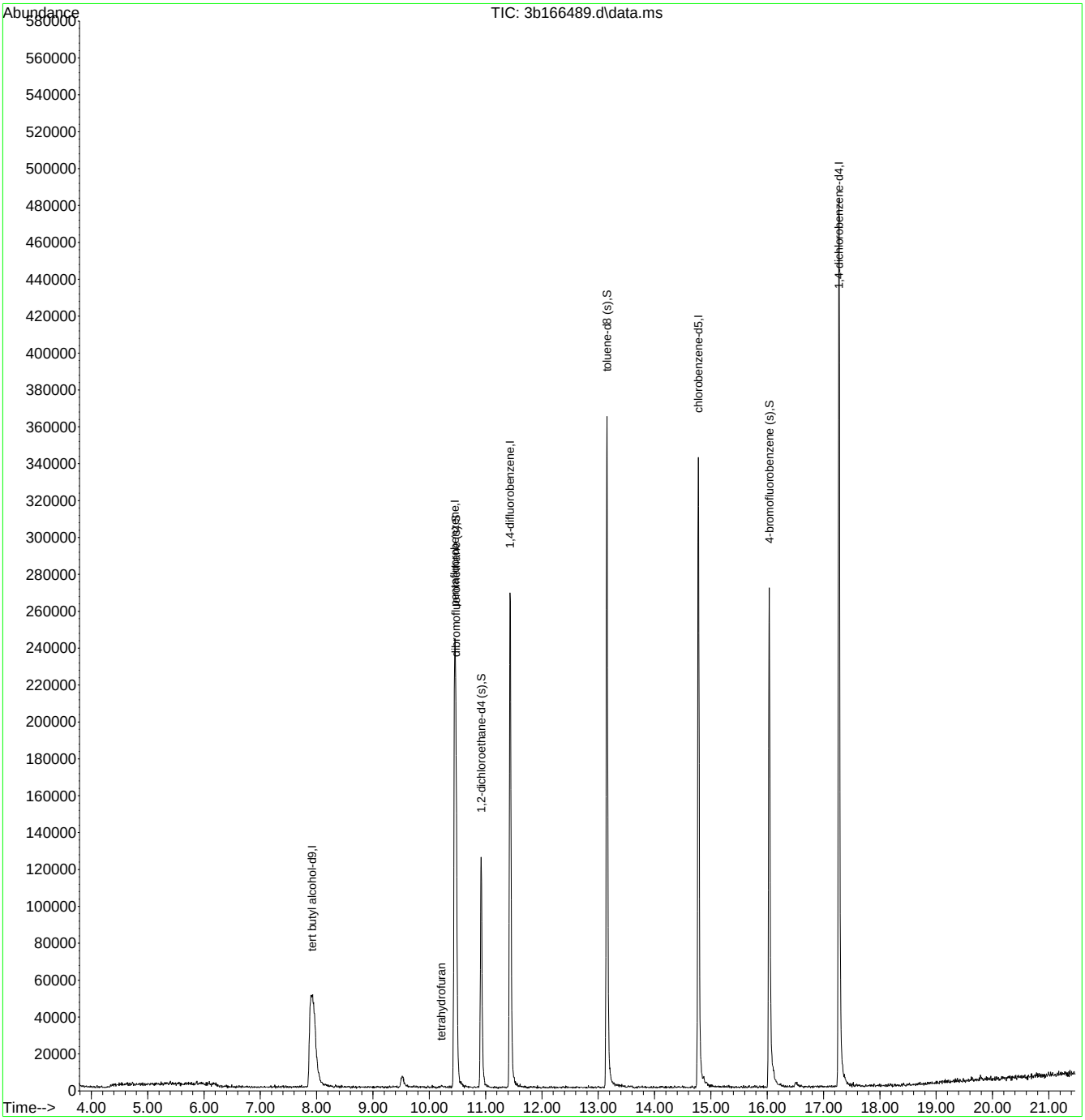
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.919	65	209665	500.00	ug/L	0.02
5) pentafluorobenzene	10.451	168	180666	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.434	114	261298	50.00	ug/L	0.00
74) chlorobenzene-d5	14.776	117	230634	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.271	152	158162	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	10.471	113	96476	53.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.48%			
54) 1,2-dichloroethane-d4 (s)	10.921	65	101715	47.02	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.04%			
75) toluene-d8 (s)	13.155	98	271577	46.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.58%			
99) 4-bromofluorobenzene (s)	16.036	95	106535	42.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.12%			
Target Compounds						Qvalue
42) tetrahydrofuran	10.215	42	736	0.77	ug/L	88

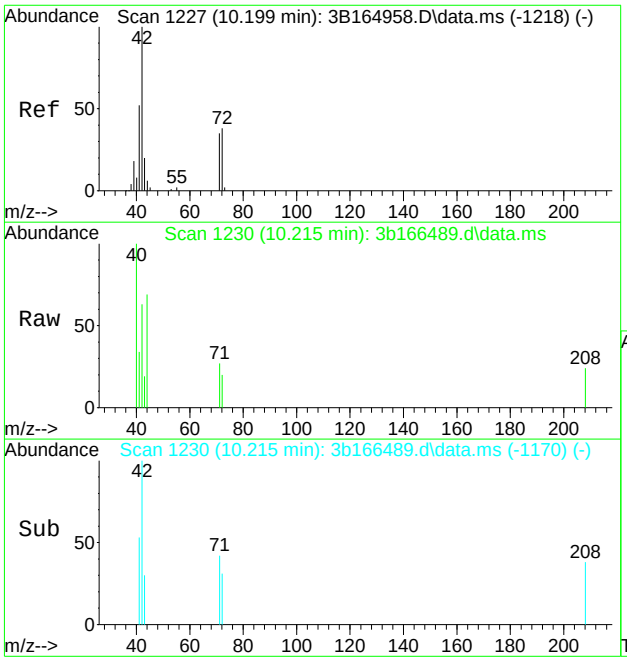
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166489.d
Acq On : 9 Aug 2021 11:30 am
Operator : brittank
Sample : mb Inst : MS3B
Misc : MS37677,V3B7507,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:07:25 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

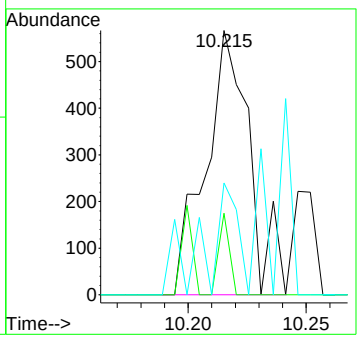




#42
tetrahydrofuran
Concen: 0.77 ug/L
RT: 10.215 min Scan# 1230
Delta R.T. 0.016 min
Lab File: 3b166489.d
Acq: 9 Aug 2021 11:30 am

Tgt Ion: 42 Resp: 736

Ion	Ratio	Lower	Upper
42	100		
72	30.9	7.8	67.8
71	42.3	4.8	64.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212785.d
Acq On : 6 Aug 2021 9:39 pm
Operator : edwardd
Sample : bs Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 09:29:54 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.297	65	101621	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	145074	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	211701	50.00	ug/L		0.00
71) chlorobenzene-d5	7.536	117	207678	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.747	152	105117	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.545	113	60425	51.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.36%				
51) 1,2-dichloroethane-d4 (s)	4.802	65	69970	51.86	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.72%				
72) toluene-d8 (s)	6.275	98	250643	49.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.14%				
96) 4-bromofluorobenzene (s)	8.620	95	92757	49.79	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.556	88	31252	1403.13	ug/L		93
3) ethanol	2.700	45	161251	6311.65	ug/L		93
4) tertiary butyl alcohol	3.355	59	53640	225.50	ug/L		91
6) chlorodifluoromethane	1.821	51	52156	50.52	ug/L		96
7) dichlorodifluoromethane	1.808	85	62484	42.56	ug/L		99
8) chloromethane	1.972	50	63223	48.44	ug/L		97
9) vinyl chloride	2.068	62	72303	52.36	ug/L		99
10) bromomethane	2.328	96	42942	58.19	ug/L		98
11) chloroethane	2.411	64	47625	54.37	ug/L		95
12) trichlorofluoromethane	2.607	101	99883	54.81	ug/L		99
13) ethyl ether	2.796	74	38165	56.88	ug/L		86
14) acrolein	2.902	56	15020	55.90	ug/L		98
15) freon 113	2.976	151	51213	52.07	ug/L		91
16) 1,1-dichloroethene	2.986	96	53910	55.57	ug/L		91
17) acetone	2.995	58	40668	237.21	ug/L		87
18) acetonitrile	3.191	40	55682	525.00	ug/L		96
19) iodomethane	3.104	142	56604	48.76	ug/L		95
20) iso-butyl alcohol	4.683	43	45230	516.71	ug/L		97
21) carbon disulfide	3.169	76	127816	48.07	ug/L		97
22) methylene chloride	3.323	84	50414	48.13	ug/L		97
23) methyl acetate	3.204	74	13942	48.83	ug/L		90
24) methyl tert butyl ether	3.496	73	149608	49.90	ug/L		99
25) trans-1,2-dichloroethene	3.512	96	49476	48.57	ug/L		93
26) hexane	3.692	57	72456	49.51	ug/L		98
27) di-isopropyl ether	3.807	45	168158	53.58	ug/L		97
28) ethyl tert-butyl ether	4.057	59	162035	50.37	ug/L		98
29) 2-butanone	4.179	72	43081	216.24	ug/L		92
30) 1,1-dichloroethane	3.817	63	90303	53.45	ug/L		99
31) chloroprene	3.868	53	75372	51.09	ug/L		96
32) acrylonitrile	3.473	53	28186	57.94	ug/L		96
33) vinyl acetate	3.788	86	11605	43.01	ug/L	#	72
34) ethyl acetate	4.189	45	12553	50.94	ug/L	#	75
35) 2,2-dichloropropane	4.224	77	66905	42.20	ug/L		98
36) cis-1,2-dichloroethene	4.211	96	57107	51.56	ug/L		98
37) propionitrile	4.228	54	129945	563.10	ug/L		92
38) methyl acrylate	4.234	85	13009	54.01	ug/L	#	83
39) bromochloromethane	4.378	128	28776	48.29	ug/L		87
40) tetrahydrofuran	4.394	72	12868	47.75	ug/L		90
41) chloroform	4.433	83	92322	48.41	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212785.d
Acq On : 6 Aug 2021 9:39 pm
Operator : edwardd
Sample : bs Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 09:29:54 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) methacrylonitrile	4.340	67	30870	53.21	ug/L		98
44) 1,1,1-trichloroethane	4.580	97	78854	47.54	ug/L		98
45) cyclohexane	4.641	84	71598	47.88	ug/L		90
46) 1,1-dichloropropene	4.690	75	70487	50.90	ug/L		97
47) carbon tetrachloride	4.696	117	70528	45.76	ug/L		98
48) isopropyl acetate	4.802	87	17165	50.28	ug/L	#	91
49) tert amyl alcohol	4.779	55	26841	307.64	ug/L	#	52
52) tert-amyl methyl ether	4.895	73	165709	47.43	ug/L		97
53) 2,2,4-trimethylpentane	4.901	57	146343	50.09	ug/L		95
54) n-butyl alcohol	5.165	56	167897	2503.25	ug/L		98
55) benzene	4.840	78	207402	49.31	ug/L		99
56) heptane	5.010	57	28644	47.17	ug/L		98
57) 1,2-dichloroethane	4.863	62	71593	47.79	ug/L		96
58) trichloroethene	5.312	95	55035	49.64	ug/L		94
59) ethyl acrylate	5.322	55	94398	53.08	ug/L		98
61) 2-chloroethyl vinyl ether	5.893	63	218488	275.39	ug/L		97
62) methyl methacrylate	5.505	100	20800	48.14	ug/L	#	86
63) 1,2-dichloropropane	5.514	63	53012	51.71	ug/L		95
64) methylcyclohexane	5.508	83	93936	50.28	ug/L		96
65) dibromomethane	5.582	93	34832	50.16	ug/L		90
66) bromodichloromethane	5.700	83	70581	48.05	ug/L		99
67) cis-1,3-dichloropropene	6.044	75	85112	48.56	ug/L		97
68) epichlorohydrin	5.947	57	45887	245.18	ug/L		99
69) 4-methyl-2-pentanone	6.140	58	134560	221.27	ug/L		96
70) 3-methyl-1-butanol	6.156	70	64203	1001.51	ug/L		91
73) toluene	6.333	92	135775	46.41	ug/L		99
74) trans-1,3-dichloropropene	6.499	75	79144	44.63	ug/L		97
75) ethyl methacrylate	6.512	69	88422	50.08	ug/L		98
76) 1,1,2-trichloroethane	6.673	83	43613	50.13	ug/L		97
77) 2-hexanone	6.833	58	143578	212.00	ug/L		92
78) tetrachloroethene	6.775	166	64050	43.79	ug/L		94
79) 1,3-dichloropropane	6.820	76	88627	48.82	ug/L		98
80) butyl acetate	6.917	56	52600	51.67	ug/L		97
81) dibromochloromethane	7.013	129	59585	43.74	ug/L		99
82) 1,2-dibromoethane	7.132	107	57567	46.09	ug/L		99
83) n-butyl ether	7.597	57	227058	48.22	ug/L		98
84) chlorobenzene	7.562	112	152608	45.23	ug/L		95
85) 1,1,1,2-tetrachloroethane	7.629	131	55570	44.28	ug/L		98
86) ethylbenzene	7.635	91	257174	46.58	ug/L		98
87) m,p-xylene	7.751	106	202912	92.06	ug/L		95
88) o-xylene	8.113	106	101366	46.59	ug/L		96
89) butyl acrylate	8.017	55	123845	51.58	ug/L		99
90) n-amyl acetate	8.223	70	53034	50.10	ug/L		97
91) styrene	8.126	104	176003	47.90	ug/L		100
92) bromoform	8.309	173	47181	43.20	ug/L		98
93) isopropylbenzene	8.447	105	259105	46.58	ug/L		99
94) cis-1,4-dichloro-2-butene	8.495	88	26368	44.93	ug/L		85
97) bromobenzene	8.771	156	69619	45.52	ug/L		95
98) 1,1,2,2-tetrachloroethane	8.730	83	79020	49.18	ug/L		97
99) trans-1,4-dichloro-2-b...	8.765	53	22402	48.85	ug/L		89
100) 1,2,3-trichloropropane	8.797	110	25722	45.92	ug/L		96
101) n-propylbenzene	8.845	91	288796	46.05	ug/L		98
102) 2-chlorotoluene	8.945	126	61272	45.20	ug/L		96
103) 4-chlorotoluene	9.060	126	62420	45.83	ug/L		95
104) 1,3,5-trimethylbenzene	9.015	105	200384	44.94	ug/L		98
105) tert-butylbenzene	9.323	119	177938	44.45	ug/L		99
106) 1,2,4-trimethylbenzene	9.384	105	207956	45.70	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212785.d
Acq On : 6 Aug 2021 9:39 pm
Operator : edwardd
Sample : bs Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 09:29:54 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

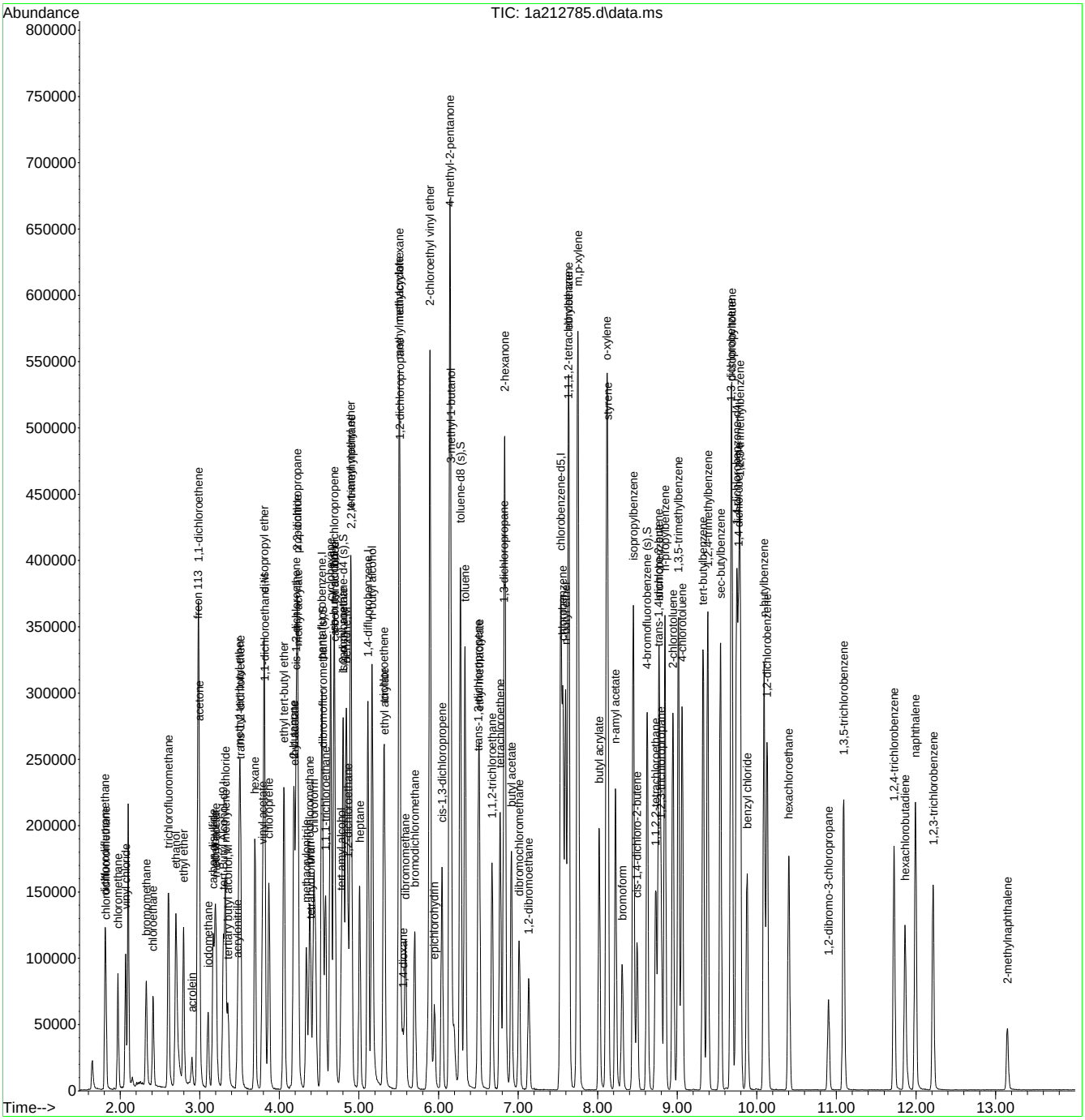
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) sec-butylbenzene	9.545	105	251253	44.77	ug/L	97
108) 1,3-dichlorobenzene	9.676	146	125500	45.23	ug/L	98
109) p-isopropyltoluene	9.686	119	219243	44.77	ug/L	98
110) 1,2,3-trimethylbenzene	9.789	105	212989	45.92	ug/L	99
111) 1,4-dichlorobenzene	9.769	146	126729	44.72	ug/L	99
112) 1,2-dichlorobenzene	10.129	146	120672	46.63	ug/L	100
113) n-butylbenzene	10.090	92	100385	47.36	ug/L	94
114) 1,2-dibromo-3-chloropr...	10.902	157	21904	41.82	ug/L	97
115) 1,3,5-trichlorobenzene	11.091	180	79251	42.55	ug/L	92
116) 1,2,4-trichlorobenzene	11.724	180	63355	42.59	ug/L	99
117) hexachlorobutadiene	11.861	225	26114	39.69	ug/L	94
118) naphthalene	11.993	128	194645	45.06	ug/L	96
119) 1,2,3-trichlorobenzene	12.218	180	54167	42.26	ug/L	99
120) hexachloroethane	10.398	119	35400	41.97	ug/L	90
121) benzyl chloride	9.878	91	126015	37.96	ug/L	97
122) 2-methylnaphthalene	13.148	142	28233	16.39	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212785.d
Acq On : 6 Aug 2021 9:39 pm
Operator : edwardd
Sample : bs Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 09:29:54 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166487.d
Acq On : 9 Aug 2021 10:31 am
Operator : jons2
Sample : bs Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:04:45 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.898	65	220838	500.00	ug/L		0.00
5) pentafluorobenzene	10.445	168	179183	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	264304	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	251936	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.271	152	163110	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.472	113	91757	51.05	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.10%				
54) 1,2-dichloroethane-d4 (s)	10.916	65	95291	43.55	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 87.10%				
75) toluene-d8 (s)	13.149	98	296558	46.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.56%				
99) 4-bromofluorobenzene (s)	16.031	95	111979	43.38	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.76%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.039	59	155399	265.84	ug/L		95
4) 1,4-dioxane	12.103	88	54639	1590.75	ug/L		95
6) chlorodifluoromethane	4.117	51	228396	46.97	ug/L		97
7) dichlorodifluoromethane	4.117	85	223242	35.30	ug/L		99
8) chloromethane	4.525	50	242186	38.12	ug/L		97
9) vinyl chloride	4.786	62	231959	44.24	ug/L		98
10) 1,3-butadiene	4.833	54	141375	46.25	ug/L		95
11) bromomethane	5.503	94	183622	56.46	ug/L		95
12) chloroethane	5.681	64	102337	52.29	ug/L		91
13) trichlorofluoromethane	6.240	101	273352	53.64	ug/L		97
15) ethyl ether	6.674	74	47212	50.74	ug/L		89
16) acrolein	6.910	56	21841	61.93	ug/L		97
17) freon 113	7.176	151	150855	62.67	ug/L		90
18) 1,1-dichloroethene	7.145	96	104458	59.48	ug/L		89
19) acetone	7.135	58	57582	164.77	ug/L	#	81
20) acetonitrile	7.584	41	260093	499.19	ug/L		98
21) iodomethane	7.433	142	250227	60.88	ug/L		98
22) carbon disulfide	7.605	76	417103	53.95	ug/L		98
23) methylene chloride	7.956	84	128177	59.13	ug/L		95
24) methyl acetate	7.684	43	94973	44.48	ug/L		90
25) methyl tert butyl ether	8.385	73	417230	49.28	ug/L		95
26) trans-1,2-dichloroethene	8.421	96	99450	54.22	ug/L		99
27) hexane	8.834	56	69944	49.86	ug/L		97
28) di-isopropyl ether	9.070	45	396042	50.19	ug/L		96
29) 2-butanone	9.765	72	64189	203.61	ug/L	#	73
30) 1,1-dichloroethane	9.059	63	179957	55.86	ug/L		98
31) chloroprene	9.174	53	132750	50.33	ug/L		90
32) acrylonitrile	8.275	53	48616	54.04	ug/L		97
33) vinyl acetate	9.007	86	21168	71.72	ug/L	#	61
34) ethyl tert-butyl ether	9.588	59	429899	52.67	ug/L		99
35) ethyl acetate	9.807	45	19245	49.85	ug/L	#	62
36) 2,2-dichloropropane	9.881	77	225488	57.38	ug/L		94
37) cis-1,2-dichloroethene	9.844	96	110348	53.83	ug/L		95
38) propionitrile	9.828	54	213172	532.47	ug/L		98
39) methyl acrylate	9.901	85	17434	49.70	ug/L	#	45
40) methacrylonitrile	10.053	67	48124	51.38	ug/L		95
41) bromochloromethane	10.168	128	64169	59.36	ug/L		93
42) tetrahydrofuran	10.194	42	44656	47.08	ug/L		95
43) chloroform	10.268	83	184461	50.21	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166487.d
Acq On : 9 Aug 2021 10:31 am
Operator : jons2
Sample : bs Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:04:45 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tert-Butyl Formate	10.299	59	144791	97.92	ug/L		97
46) 1,1,1-trichloroethane	10.550	97	223243	57.14	ug/L		98
47) cyclohexane	10.681	84	199580	55.14	ug/L		85
48) isobutyl alcohol	10.900	43	269679	497.09	ug/L		97
49) 1,1-dichloropropene	10.728	75	123857	52.64	ug/L		95
50) carbon tetrachloride	10.764	117	206226	62.64	ug/L		96
51) tert-amyl alcohol	10.869	73	75144	259.63	ug/L		90
52) isopropyl acetate	10.906	87	28007	58.02	ug/L	#	55
55) n-butyl alcohol	11.471	56	323930	2797.57	ug/L		95
56) 2,2,4-trimethylpentane	11.104	57	450609	54.19	ug/L		98
57) benzene	10.989	78	377933	53.62	ug/L		97
58) tert-amyl methyl ether	11.089	73	437650	55.85	ug/L		98
59) heptane	11.282	57	67141	49.76	ug/L		92
60) 1,2-dichloroethane	11.015	62	142152	50.37	ug/L		96
61) ethyl acrylate	11.748	55	142765	49.64	ug/L		96
62) trichloroethene	11.758	95	99086	52.62	ug/L		99
63) 2-chloroethyl vinyl ether	12.585	63	367959	443.54	ug/L		96
64) methyl methacrylate	12.025	100	29195	50.41	ug/L	#	64
65) methylcyclohexane	12.082	83	226293	53.91	ug/L		92
66) 1,2-dichloropropane	12.056	63	104141	53.44	ug/L		98
67) dibromomethane	12.171	93	74553	58.17	ug/L		93
68) bromodichloromethane	12.339	83	146883	55.09	ug/L		99
69) 2-nitropropane	12.522	41	35308	54.41	ug/L		91
70) epichlorohydrin	12.663	57	78021	280.20	ug/L		94
71) cis-1,3-dichloropropene	12.820	75	168585	56.54	ug/L		89
72) 4-methyl-2-pentanone	12.909	58	247593	227.82	ug/L		91
73) isoamyl alcohol	12.919	70	136028	1293.06	ug/L		94
76) toluene	13.233	92	233205	54.89	ug/L		95
77) ethyl methacrylate	13.416	69	141745	51.74	ug/L		91
78) trans-1,3-dichloropropene	13.427	75	151793	55.05	ug/L		84
79) 1,1,2-trichloroethane	13.662	83	83913	55.82	ug/L		96
80) tetrachloroethene	13.835	164	92500	55.31	ug/L		91
81) 2-hexanone	13.819	58	218034	206.27	ug/L		97
82) 1,3-dichloropropane	13.850	76	152406	54.56	ug/L		97
83) butyl acetate	13.924	56	85493	54.68	ug/L		93
84) dibromochloromethane	14.127	129	130242	59.89	ug/L		98
85) 1,2-dibromoethane	14.295	107	110472	52.48	ug/L		99
86) n-butyl ether	14.771	57	419931	51.04	ug/L		99
87) chlorobenzene	14.813	112	279208	57.44	ug/L		94
88) 1,1,1,2-tetrachloroethane	14.881	131	149184	61.76	ug/L		99
89) ethylbenzene	14.875	91	444834	52.73	ug/L		97
90) m,p-xylene	15.001	106	365519	113.42	ug/L		96
91) o-xylene	15.435	91	422656	55.75	ug/L		96
92) styrene	15.451	104	302390	56.26	ug/L		92
93) butyl acrylate	15.242	55	222521	49.15	ug/L		98
94) n-amyl acetate	15.466	70	93564	61.06	ug/L		89
95) isopropylbenzene	15.812	105	578018	57.77	ug/L		98
96) bromoform	15.702	173	115828	66.93	ug/L		97
97) cis-1,4-dichloro-2-butene	15.838	88	60015	55.05	ug/L		95
100) 1,1,2,2-tetrachloroethane	16.094	83	186503	56.08	ug/L		99
101) trans-1,4-dichloro-2-b...	16.125	53	45777	49.53	ug/L		98
102) 1,2,3-trichloropropane	16.193	110	50210	55.70	ug/L		92
103) bromobenzene	16.230	156	147874	57.42	ug/L		87
104) n-propylbenzene	16.256	91	594736	54.62	ug/L		98
105) 2-chlorotoluene	16.397	126	140688	57.98	ug/L		93
106) 4-chlorotoluene	16.518	91	354194	52.57	ug/L		96
107) 1,3,5-trimethylbenzene	16.424	105	487514	54.12	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166487.d
Acq On : 9 Aug 2021 10:31 am
Operator : jons2
Sample : bs Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:04:45 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

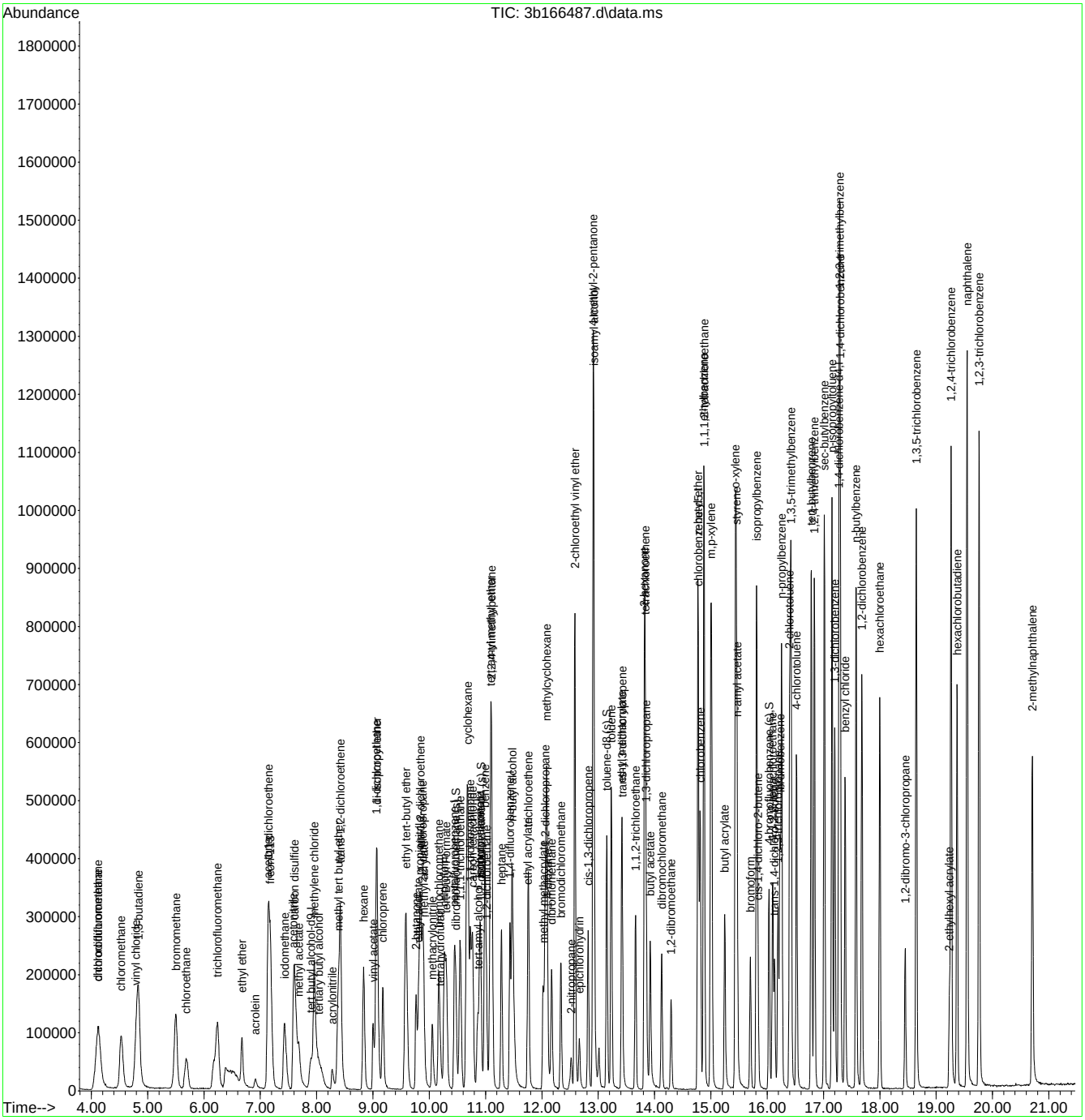
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	16.784	119	466990	57.30	ug/L	95
109) 1,2,4-trimethylbenzene	16.837	105	487947	55.05	ug/L	96
110) sec-butylbenzene	17.015	105	705002	56.05	ug/L	98
111) p-isopropyltoluene	17.151	119	595643	55.46	ug/L	98
112) 1,2,3-trimethylbenzene	17.287	105	579346	54.11	ug/L	96
113) 1,3-dichlorobenzene	17.198	146	281431	56.03	ug/L	99
114) 1,4-dichlorobenzene	17.297	146	285293	54.12	ug/L	98
115) 1,2-dichlorobenzene	17.679	146	324623	57.08	ug/L	98
116) benzyl chloride	17.381	91	407698	68.56	ug/L	98
117) n-butylbenzene	17.574	92	279764	54.85	ug/L	99
118) hexachloroethane	17.998	201	131496	59.08	ug/L	96
119) 1,2-dibromo-3-chloropr...	18.453	157	79450	57.02	ug/L	97
120) 1,3,5-trichlorobenzene	18.646	180	347942	60.37	ug/L	97
121) 2-ethylhexyl acrylate	19.232	70	40725	10.22	ug/L	89
122) 1,2,4-trichlorobenzene	19.264	180	380410	58.28	ug/L	98
123) hexachlorobutadiene	19.373	225	155868	56.28	ug/L	95
124) naphthalene	19.551	128	1102864	57.44	ug/L	97
125) 1,2,3-trichlorobenzene	19.760	180	418220	58.62	ug/L	100
126) 2-methylnaphthalene	20.707	142	338968	29.61	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166487.d
Acq On : 9 Aug 2021 10:31 am
Operator : jons2
Sample : bs Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:04:45 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212795.d
Acq On : 7 Aug 2021 1:49 am
Operator : edwardd
Sample : JD29301-8ms Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:16 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.297	65	95154	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	140070	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	202826	50.00	ug/L		0.00
71) chlorobenzene-d5	7.536	117	198716	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.747	152	99110	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.548	113	58086	50.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.92%				
51) 1,2-dichloroethane-d4 (s)	4.805	65	66288	51.28	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.56%				
72) toluene-d8 (s)	6.275	98	239676	49.04	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.08%				
96) 4-bromofluorobenzene (s)	8.624	95	88436	50.35	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.553	88	28640	1373.25	ug/L		96
3) ethanol	2.700	45	143445	5996.28	ug/L		99
4) tertiary butyl alcohol	3.355	59	57020	256.00	ug/L		92
6) chlorodifluoromethane	1.824	51	51846	52.01	ug/L		96
7) dichlorodifluoromethane	1.811	85	68910	48.62	ug/L		99
8) chloromethane	1.972	50	66423	52.71	ug/L		99
9) vinyl chloride	2.068	62	80654	60.49	ug/L		98
10) bromomethane	2.328	96	43988	61.78	ug/L		98
11) chloroethane	2.414	64	49585	58.63	ug/L		94
12) trichlorofluoromethane	2.607	101	107489	61.09	ug/L		96
13) ethyl ether	2.796	74	35333	54.54	ug/L		87
14) acrolein	2.902	56	14917	57.50	ug/L		94
15) freon 113	2.973	151	50101	52.76	ug/L		94
16) 1,1-dichloroethene	2.986	96	53284	56.88	ug/L		91
17) acetone	2.995	58	35413	213.94	ug/L		88
18) acetonitrile	3.191	40	51314	501.10	ug/L		97
19) iodomethane	3.104	142	50958	45.46	ug/L		93
20) iso-butyl alcohol	4.683	43	38446	454.90	ug/L		95
21) carbon disulfide	3.165	76	128537	50.06	ug/L		98
22) methylene chloride	3.322	84	48180	47.64	ug/L		94
23) methyl acetate	3.207	74	11737	42.58	ug/L	#	85
24) methyl tert butyl ether	3.493	73	138123	47.72	ug/L		99
25) trans-1,2-dichloroethene	3.512	96	49105	49.93	ug/L		93
26) hexane	3.695	57	70905	50.18	ug/L		98
27) di-isopropyl ether	3.807	45	160800	53.06	ug/L		99
28) ethyl tert-butyl ether	4.057	59	150857	48.57	ug/L		97
29) 2-butanone	4.179	72	38140	198.28	ug/L		91
30) 1,1-dichloroethane	3.817	63	87556	53.67	ug/L		99
31) chloroprene	3.871	53	76569	53.75	ug/L		96
32) acrylonitrile	3.473	53	27924	59.45	ug/L		95
33) vinyl acetate	3.785	86	11729	45.03	ug/L	#	72
34) ethyl acetate	4.189	45	11164	46.92	ug/L	#	66
35) 2,2-dichloropropane	4.221	77	60825	39.73	ug/L		99
36) cis-1,2-dichloroethene	4.211	96	57519	53.79	ug/L		97
37) propionitrile	4.231	54	118348	531.17	ug/L		96
38) methyl acrylate	4.234	85	11848	50.95	ug/L	#	64
39) bromochloromethane	4.378	128	27635	48.03	ug/L		90
40) tetrahydrofuran	4.397	72	11686	44.91	ug/L		98
41) chloroform	4.430	83	85846	46.62	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212795.d
Acq On : 7 Aug 2021 1:49 am
Operator : edwardd
Sample : JD29301-8ms Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:16 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) methacrylonitrile	4.340	67	28349	50.61	ug/L		97
44) 1,1,1-trichloroethane	4.580	97	77163	48.19	ug/L		97
45) cyclohexane	4.641	84	76235	52.81	ug/L		92
46) 1,1-dichloropropene	4.689	75	70626	52.82	ug/L		97
47) carbon tetrachloride	4.696	117	70023	47.05	ug/L		97
48) isopropyl acetate	4.802	87	15160	45.99	ug/L		94
49) tert amyl alcohol	4.779	55	26607	315.86	ug/L	#	53
52) tert-amyl methyl ether	4.895	73	154251	46.08	ug/L		95
53) 2,2,4-trimethylpentane	4.901	57	140161	50.07	ug/L		98
54) n-butyl alcohol	5.164	56	151502	2357.65	ug/L		99
55) benzene	4.840	78	200189	49.68	ug/L		99
56) heptane	5.007	57	27761	47.72	ug/L		96
57) 1,2-dichloroethane	4.863	62	66955	46.65	ug/L		96
58) trichloroethene	5.312	95	52977	49.87	ug/L		91
59) ethyl acrylate	5.322	55	88801	52.12	ug/L		99
62) methyl methacrylate	5.505	100	20131	48.63	ug/L	#	79
63) 1,2-dichloropropane	5.514	63	51389	52.32	ug/L		94
64) methylcyclohexane	5.505	83	92847	51.87	ug/L		98
65) dibromomethane	5.585	93	32479	48.82	ug/L		97
66) bromodichloromethane	5.700	83	66470	47.23	ug/L		99
67) cis-1,3-dichloropropene	6.044	75	79169	47.15	ug/L		99
68) epichlorohydrin	5.947	57	21396	119.33	ug/L		92
69) 4-methyl-2-pentanone	6.140	58	128125	219.91	ug/L		97
70) 3-methyl-1-butanol	6.153	70	61591	1002.80	ug/L		97
73) toluene	6.332	92	131407	46.94	ug/L		97
74) trans-1,3-dichloropropene	6.499	75	72112	42.49	ug/L		96
75) ethyl methacrylate	6.512	69	81079	47.99	ug/L		98
76) 1,1,2-trichloroethane	6.673	83	40699	48.89	ug/L		99
77) 2-hexanone	6.833	58	138048	213.02	ug/L		95
78) tetrachloroethene	6.775	166	62506	44.66	ug/L		96
79) 1,3-dichloropropane	6.820	76	82439	47.46	ug/L		97
80) butyl acetate	6.913	56	45319	46.53	ug/L		91
81) dibromochloromethane	7.016	129	55852	42.85	ug/L		97
82) 1,2-dibromoethane	7.135	107	53081	44.42	ug/L		99
83) n-butyl ether	7.597	57	218508	48.50	ug/L		98
84) chlorobenzene	7.561	112	147372	45.65	ug/L		98
85) 1,1,1,2-tetrachloroethane	7.629	131	52635	43.84	ug/L		99
86) ethylbenzene	7.635	91	248559	47.05	ug/L		98
87) m,p-xylene	7.751	106	194278	92.12	ug/L		90
88) o-xylene	8.110	106	96953	46.58	ug/L		99
89) butyl acrylate	8.017	55	116220	50.59	ug/L		99
90) n-amyl acetate	8.226	70	46530	45.94	ug/L		95
91) styrene	8.126	104	167596	47.67	ug/L		98
92) bromoform	8.306	173	43545	41.67	ug/L		98
93) isopropylbenzene	8.447	105	249726	46.92	ug/L		99
94) cis-1,4-dichloro-2-butene	8.495	88	23133	41.19	ug/L		89
97) bromobenzene	8.771	156	65904	45.70	ug/L		96
98) 1,1,2,2-tetrachloroethane	8.729	83	74600	49.24	ug/L		95
99) trans-1,4-dichloro-2-b...	8.768	53	19803	45.80	ug/L		91
100) 1,2,3-trichloropropane	8.794	110	23831	45.12	ug/L		98
101) n-propylbenzene	8.845	91	278286	47.06	ug/L		99
102) 2-chlorotoluene	8.944	126	57589	45.06	ug/L		96
103) 4-chlorotoluene	9.060	126	59891	46.64	ug/L		91
104) 1,3,5-trimethylbenzene	9.015	105	192087	45.69	ug/L		99
105) tert-butylbenzene	9.326	119	171482	45.44	ug/L		97
106) 1,2,4-trimethylbenzene	9.384	105	197651	46.07	ug/L		97
107) sec-butylbenzene	9.545	105	243767	46.07	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212795.d
Acq On : 7 Aug 2021 1:49 am
Operator : edwardd
Sample : JD29301-8ms Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:16 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

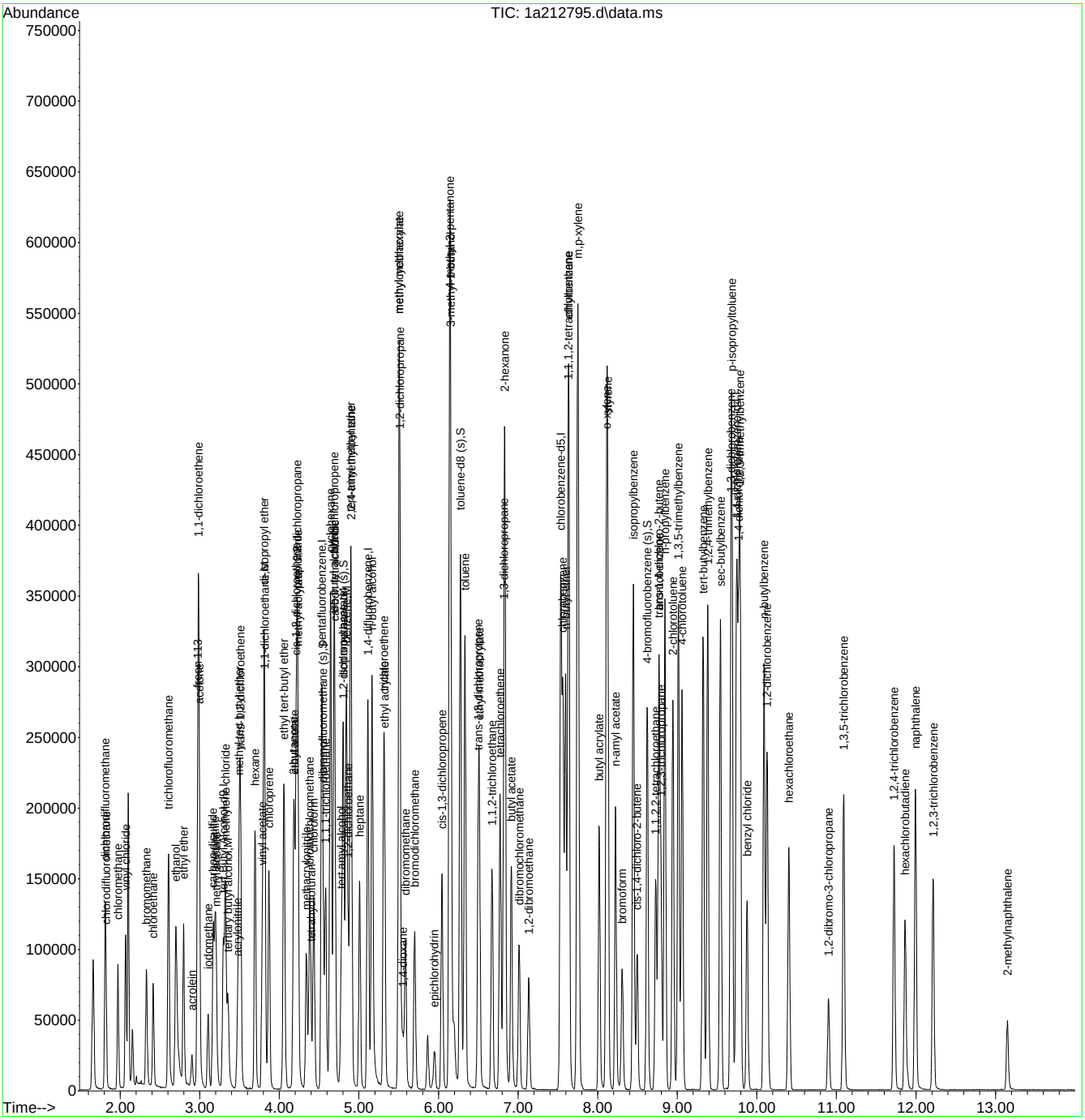
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3-dichlorobenzene	9.673	146	118453	45.28	ug/L	95
109) p-isopropyltoluene	9.686	119	209023	45.27	ug/L	98
110) 1,2,3-trimethylbenzene	9.788	105	199022	45.51	ug/L	99
111) 1,4-dichlorobenzene	9.769	146	119631	44.77	ug/L	98
112) 1,2-dichlorobenzene	10.129	146	110778	45.40	ug/L	98
113) n-butylbenzene	10.090	92	95820	47.95	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.902	157	20898	42.31	ug/L	92
115) 1,3,5-trichlorobenzene	11.091	180	75003	42.71	ug/L	98
116) 1,2,4-trichlorobenzene	11.723	180	61441	43.80	ug/L	98
117) hexachlorobutadiene	11.861	225	24783	39.95	ug/L	96
118) naphthalene	11.996	128	188059	46.17	ug/L	99
119) 1,2,3-trichlorobenzene	12.218	180	52246	43.23	ug/L	99
120) hexachloroethane	10.401	119	34302	43.14	ug/L	91
121) benzyl chloride	9.878	91	101544	32.44	ug/L	95
122) 2-methylnaphthalene	13.148	142	28048	17.14	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212795.d
Acq On : 7 Aug 2021 1:49 am
Operator : edwardd
Sample : JD29301-8ms Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:16 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212796.d
Acq On : 7 Aug 2021 2:14 am
Operator : edwardd
Sample : JD29301-8msd Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:27 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.297	65	102912	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	146892	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	211094	50.00	ug/L		0.00
71) chlorobenzene-d5	7.536	117	208881	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.747	152	103466	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.545	113	61108	51.12	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.24%				
51) 1,2-dichloroethane-d4 (s)	4.805	65	69364	51.56	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.12%				
72) toluene-d8 (s)	6.275	98	252962	49.24	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.48%				
96) 4-bromofluorobenzene (s)	8.621	95	92873	50.65	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.30%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.550	88	32983	1462.27	ug/L		98
3) ethanol	2.700	45	161787	6253.19	ug/L		99
4) tertiary butyl alcohol	3.352	59	64094	266.07	ug/L		91
6) chlorodifluoromethane	1.824	51	58348	55.81	ug/L		95
7) dichlorodifluoromethane	1.811	85	70792	47.62	ug/L		97
8) chloromethane	1.972	50	70945	53.69	ug/L		99
9) vinyl chloride	2.068	62	83266	59.55	ug/L		98
10) bromomethane	2.331	96	44521	59.60	ug/L		100
11) chloroethane	2.415	64	50674	57.13	ug/L		96
12) trichlorofluoromethane	2.607	101	108772	58.95	ug/L		97
13) ethyl ether	2.796	74	38683	56.94	ug/L		89
14) acrolein	2.902	56	15905	58.46	ug/L		98
15) freon 113	2.979	151	53767	53.99	ug/L		96
16) 1,1-dichloroethene	2.986	96	57709	58.75	ug/L		93
17) acetone	2.995	58	39663	228.49	ug/L		91
18) acetonitrile	3.194	40	57074	531.47	ug/L		96
19) iodomethane	3.101	142	59789	50.86	ug/L		96
20) iso-butyl alcohol	4.683	43	42906	484.10	ug/L		95
21) carbon disulfide	3.169	76	139368	51.76	ug/L		97
22) methylene chloride	3.323	84	51978	49.01	ug/L		97
23) methyl acetate	3.207	74	13731	47.50	ug/L		97
24) methyl tert butyl ether	3.496	73	151866	50.03	ug/L		98
25) trans-1,2-dichloroethene	3.512	96	54025	52.38	ug/L		89
26) hexane	3.695	57	76006	51.29	ug/L		97
27) di-isopropyl ether	3.807	45	178214	56.08	ug/L		97
28) ethyl tert-butyl ether	4.058	59	168436	51.71	ug/L		97
29) 2-butanone	4.179	72	43529	215.78	ug/L		95
30) 1,1-dichloroethane	3.814	63	95648	55.91	ug/L		100
31) chloroprene	3.868	53	82774	55.41	ug/L		98
32) acrylonitrile	3.474	53	29916	60.74	ug/L		99
33) vinyl acetate	3.782	86	13257	48.53	ug/L	#	85
34) ethyl acetate	4.189	45	13301	53.31	ug/L	#	59
35) 2,2-dichloropropane	4.221	77	66319	41.31	ug/L		98
36) cis-1,2-dichloroethene	4.212	96	62701	55.91	ug/L		96
37) propionitrile	4.228	54	134331	574.90	ug/L		95
38) methyl acrylate	4.234	85	12750	52.28	ug/L	#	58
39) bromochloromethane	4.378	128	30021	49.76	ug/L		87
40) tetrahydrofuran	4.394	72	12743	46.70	ug/L		94
41) chloroform	4.433	83	93810	48.58	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212796.d
Acq On : 7 Aug 2021 2:14 am
Operator : edwardd
Sample : JD29301-8msd Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:27 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) methacrylonitrile	4.337	67	30887	52.58	ug/L		95
44) 1,1,1-trichloroethane	4.581	97	84899	50.56	ug/L		98
45) cyclohexane	4.642	84	78844	52.08	ug/L		91
46) 1,1-dichloropropene	4.686	75	76132	54.30	ug/L		98
47) carbon tetrachloride	4.696	117	77031	49.36	ug/L		97
48) isopropyl acetate	4.799	87	17149	49.61	ug/L		95
49) tert amyl alcohol	4.780	55	28905	327.20	ug/L	#	53
52) tert-amyl methyl ether	4.895	73	168733	48.43	ug/L		96
53) 2,2,4-trimethylpentane	4.898	57	153431	52.66	ug/L		97
54) n-butyl alcohol	5.165	56	178132	2663.49	ug/L		98
55) benzene	4.841	78	216337	51.58	ug/L		99
56) heptane	5.007	57	31307	51.71	ug/L		96
57) 1,2-dichloroethane	4.860	62	72764	48.71	ug/L		97
58) trichloroethene	5.312	95	57556	52.06	ug/L		89
59) ethyl acrylate	5.322	55	97269	54.85	ug/L		97
62) methyl methacrylate	5.502	100	21674	50.30	ug/L		95
63) 1,2-dichloropropane	5.511	63	55494	54.28	ug/L		95
64) methylcyclohexane	5.508	83	102410	54.97	ug/L		99
65) dibromomethane	5.585	93	35800	51.70	ug/L		93
66) bromodichloromethane	5.700	83	73148	49.94	ug/L		95
67) cis-1,3-dichloropropene	6.044	75	87910	50.30	ug/L		99
68) epichlorohydrin	5.951	57	23710	127.05	ug/L		99
69) 4-methyl-2-pentanone	6.137	58	144480	238.26	ug/L		98
70) 3-methyl-1-butanol	6.153	70	72353	1131.88	ug/L		98
73) toluene	6.329	92	143586	48.79	ug/L		99
74) trans-1,3-dichloropropene	6.500	75	79496	44.57	ug/L		94
75) ethyl methacrylate	6.512	69	90172	50.77	ug/L		95
76) 1,1,2-trichloroethane	6.673	83	44757	51.14	ug/L		98
77) 2-hexanone	6.833	58	149714	219.78	ug/L		91
78) tetrachloroethene	6.775	166	67315	45.76	ug/L		96
79) 1,3-dichloropropane	6.820	76	89469	49.00	ug/L		98
80) butyl acetate	6.913	56	49398	48.24	ug/L		96
81) dibromochloromethane	7.013	129	61392	44.81	ug/L		98
82) 1,2-dibromoethane	7.135	107	58419	46.50	ug/L		99
83) n-butyl ether	7.597	57	241346	50.96	ug/L		97
84) chlorobenzene	7.562	112	160532	47.31	ug/L		97
85) 1,1,1,2-tetrachloroethane	7.632	131	57103	45.24	ug/L		98
86) ethylbenzene	7.635	91	273004	49.16	ug/L		98
87) m,p-xylene	7.751	106	214015	96.54	ug/L		94
88) o-xylene	8.114	106	107134	48.96	ug/L		97
89) butyl acrylate	8.017	55	128114	53.05	ug/L		99
90) n-amyl acetate	8.226	70	50318	47.26	ug/L		96
91) styrene	8.126	104	182241	49.31	ug/L		100
92) bromoform	8.306	173	47136	42.91	ug/L		99
93) isopropylbenzene	8.447	105	275178	49.19	ug/L		98
94) cis-1,4-dichloro-2-butene	8.495	88	24718	41.88	ug/L		86
97) bromobenzene	8.771	156	71336	47.39	ug/L		95
98) 1,1,2,2-tetrachloroethane	8.730	83	82128	51.93	ug/L		97
99) trans-1,4-dichloro-2-b...	8.765	53	22085	48.93	ug/L		83
100) 1,2,3-trichloropropane	8.794	110	26165	47.46	ug/L		99
101) n-propylbenzene	8.842	91	306706	49.68	ug/L		96
102) 2-chlorotoluene	8.948	126	62639	46.95	ug/L		98
103) 4-chlorotoluene	9.060	126	65941	49.19	ug/L		94
104) 1,3,5-trimethylbenzene	9.015	105	211604	48.21	ug/L		99
105) tert-butylbenzene	9.323	119	189798	48.17	ug/L		98
106) 1,2,4-trimethylbenzene	9.381	105	214887	47.98	ug/L		97
107) sec-butylbenzene	9.542	105	269320	48.75	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212796.d
Acq On : 7 Aug 2021 2:14 am
Operator : edwardd
Sample : JD29301-8msd Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:27 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

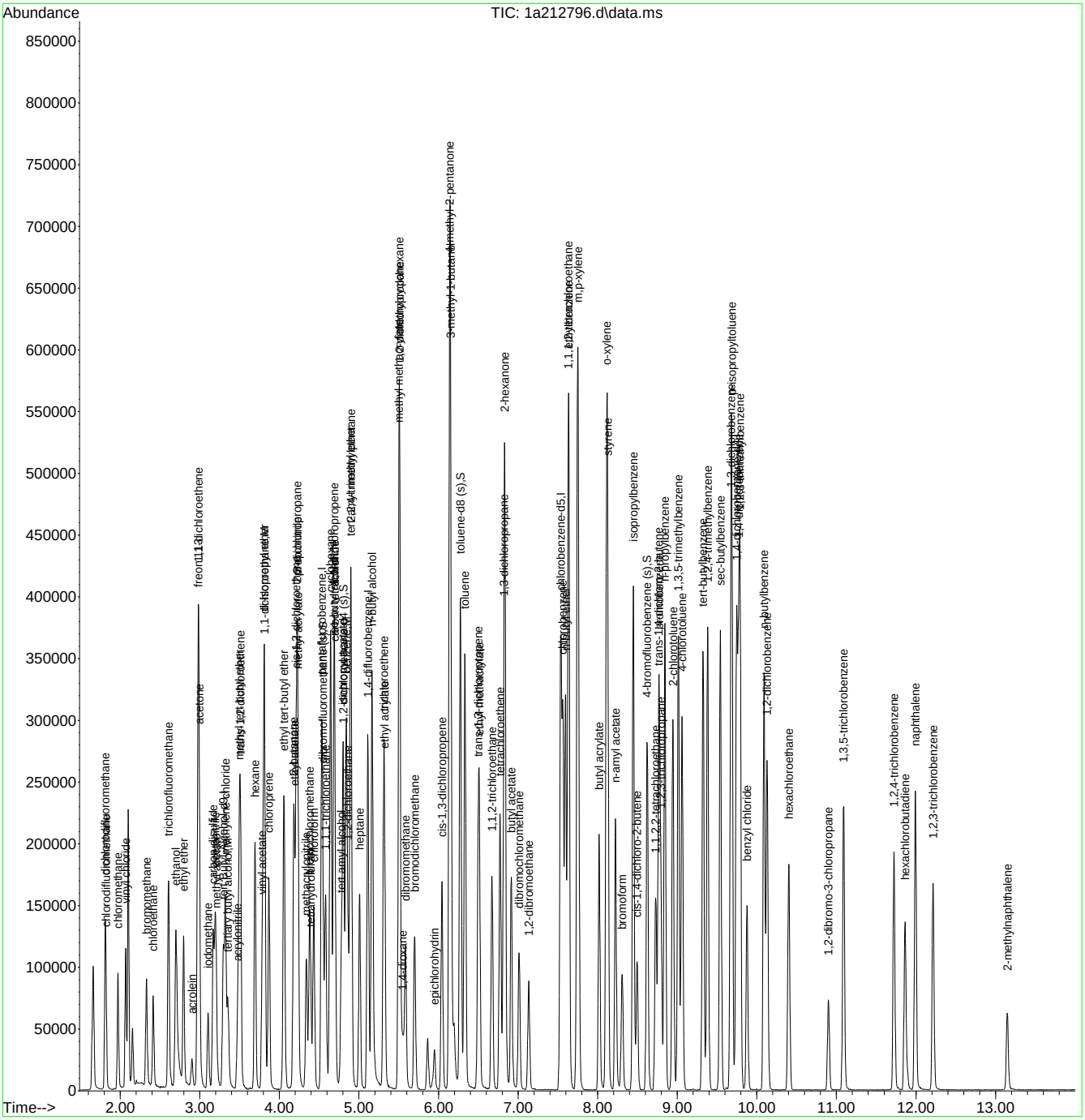
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3-dichlorobenzene	9.673	146	127585	46.72	ug/L	98
109) p-isopropyltoluene	9.686	119	232436	48.22	ug/L	98
110) 1,2,3-trimethylbenzene	9.789	105	221256	48.47	ug/L	99
111) 1,4-dichlorobenzene	9.773	146	128996	46.25	ug/L	97
112) 1,2-dichlorobenzene	10.129	146	121529	47.71	ug/L	98
113) n-butylbenzene	10.090	92	106902	51.24	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.899	157	23373	45.33	ug/L	92
115) 1,3,5-trichlorobenzene	11.088	180	82143	44.80	ug/L	96
116) 1,2,4-trichlorobenzene	11.724	180	67348	45.99	ug/L	99
117) hexachlorobutadiene	11.862	225	28322	43.73	ug/L	98
118) naphthalene	11.993	128	213151	50.13	ug/L	99
119) 1,2,3-trichlorobenzene	12.215	180	59904	47.48	ug/L	98
120) hexachloroethane	10.402	119	37241	44.86	ug/L	92
121) benzyl chloride	9.875	91	109696	33.57	ug/L	98
122) 2-methylnaphthalene	13.148	142	37421	21.23	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212796.d
Acq On : 7 Aug 2021 2:14 am
Operator : edwardd
Sample : JD29301-8msd Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:11:27 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166500.d
Acq On : 9 Aug 2021 6:33 pm
Operator : jons2
Sample : jd29339-1ms Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:03 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.924	65	185534	500.00	ug/L		0.02
5) pentafluorobenzene	10.451	168	151445	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	226801	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	218928	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	143704	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.471	113	78773	51.86	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.72%				
54) 1,2-dichloroethane-d4 (s)	10.921	65	86727	46.19	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.38%				
75) toluene-d8 (s)	13.155	98	263220	47.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.56%				
99) 4-bromofluorobenzene (s)	16.031	95	99680	43.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.66%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.055	59	136819	278.59	ug/L		93
4) 1,4-dioxane	12.108	88	51736	1792.84	ug/L		95
6) chlorodifluoromethane	4.127	51	193911	47.18	ug/L		99
7) dichlorodifluoromethane	4.117	85	183675	34.37	ug/L		97
8) chloromethane	4.530	50	205982	38.36	ug/L		97
9) vinyl chloride	4.791	62	192019	43.33	ug/L		99
10) 1,3-butadiene	4.838	54	121249	46.93	ug/L		93
11) bromomethane	5.497	94	154353	56.15	ug/L		96
12) chloroethane	5.686	64	87387	52.83	ug/L		92
13) trichlorofluoromethane	6.235	101	244896	56.86	ug/L		97
15) ethyl ether	6.680	74	43997	55.94	ug/L	#	76
16) acrolein	6.915	56	19450	65.26	ug/L		77
17) freon 113	7.176	151	161930	79.59	ug/L		94
18) 1,1-dichloroethene	7.145	96	103570	69.78	ug/L		89
19) acetone	7.140	58	46524	157.51	ug/L		98
20) acetonitrile	7.595	41	232018	526.87	ug/L		96
21) iodomethane	7.438	142	219584	63.20	ug/L		97
22) carbon disulfide	7.605	76	378558	57.93	ug/L		98
23) methylene chloride	7.966	84	118739	64.80	ug/L		90
24) methyl acetate	7.689	43	85854	47.57	ug/L		90
25) methyl tert butyl ether	8.390	73	367688	51.38	ug/L		99
26) trans-1,2-dichloroethene	8.426	96	89389	57.66	ug/L		99
27) hexane	8.834	56	62400	52.63	ug/L		92
28) di-isopropyl ether	9.070	45	360545	54.06	ug/L		96
29) 2-butanone	9.765	72	57274	214.95	ug/L	#	81
30) 1,1-dichloroethane	9.054	63	163774	60.14	ug/L		97
31) chloroprene	9.180	53	123560	55.43	ug/L		92
32) acrylonitrile	8.275	53	41550	54.64	ug/L		92
33) vinyl acetate	9.002	86	17965	72.01	ug/L	#	82
34) ethyl tert-butyl ether	9.582	59	384633	55.75	ug/L		98
35) ethyl acetate	9.807	45	17212	52.75	ug/L	#	76
36) 2,2-dichloropropane	9.886	77	197789	59.55	ug/L		93
37) cis-1,2-dichloroethene	9.844	96	242357	139.87	ug/L		100
38) propionitrile	9.828	54	195360	577.36	ug/L		97
39) methyl acrylate	9.896	85	16120	54.15	ug/L	#	90
40) methacrylonitrile	10.058	67	42562	53.77	ug/L		91
41) bromochloromethane	10.168	128	58113	63.60	ug/L		94
42) tetrahydrofuran	10.194	42	41928	52.30	ug/L		93
43) chloroform	10.267	83	172500	55.55	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166500.d
Acq On : 9 Aug 2021 6:33 pm
Operator : jons2
Sample : jd29339-1ms Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:03 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tert-Butyl Formate	10.304	59	118354	94.70	ug/L		97
46) 1,1,1-trichloroethane	10.550	97	232151	70.31	ug/L		96
47) cyclohexane	10.681	84	173517	56.71	ug/L		92
48) isobutyl alcohol	10.900	43	245852	536.18	ug/L		94
49) 1,1-dichloropropene	10.733	75	116972	58.82	ug/L		94
50) carbon tetrachloride	10.770	117	188093	67.60	ug/L		94
51) tert-amyl alcohol	10.864	73	63871	261.10	ug/L		97
52) isopropyl acetate	10.900	87	24511	60.08	ug/L	#	82
55) n-butyl alcohol	11.476	56	293241	2951.30	ug/L		96
56) 2,2,4-trimethylpentane	11.110	57	430404	60.31	ug/L		99
57) benzene	10.989	78	342387	56.61	ug/L		99
58) tert-amyl methyl ether	11.089	73	389983	58.00	ug/L		100
59) heptane	11.282	57	61084	52.76	ug/L		94
60) 1,2-dichloroethane	11.015	62	134591	55.58	ug/L		99
61) ethyl acrylate	11.742	55	132414	53.65	ug/L		92
62) trichloroethene	11.763	95	751455	465.04	ug/L		96
63) 2-chloroethyl vinyl ether	12.590	63	90046	126.49	ug/L		98
64) methyl methacrylate	12.025	100	25230	50.76	ug/L	#	68
65) methylcyclohexane	12.088	83	206376	57.30	ug/L		92
66) 1,2-dichloropropane	12.061	63	95169	56.91	ug/L		98
67) dibromomethane	12.171	93	68448	62.24	ug/L		92
68) bromodichloromethane	12.339	83	140188	61.27	ug/L		99
69) 2-nitropropane	12.522	41	33794	60.69	ug/L		88
70) epichlorohydrin	12.668	57	76491	320.13	ug/L		96
71) cis-1,3-dichloropropene	12.820	75	151423	59.18	ug/L		93
72) 4-methyl-2-pentanone	12.914	58	217774	233.52	ug/L		100
73) isoamyl alcohol	12.919	70	118207	1309.46	ug/L		98
76) toluene	13.233	92	214767	58.17	ug/L		97
77) ethyl methacrylate	13.416	69	128846	54.12	ug/L		93
78) trans-1,3-dichloropropene	13.427	75	145664	60.79	ug/L		91
79) 1,1,2-trichloroethane	13.662	83	78634	60.20	ug/L		98
80) tetrachloroethene	13.834	164	96685	66.53	ug/L		98
81) 2-hexanone	13.824	58	196949	214.42	ug/L		99
82) 1,3-dichloropropane	13.855	76	141613	58.34	ug/L		81
83) butyl acetate	13.923	56	76883	56.58	ug/L		96
84) dibromochloromethane	14.127	129	122527	64.84	ug/L		97
85) 1,2-dibromoethane	14.295	107	100525	54.96	ug/L		97
86) n-butyl ether	14.771	57	389402	54.47	ug/L		98
87) chlorobenzene	14.813	112	257991	61.08	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.881	131	138642	66.05	ug/L		98
89) ethylbenzene	14.875	91	412219	56.23	ug/L		99
90) m,p-xylene	15.011	106	331676	118.43	ug/L		98
91) o-xylene	15.435	91	384242	58.32	ug/L		97
92) styrene	15.451	104	278699	59.67	ug/L		92
93) butyl acrylate	15.247	55	206253	52.43	ug/L		96
94) n-amyl acetate	15.466	70	85382	64.12	ug/L		97
95) isopropylbenzene	15.812	105	523413	60.20	ug/L		96
96) bromoform	15.702	173	107545	71.51	ug/L		97
97) cis-1,4-dichloro-2-butene	15.838	88	57100	60.27	ug/L		93
100) 1,1,2,2-tetrachloroethane	16.099	83	172119	58.74	ug/L		95
101) trans-1,4-dichloro-2-b...	16.131	53	42230	51.86	ug/L		93
102) 1,2,3-trichloropropane	16.193	110	45361	57.12	ug/L		98
103) bromobenzene	16.230	156	132068	58.20	ug/L		93
104) n-propylbenzene	16.256	91	548903	57.21	ug/L		97
105) 2-chlorotoluene	16.403	126	127085	59.44	ug/L	#	86
106) 4-chlorotoluene	16.518	91	325808	54.89	ug/L		99
107) 1,3,5-trimethylbenzene	16.423	105	448812	56.55	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166500.d
Acq On : 9 Aug 2021 6:33 pm
Operator : jons2
Sample : jd29339-1ms Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:03 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

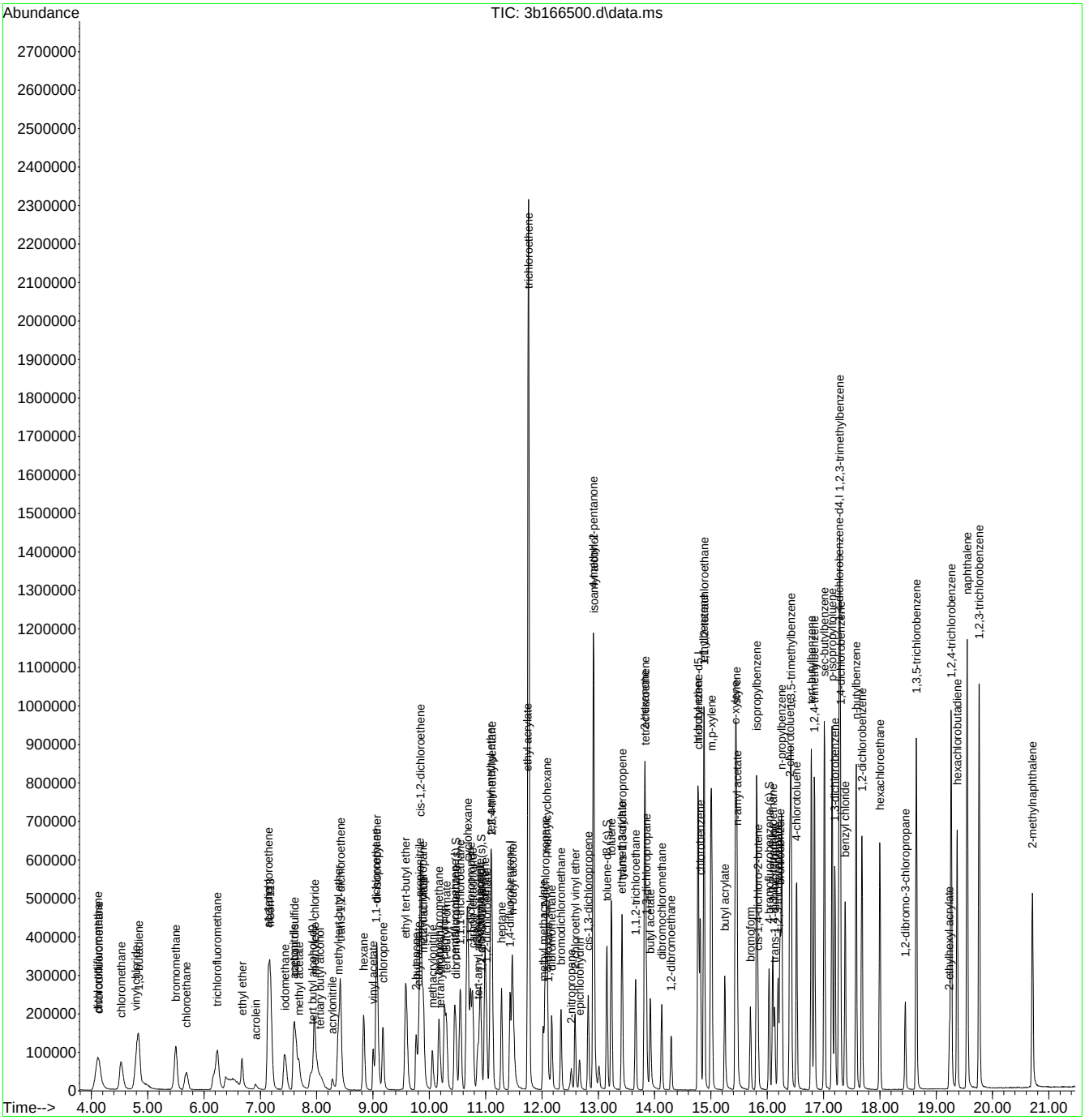
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	16.784	119	428622	59.69	ug/L	99
109) 1,2,4-trimethylbenzene	16.837	105	452388	57.93	ug/L	99
110) sec-butylbenzene	17.014	105	656049	59.20	ug/L	98
111) p-isopropyltoluene	17.150	119	545344	57.63	ug/L	98
112) 1,2,3-trimethylbenzene	17.286	105	540113	57.26	ug/L	98
113) 1,3-dichlorobenzene	17.198	146	261855	59.17	ug/L	97
114) 1,4-dichlorobenzene	17.302	146	266206	57.32	ug/L	99
115) 1,2-dichlorobenzene	17.684	146	301157	60.11	ug/L	95
116) benzyl chloride	17.386	91	368489	70.33	ug/L	96
117) n-butylbenzene	17.579	92	260459	57.96	ug/L	98
118) hexachloroethane	18.003	201	122673	62.49	ug/L	97
119) 1,2-dibromo-3-chloropr...	18.453	157	70110	57.11	ug/L	97
120) 1,3,5-trichlorobenzene	18.646	180	311482	61.35	ug/L	98
121) 2-ethylhexyl acrylate	19.232	70	37512	10.69	ug/L	89
122) 1,2,4-trichlorobenzene	19.269	180	340720	59.25	ug/L	98
123) hexachlorobutadiene	19.373	225	145570	59.66	ug/L	98
124) naphthalene	19.551	128	976727	57.74	ug/L	98
125) 1,2,3-trichlorobenzene	19.766	180	373543	59.43	ug/L	98
126) 2-methylnaphthalene	20.707	142	294057	29.15	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166500.d
Acq On : 9 Aug 2021 6:33 pm
Operator : jons2
Sample : jd29339-1ms Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:03 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166501.d
Acq On : 9 Aug 2021 7:03 pm
Operator : jons2
Sample : jd29339-1msd Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:32 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.930	65	206103	500.00	ug/L		0.03
5) pentafluorobenzene	10.451	168	167031	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.439	114	252211	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	238497	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	151109	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.471	113	86504	51.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.26%				
54) 1,2-dichloroethane-d4 (s)	10.921	65	94877	45.44	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.88%				
75) toluene-d8 (s)	13.155	98	288517	48.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.14%				
99) 4-bromofluorobenzene (s)	16.031	95	107493	44.95	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.90%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.045	59	151363	277.44	ug/L		96
4) 1,4-dioxane	12.114	88	58673	1830.32	ug/L		89
6) chlorodifluoromethane	4.132	51	232606	51.32	ug/L		99
7) dichlorodifluoromethane	4.132	85	221604	37.59	ug/L		92
8) chloromethane	4.540	50	251928	42.54	ug/L		99
9) vinyl chloride	4.791	62	235395	48.16	ug/L		98
10) 1,3-butadiene	4.839	54	148975	52.29	ug/L		90
11) bromomethane	5.503	94	178441	58.86	ug/L		96
12) chloroethane	5.696	64	101492	55.63	ug/L		95
13) trichlorofluoromethane	6.245	101	270213	56.88	ug/L		98
15) ethyl ether	6.680	74	47805	55.11	ug/L		92
16) acrolein	6.910	56	22592	68.73	ug/L		90
17) freon 113	7.182	151	177408	79.06	ug/L		95
18) 1,1-dichloroethene	7.145	96	116247	71.01	ug/L		91
19) acetone	7.135	58	54101	166.07	ug/L	#	71
20) acetonitrile	7.590	41	255368	525.78	ug/L		98
21) iodomethane	7.438	142	248399	64.83	ug/L		94
22) carbon disulfide	7.611	76	422753	58.66	ug/L		97
23) methylene chloride	7.966	84	130193	64.43	ug/L		99
24) methyl acetate	7.689	43	99940	50.21	ug/L		92
25) methyl tert butyl ether	8.406	73	398662	50.51	ug/L		95
26) trans-1,2-dichloroethene	8.426	96	99441	58.16	ug/L		98
27) hexane	8.840	56	69678	53.29	ug/L		97
28) di-isopropyl ether	9.075	45	401028	54.52	ug/L		97
29) 2-butanone	9.765	72	62614	213.07	ug/L	#	88
30) 1,1-dichloroethane	9.059	63	184736	61.51	ug/L		98
31) chloroprene	9.180	53	138503	56.33	ug/L		92
32) acrylonitrile	8.275	53	47445	56.57	ug/L		92
33) vinyl acetate	9.002	86	19437	70.64	ug/L	#	73
34) ethyl tert-butyl ether	9.588	59	428202	56.27	ug/L		99
35) ethyl acetate	9.812	45	18704	51.97	ug/L	#	70
36) 2,2-dichloropropane	9.891	77	212278	57.95	ug/L		93
37) cis-1,2-dichloroethene	9.849	96	268057	140.27	ug/L		98
38) propionitrile	9.828	54	214932	575.93	ug/L		97
39) methyl acrylate	9.901	85	19011	57.74	ug/L	#	58
40) methacrylonitrile	10.058	67	47819	54.77	ug/L		94
41) bromochloromethane	10.173	128	64145	63.66	ug/L	#	83
42) tetrahydrofuran	10.194	42	44842	50.72	ug/L		94
43) chloroform	10.268	83	192919	56.33	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166501.d
Acq On : 9 Aug 2021 7:03 pm
Operator : jons2
Sample : jd29339-1msd Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:32 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tert-Butyl Formate	10.304	59	132213	95.92	ug/L		93
46) 1,1,1-trichloroethane	10.550	97	253253	69.54	ug/L		97
47) cyclohexane	10.681	84	188704	55.92	ug/L		95
48) isobutyl alcohol	10.900	43	273332	540.48	ug/L		98
49) 1,1-dichloropropene	10.733	75	130564	59.52	ug/L		98
50) carbon tetrachloride	10.770	117	206058	67.15	ug/L		97
51) tert-amyl alcohol	10.864	73	71792	266.09	ug/L		96
52) isopropyl acetate	10.900	87	27675	61.50	ug/L	#	83
55) n-butyl alcohol	11.476	56	322834	2921.79	ug/L		94
56) 2,2,4-trimethylpentane	11.110	57	477290	60.15	ug/L		97
57) benzene	10.989	78	374645	55.71	ug/L		97
58) tert-amyl methyl ether	11.089	73	428073	57.25	ug/L		100
59) heptane	11.282	57	68284	53.04	ug/L		94
60) 1,2-dichloroethane	11.015	62	149247	55.42	ug/L		95
61) ethyl acrylate	11.748	55	141107	51.41	ug/L		86
62) trichloroethene	11.763	95	823788	458.44	ug/L		94
63) 2-chloroethyl vinyl ether	12.590	63	69848	88.23	ug/L		98
64) methyl methacrylate	12.030	100	28185	51.00	ug/L	#	62
65) methylcyclohexane	12.088	83	226201	56.47	ug/L		97
66) 1,2-dichloropropane	12.056	63	105947	56.97	ug/L		98
67) dibromomethane	12.177	93	75499	61.73	ug/L		96
68) bromodichloromethane	12.339	83	154090	60.56	ug/L		99
69) 2-nitropropane	12.522	41	37034	59.81	ug/L		98
70) epichlorohydrin	12.663	57	78746	296.36	ug/L		98
71) cis-1,3-dichloropropene	12.825	75	168540	59.23	ug/L		90
72) 4-methyl-2-pentanone	12.914	58	247022	238.19	ug/L		99
73) isoamyl alcohol	12.919	70	134671	1341.54	ug/L		95
76) toluene	13.233	92	235853	58.64	ug/L		96
77) ethyl methacrylate	13.416	69	140865	54.31	ug/L		95
78) trans-1,3-dichloropropene	13.427	75	158488	60.72	ug/L		88
79) 1,1,2-trichloroethane	13.662	83	84330	59.26	ug/L		94
80) tetrachloroethene	13.835	164	107447	67.87	ug/L		97
81) 2-hexanone	13.824	58	217261	217.12	ug/L		99
82) 1,3-dichloropropane	13.850	76	154705	58.50	ug/L		97
83) butyl acetate	13.923	56	85323	57.64	ug/L		98
84) dibromochloromethane	14.127	129	131471	63.87	ug/L		96
85) 1,2-dibromoethane	14.295	107	114058	57.24	ug/L		99
86) n-butyl ether	14.771	57	421406	54.11	ug/L		98
87) chlorobenzene	14.813	112	282006	61.29	ug/L		95
88) 1,1,1,2-tetrachloroethane	14.881	131	152270	66.59	ug/L		98
89) ethylbenzene	14.875	91	447833	56.07	ug/L		98
90) m,p-xylene	15.006	106	370097	121.31	ug/L		98
91) o-xylene	15.435	91	423825	59.05	ug/L		93
92) styrene	15.451	104	303383	59.63	ug/L		94
93) butyl acrylate	15.247	55	222772	51.98	ug/L		98
94) n-amyl acetate	15.466	70	91968	63.40	ug/L		90
95) isopropylbenzene	15.812	105	570970	60.28	ug/L		96
96) bromoform	15.702	173	111695	68.18	ug/L		98
97) cis-1,4-dichloro-2-butene	15.838	88	60576	58.70	ug/L		95
100) 1,1,2,2-tetrachloroethane	16.099	83	186109	60.40	ug/L		99
101) trans-1,4-dichloro-2-b...	16.131	53	44872	52.41	ug/L		95
102) 1,2,3-trichloropropane	16.193	110	49601	59.40	ug/L		90
103) bromobenzene	16.230	156	143999	60.35	ug/L		91
104) n-propylbenzene	16.256	91	584685	57.96	ug/L		98
105) 2-chlorotoluene	16.403	126	135398	60.23	ug/L		92
106) 4-chlorotoluene	16.523	91	346905	55.58	ug/L		96
107) 1,3,5-trimethylbenzene	16.424	105	478666	57.36	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166501.d
Acq On : 9 Aug 2021 7:03 pm
Operator : jons2
Sample : jd29339-1msd Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:32 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

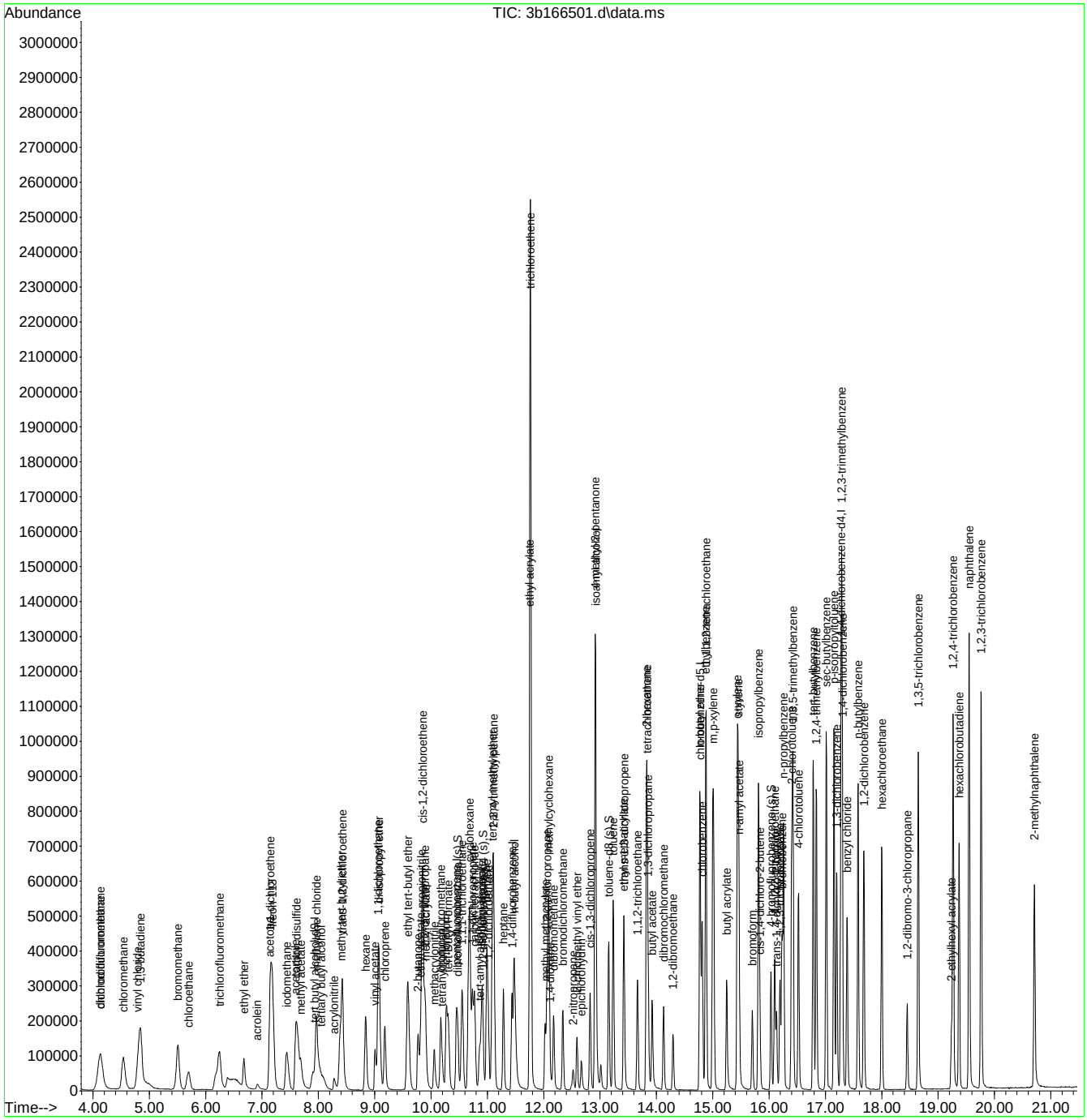
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	16.784	119	467799	61.96	ug/L	99
109) 1,2,4-trimethylbenzene	16.837	105	480125	58.47	ug/L	97
110) sec-butylbenzene	17.015	105	714529	61.31	ug/L	99
111) p-isopropyltoluene	17.151	119	591283	59.42	ug/L	98
112) 1,2,3-trimethylbenzene	17.286	105	580834	58.55	ug/L	94
113) 1,3-dichlorobenzene	17.198	146	279347	60.03	ug/L	98
114) 1,4-dichlorobenzene	17.302	146	280310	57.39	ug/L	99
115) 1,2-dichlorobenzene	17.684	146	318172	60.39	ug/L	96
116) benzyl chloride	17.386	91	375224	68.11	ug/L	98
117) n-butylbenzene	17.579	92	280276	59.32	ug/L	98
118) hexachloroethane	18.003	201	130106	63.01	ug/L	95
119) 1,2-dibromo-3-chloropr...	18.453	157	76976	59.63	ug/L	99
120) 1,3,5-trichlorobenzene	18.646	180	332617	62.30	ug/L	99
121) 2-ethylhexyl acrylate	19.237	70	41424	11.22	ug/L	88
122) 1,2,4-trichlorobenzene	19.264	180	370048	61.20	ug/L	99
123) hexachlorobutadiene	19.373	225	158392	61.73	ug/L	95
124) naphthalene	19.551	128	1066897	59.98	ug/L	98
125) 1,2,3-trichlorobenzene	19.766	180	405370	61.33	ug/L	97
126) 2-methylnaphthalene	20.707	142	342213	32.26	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166501.d
Acq On : 9 Aug 2021 7:03 pm
Operator : jons2
Sample : jd29339-1msd Inst : MS3B
Misc : MS52735,V3B7507,5,,,,20
ALS Vial : 17 Sample Multiplier: 1

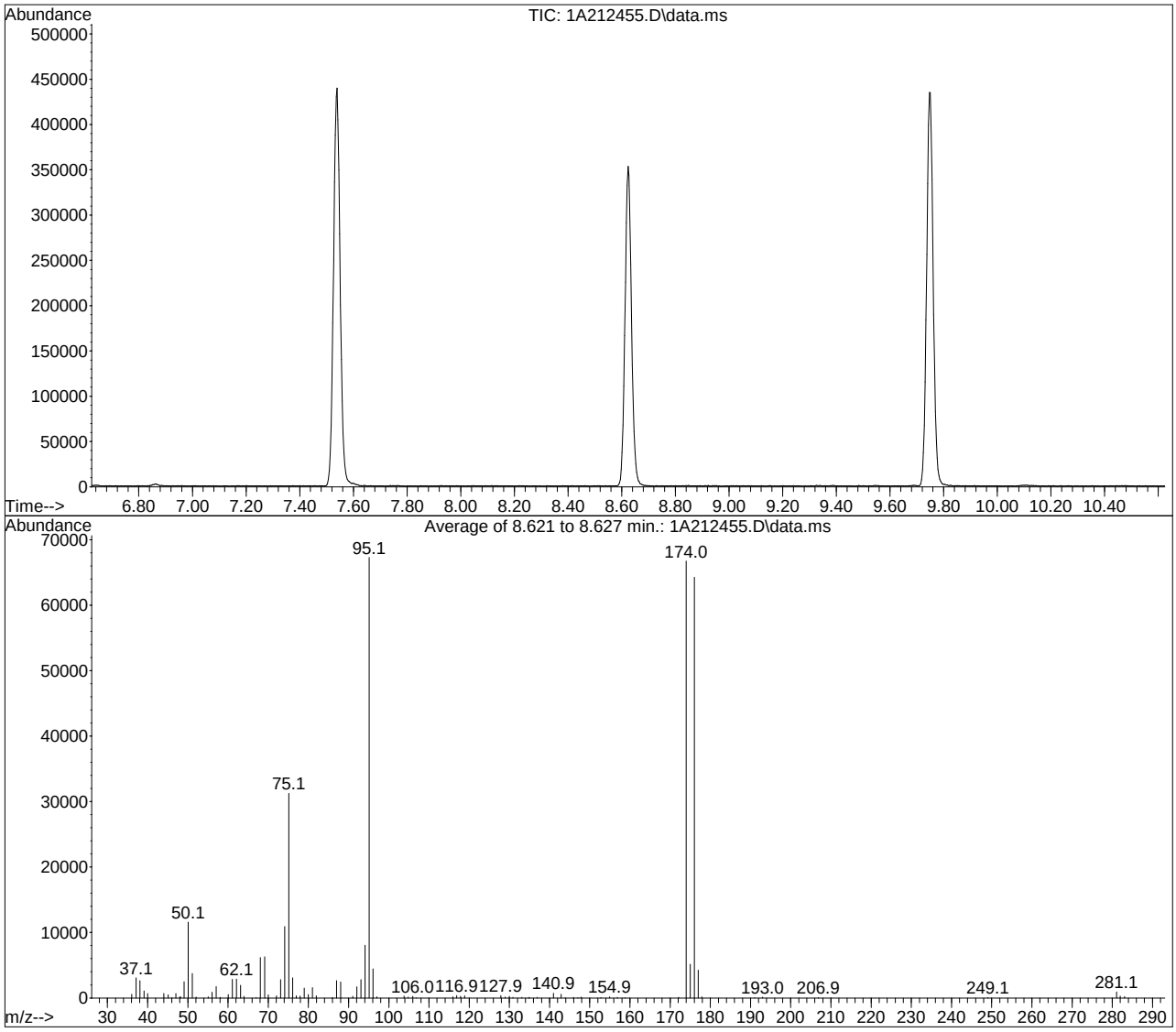
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:22:32 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\msdchem\1\data\V1A9178\1A212455.D Vial: 1
Acq On : 29 Jul 2021 9:41 am Operator: EddieH
Sample : bfb Inst : MSDTEST1A
Misc : MS52311,V1A9178,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A9178.M (RTE Integrator)
Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um



Spectrum Information: Average of 8.621 to 8.627 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	11591	PASS
75	95	30	60	46.5	31277	PASS
95	95	100	100	100.0	67283	PASS
96	95	5	9	6.6	4471	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.2	66731	PASS
175	174	5	9	7.7	5169	PASS
176	174	95	101	96.3	64291	PASS
177	176	5	9	6.6	4246	PASS

1A212455.D M1A9178.M Fri Jul 30 10:35:47 2021 1A

Average of 8.621 to 8.627 min.: 1A212455.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	569	49.05	2497.33	63.10	1936.33	76.95	347.667
37.10	3076.33	50.10	11590.7	63.95	250.333	77.95	312.333
38.10	2646	51.10	3742.33	67.00	79	78.95	1508.67
39.10	1062	52.05	146.667	68.05	6180	79.95	521
40.00	697.667	55.05	190.333	69.10	6298.33	81.00	1578.33
44.05	684.667	56.05	874.333	70.00	505	81.95	329.667
45.10	506	57.05	1734	72.05	341	86.00	74.6667
46.10	37.6667	58.05	79.6667	73.05	2822.33	87.00	2654.33
47.05	695	60.05	531.333	74.10	10903	88.00	2463.33
48.00	130.333	61.05	2849.67	75.10	31277.3	91.00	267.667
48.15	233.333	62.10	2892.67	76.10	3081	92.05	1702

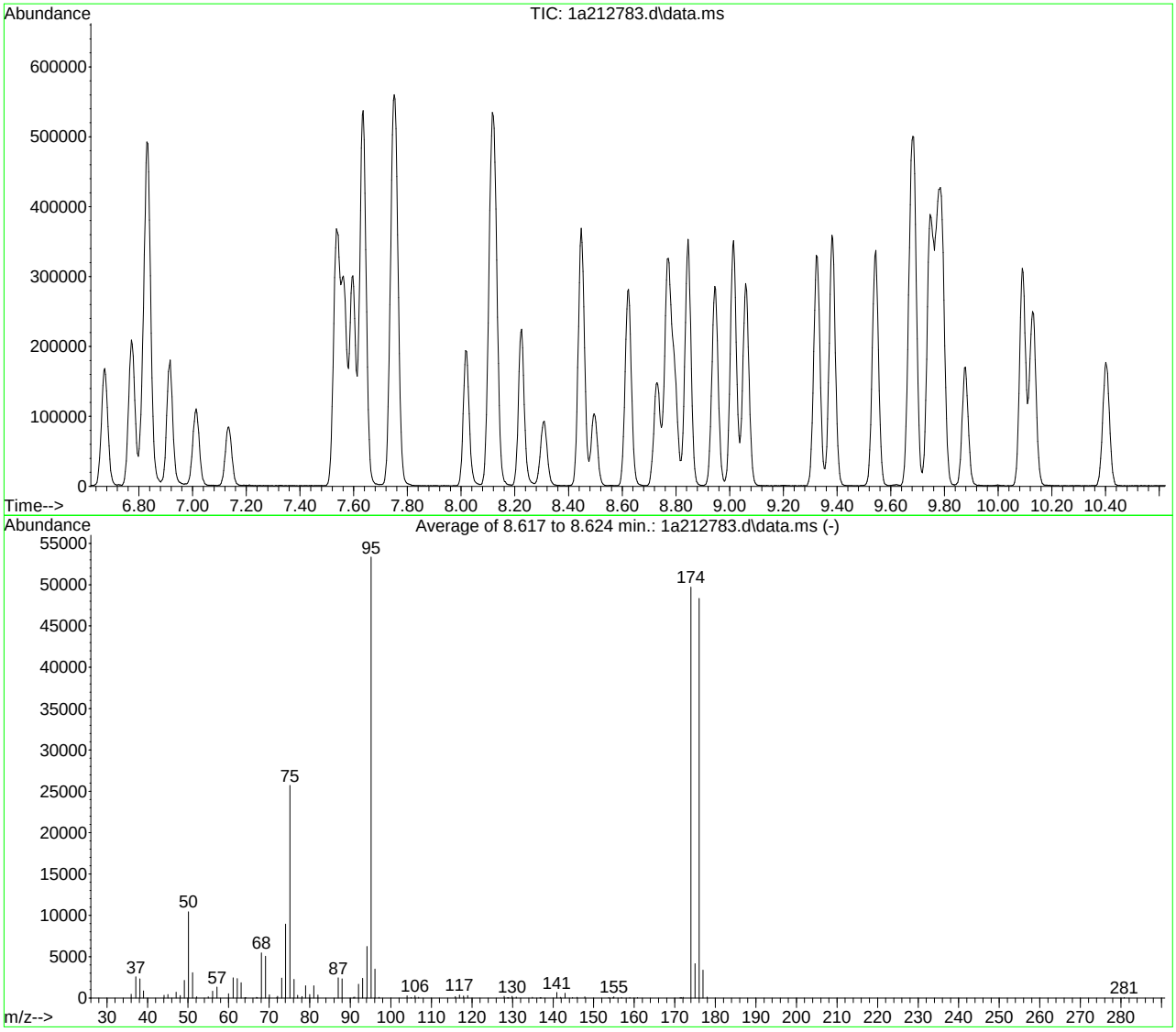
Average of 8.621 to 8.627 min.: 1A212455.D\data.ms
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	2812.67	117.85	266	142.85	567.667	175.00	5169.33
94.10	8059.33	118.90	324.667	143.90	37.3333	176.00	64290.7
95.10	67282.7	127.90	377.667	145.95	104.333	176.95	4246
96.10	4470.67	128.95	132	147.00	44	177.85	172
97.05	164.667	129.95	269.667	147.85	156.667	191.00	37.6667
103.80	289.667	130.85	86	152.80	44	193.00	150.333
104.85	131.667	133.10	95.3333	154.95	173.667	206.90	50
105.95	248	134.80	41.3333	156.85	81.3333	249.10	62
106.80	34.6667	134.95	108	158.80	35.6667	281.05	931
115.95	181.667	136.90	88	172.15	93.3333	282.00	310.333
116.90	390.333	140.95	745	174.00	66730.7	283.05	208.333

SW-846 Method 8260

Data File : C:\msdchem\1\data\kr...21\v1a9190\1a212783.d Vial: 29
Acq On : 6 Aug 2021 8:48 pm Operator: edwardd
Sample : bfb Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A9178.M (RTE Integrator)
Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um



AutoFind: Scans 2223, 2224, 2225; Background Corrected with Scan 2210

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	10443	PASS
75	95	30	60	48.2	25725	PASS
95	95	100	100	100.0	53331	PASS
96	95	5	9	6.6	3497	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.2	49704	PASS
175	174	5	9	8.3	4148	PASS
176	174	95	101	97.2	48336	PASS
177	176	5	9	7.0	3364	PASS

1a212783.d M1A9178.M Mon Aug 09 17:59:15 2021

Average of 8.617 to 8.624 min.: 1a212783.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	459	52.10	154	67.10	59	78.10	167
37.10	2557	54.95	133	68.10	5456	79.00	1467
38.10	2316	56.05	826	69.10	5061	80.00	426
39.00	849	57.10	1335	70.05	382	81.00	1483
44.05	337	60.00	511	71.90	75	82.00	352
45.00	429	61.10	2448	72.05	213	87.00	2429
47.05	691	62.10	2336	73.10	2398	88.00	2314
48.05	305	63.05	1857	74.05	8930	90.80	81
49.10	2131	64.00	50	75.10	25725	91.05	120
50.10	10443	64.20	50	76.10	2258	92.00	1649
51.10	3055	66.90	70	77.00	328	93.05	2369

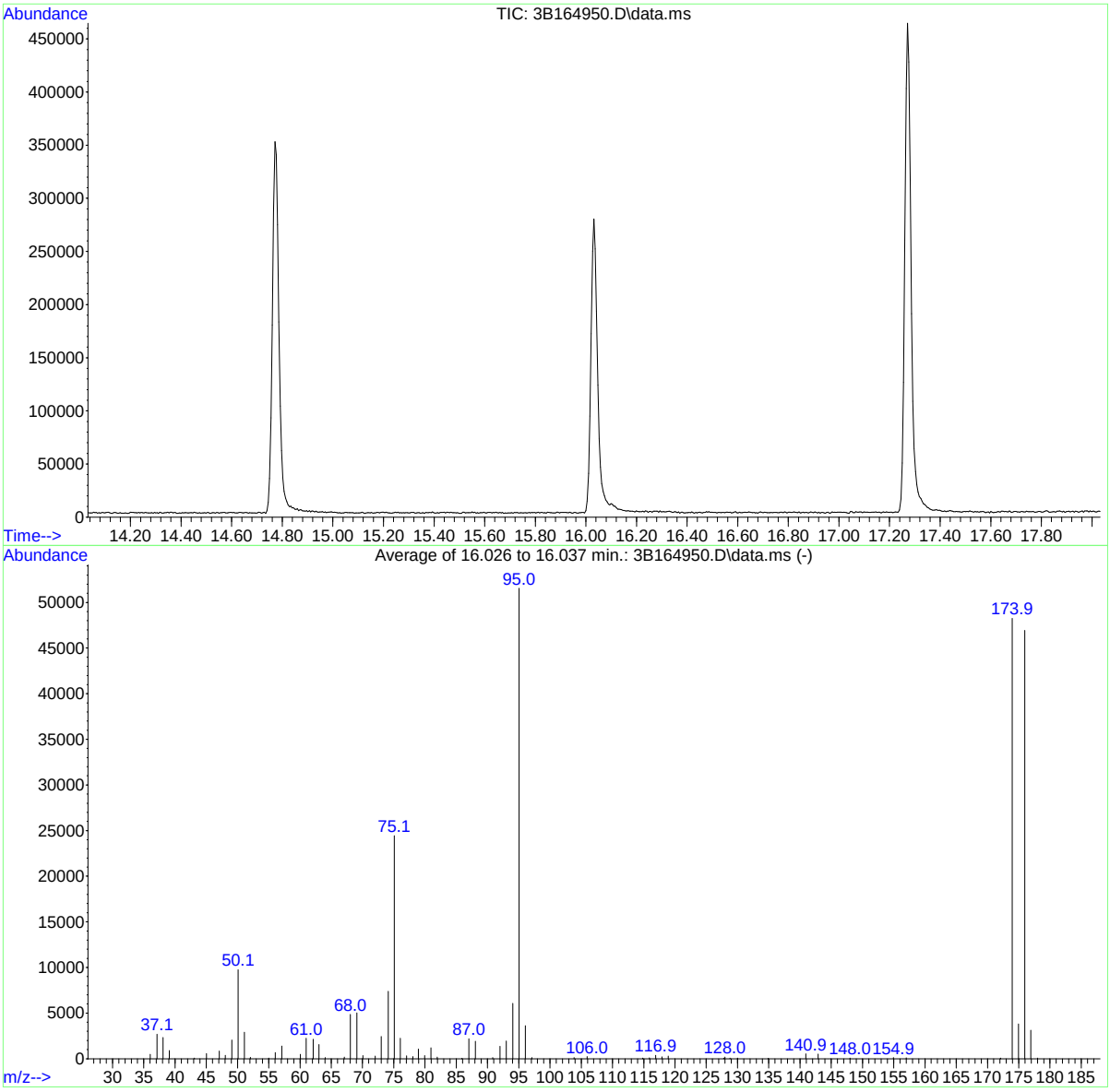
Average of 8.617 to 8.624 min.: 1a212783.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.10	6232	118.95	295	142.95	587	171.50	37
95.10	53331	127.95	207	144.80	40	171.70	37
96.10	3497	128.80	44	145.90	85	172.05	90
97.10	78	129.00	56	147.85	127	174.00	49704
104.00	250	129.90	209	153.70	36	175.00	4148
105.00	48	130.90	97	154.80	57	176.00	48336
105.95	281	134.90	95	154.95	131	176.95	3364
106.85	79	136.80	49	156.90	57	177.95	120
115.90	170	137.00	52	158.90	35	280.80	45
116.90	367	140.90	655	160.80	58		
117.90	237	141.80	71	171.30	37		

SW-846 Method 8260

Data File : C:\msdchem\1\data\V3B7429\3B164950.D Vial: 3
Acq On : 22 Apr 2021 5:46 pm Operator: PrashanS
Sample : BFB Inst : MS3B
Misc : MS49876,V3B7429,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7429.M (RTE Integrator)
Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2341, 2342, 2343; Background Corrected with Scan 2333

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.9	9739	PASS
75	95	30	60	47.4	24437	PASS
95	95	100	100	100.0	51552	PASS
96	95	5	9	7.0	3625	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	93.6	48269	PASS
175	174	5	9	7.9	3815	PASS
176	174	95	101	97.3	46952	PASS
177	176	5	9	6.6	3111	PASS

3B164950.D M3B7429.M Fri Apr 23 17:29:47 2021

Average of 16.026 to 16.037 min.: 3B164950.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	492	52.05	151	69.10	5008	80.95	1188
37.10	2685	55.00	70	70.05	342	81.95	172
38.10	2333	56.05	689	72.05	282	85.90	54
39.10	904	57.10	1397	73.00	2430	87.00	2200
43.10	56	60.05	470	74.10	7397	88.05	1923
45.05	568	61.00	2231	75.10	24437	90.85	139
47.10	837	62.10	2126	76.05	2245	92.00	1355
48.05	374	63.05	1544	77.05	315	93.00	1953
49.10	2047	64.05	120	78.05	245	94.05	6073
50.10	9739	67.10	184	78.95	1070	95.05	51552
51.10	2897	68.05	4859	79.95	357	96.05	3625

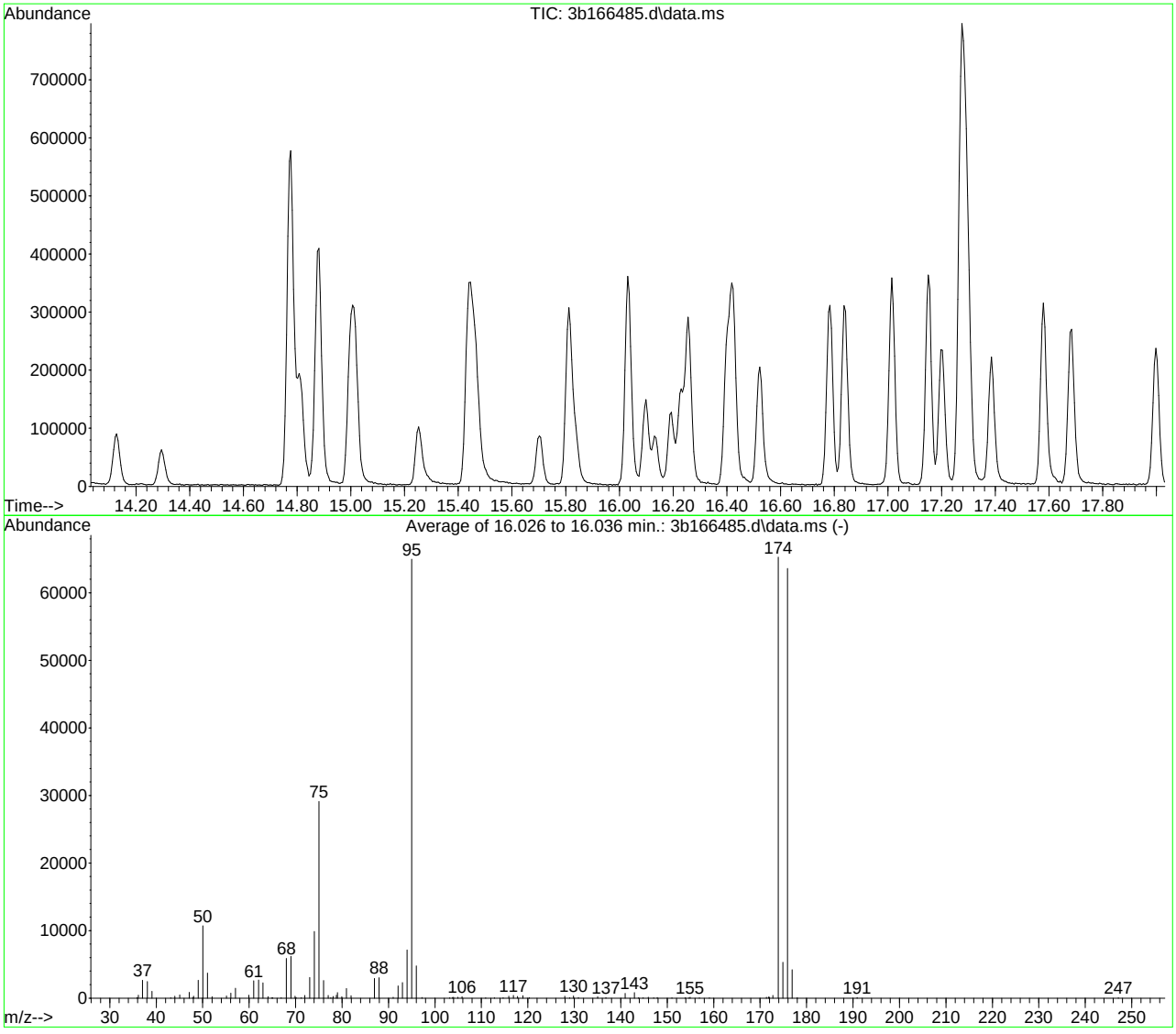
Average of 16.026 to 16.037 min.: 3B164950.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.10	120	130.00	68	176.95	3111		
103.85	115	134.90	50	178.00	72		
105.95	228	140.95	546				
114.80	64	142.90	521				
115.90	101	148.00	78				
116.90	361	154.95	127				
117.90	209	157.00	84				
118.90	282	172.10	71				
127.80	63	173.95	48269				
128.00	175	174.95	3815				
128.80	75	175.95	46952				

SW-846 Method 8260

Data File : C:\msdchem\1\data\kr...21\v3b7507\3b166485.d Vial: 8
Acq On : 9 Aug 2021 9:16 am Operator: jons2
Sample : bfb Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B7429.M (RTE Integrator)
Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2341, 2342, 2343; Background Corrected with Scan 2332

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.5	10721	PASS
75	95	30	60	44.8	29115	PASS
95	95	100	100	100.0	64963	PASS
96	95	5	9	7.3	4773	PASS
173	174	0.00	2	0.6	396	PASS
174	95	50	150	100.5	65269	PASS
175	174	5	9	8.1	5312	PASS
176	174	95	101	97.5	63619	PASS
177	176	5	9	6.6	4217	PASS

3b166485.d M3B7429.M Tue Aug 10 11:57:20 2021

Average of 16.026 to 16.036 min.: 3b166485.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	84	49.05	2652	64.10	209	74.05	9862
36.15	424	50.05	10721	64.90	65	75.05	29115
37.05	2644	51.05	3694	65.10	53	76.05	2589
38.10	2446	52.05	196	66.90	77	77.00	406
39.10	1009	55.10	312	68.00	5872	77.60	71
43.10	61	56.05	760	69.00	6196	78.05	266
44.00	307	57.05	1480	69.90	285	78.80	421
45.05	468	59.95	452	70.10	81	79.00	836
47.10	846	61.00	2562	71.20	58	79.95	201
47.90	113	62.05	2680	72.00	408	80.95	1412
48.05	277	63.00	2249	73.05	3060	81.95	358

Average of 16.026 to 16.036 min.: 3b166485.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.95	2892	104.00	121	127.95	272	147.10	63
87.95	3034	104.95	148	129.00	61	147.85	113
91.00	130	105.85	218	129.85	310	151.00	50
92.05	1809	110.90	60	130.90	93	153.90	69
93.00	2296	112.80	79	135.05	213	154.70	54
94.00	7136	114.70	73	136.80	91	154.95	135
95.00	64963	115.90	268	140.95	713	156.90	60
96.00	4773	116.90	388	142.95	839	159.10	67
97.20	91	117.80	264	143.80	62	171.35	129
103.20	54	118.95	363	144.80	73	171.80	183
103.80	102	120.30	70	145.90	124	172.00	136

Average of 16.026 to 16.036 min.: 3b166485.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
172.75	396						
173.90	65269						
174.90	5312						
175.90	63619						
176.90	4217						
178.00	51						
190.90	115						
247.10	70						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212457.D
Acq On : 29 Jul 2021 11:46 am
Operator : PrashanS
Sample : IC9178-0.2
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 10:36:25 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.291	65	173774	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	238746	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	323923	50.00	ug/L	0.00
71) chlorobenzene-d5	7.539	117	279258	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.750	152	137199	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	95812	48.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.28%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	104347	51.05	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.10%			
72) toluene-d8 (s)	6.275	98	358898	53.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.50%			
96) 4-bromofluorobenzene (s)	8.624	95	123082	51.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.24%			
Target Compounds						Qvalue
6) chlorodifluoromethane	1.818	51	346	0.20	ug/L	63
7) dichlorodifluoromethane	1.808	85	449	0.18	ug/L	89
12) trichlorofluoromethane	2.601	101	549	0.18	ug/L #	78
16) 1,1-dichloroethene	2.989	96	325	0.21	ug/L	80
24) methyl tert butyl ether	3.499	73	902	0.18	ug/L	72
25) trans-1,2-dichloroethene	3.512	96	356	0.21	ug/L #	61
26) hexane	3.698	57	557	0.23	ug/L #	63
27) di-isopropyl ether	3.807	45	1057	0.20	ug/L	88
28) ethyl tert-butyl ether	4.057	59	919	0.17	ug/L	91
30) 1,1-dichloroethane	3.810	63	525	0.18	ug/L	75
31) chloroprene	3.868	53	497	0.20	ug/L	82
35) 2,2-dichloropropane	4.221	77	642	0.25	ug/L #	1
36) cis-1,2-dichloroethene	4.211	96	371	0.20	ug/L #	54
44) 1,1,1-trichloroethane	4.584	97	495	0.18	ug/L #	33
45) cyclohexane	4.641	84	455	0.18	ug/L #	75
46) 1,1-dichloropropene	4.686	75	488	0.21	ug/L #	63
47) carbon tetrachloride	4.699	117	428	0.17	ug/L #	67
52) tert-amyl methyl ether	4.898	73	1027	0.19	ug/L #	51
53) 2,2,4-trimethylpentane	4.895	57	878	0.20	ug/L	81
55) benzene	4.837	78	1465	0.23	ug/L	83
58) trichloroethene	5.315	95	302	0.17	ug/L	86
59) ethyl acrylate	5.331	55	547	0.20	ug/L	70
61) 2-chloroethyl vinyl ether	5.893	63	1193	0.95	ug/L	79
64) methylcyclohexane	5.508	83	459	0.15	ug/L	89
65) dibromomethane	5.585	93	231	0.22	ug/L	79
66) bromodichloromethane	5.704	83	487	0.22	ug/L #	56
67) cis-1,3-dichloropropene	6.050	75	476	0.17	ug/L	69
73) toluene	6.339	92	890	0.23	ug/L	80
74) trans-1,3-dichloropropene	6.496	75	523	0.23	ug/L	94
75) ethyl methacrylate	6.509	69	409	0.17	ug/L	74
77) 2-hexanone	6.840	58	622	0.67	ug/L	88
78) tetrachloroethene	6.772	166	332	0.17	ug/L	91
79) 1,3-dichloropropane	6.824	76	499	0.21	ug/L	91
81) dibromochloromethane	7.016	129	353	0.20	ug/L	87
82) 1,2-dibromoethane	7.135	107	405	0.25	ug/L	94
83) n-butyl ether	7.607	57	1373	0.22	ug/L	81
84) chlorobenzene	7.562	112	972	0.22	ug/L	86
86) ethylbenzene	7.635	91	1580	0.22	ug/L	89
87) m,p-xylene	7.757	106	1218	0.42	ug/L #	68
88) o-xylene	8.114	106	511	0.18	ug/L #	66

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212457.D
Acq On : 29 Jul 2021 11:46 am
Operator : PrashanS
Sample : IC9178-0.2
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 10:36:25 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

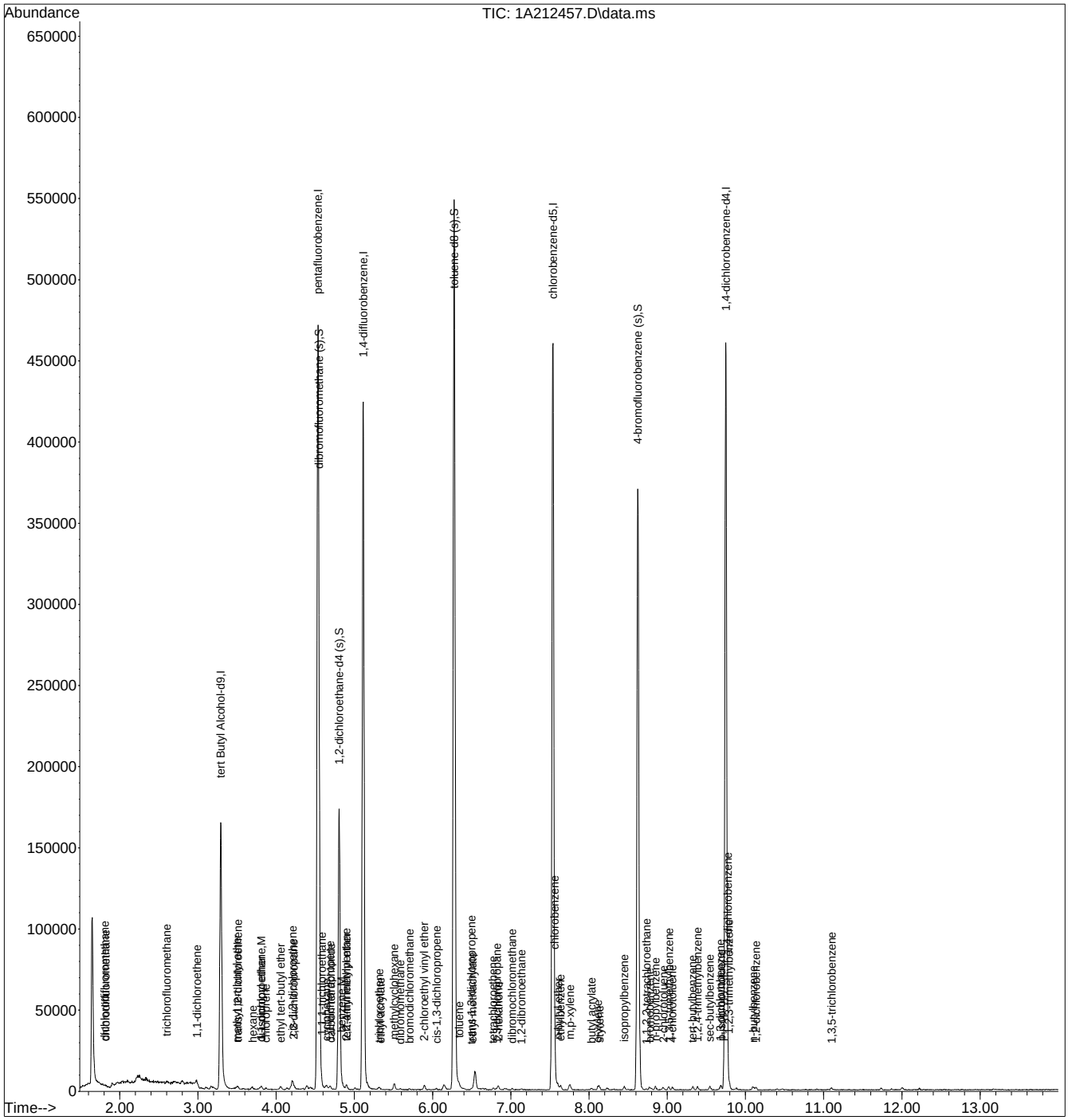
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
89)	butyl acrylate	8.030	55	614	0.18	ug/L		96
91)	styrene	8.133	104	990	0.20	ug/L		77
93)	isopropylbenzene	8.447	105	1646	0.22	ug/L		73
97)	bromobenzene	8.775	156	338	0.17	ug/L	#	53
98)	1,1,2,2-tetrachloroethane	8.733	83	382	0.18	ug/L		72
101)	n-propylbenzene	8.848	91	1955	0.25	ug/L		90
102)	2-chlorotoluene	8.951	126	360	0.21	ug/L	#	31
103)	4-chlorotoluene	9.063	126	303	0.17	ug/L	#	59
104)	1,3,5-trimethylbenzene	9.022	105	1335	0.24	ug/L		85
105)	tert-butylbenzene	9.323	119	1127	0.22	ug/L		91
106)	1,2,4-trimethylbenzene	9.387	105	1300	0.22	ug/L		97
107)	sec-butylbenzene	9.541	105	1797	0.25	ug/L		95
108)	1,3-dichlorobenzene	9.679	146	843	0.24	ug/L		76
109)	p-isopropyltoluene	9.692	119	1566	0.25	ug/L		99
110)	1,2,3-trimethylbenzene	9.789	105	1430	0.25	ug/L		92
111)	1,4-dichlorobenzene	9.773	146	869	0.24	ug/L	#	35
112)	1,2-dichlorobenzene	10.132	146	773	0.23	ug/L		78
113)	n-butylbenzene	10.100	92	667	0.24	ug/L		88
115)	1,3,5-trichlorobenzene	11.101	180	524	0.22	ug/L		91

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212457.D
Acq On : 29 Jul 2021 11:46 am
Operator : PrashanS
Sample : IC9178-0.2
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 30 10:36:25 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212458.D
Acq On : 29 Jul 2021 12:11 pm
Operator : PrashanS
Sample : IC9178-0.5
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 10:37:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.297	65	152128	500.00	ug/L		0.00
5) pentafluorobenzene	4.536	168	210290	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	287452	50.00	ug/L		0.00
71) chlorobenzene-d5	7.539	117	257270	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.750	152	127483	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.548	113	84523	48.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.42%				
51) 1,2-dichloroethane-d4 (s)	4.808	65	91945	50.69	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.38%				
72) toluene-d8 (s)	6.278	98	318595	51.79	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.58%				
96) 4-bromofluorobenzene (s)	8.624	95	113450	50.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.42%				
Target Compounds							Qvalue
4) tertiary butyl alcohol	3.351	59	832	2.40	ug/L		47
6) chlorodifluoromethane	1.824	51	702	0.46	ug/L		63
7) dichlorodifluoromethane	1.814	85	1162	0.52	ug/L		82
9) vinyl chloride	2.068	62	1061	0.50	ug/L		78
12) trichlorofluoromethane	2.613	101	1430	0.52	ug/L		92
13) ethyl ether	2.793	74	443	0.45	ug/L	#	64
15) freon 113	2.979	151	638	0.45	ug/L	#	90
16) 1,1-dichloroethene	2.986	96	774	0.56	ug/L	#	70
19) iodomethane	3.108	142	958	0.48	ug/L		91
21) carbon disulfide	3.169	76	2034	0.54	ug/L		94
24) methyl tert butyl ether	3.499	73	1941	0.43	ug/L		94
25) trans-1,2-dichloroethene	3.515	96	740	0.50	ug/L		83
26) hexane	3.695	57	996	0.47	ug/L		85
27) di-isopropyl ether	3.810	45	2188	0.47	ug/L		78
28) ethyl tert-butyl ether	4.057	59	2055	0.43	ug/L		90
29) 2-butanone	4.186	72	506	1.72	ug/L	#	59
30) 1,1-dichloroethane	3.817	63	1078	0.43	ug/L		71
31) chloroprene	3.871	53	944	0.43	ug/L		83
32) acrylonitrile	3.480	53	380	0.52	ug/L	#	16
35) 2,2-dichloropropane	4.221	77	1134	0.51	ug/L	#	1
36) cis-1,2-dichloroethene	4.218	96	724	0.44	ug/L	#	77
37) propionitrile	4.231	54	1611	4.84	ug/L		71
39) bromochloromethane	4.388	128	390	0.45	ug/L	#	41
41) chloroform	4.430	83	1590	0.61	ug/L		70
44) 1,1,1-trichloroethane	4.584	97	1153	0.47	ug/L	#	62
45) cyclohexane	4.648	84	1179	0.53	ug/L		88
46) 1,1-dichloropropene	4.680	75	942	0.47	ug/L	#	71
47) carbon tetrachloride	4.699	117	1147	0.51	ug/L	#	82
49) tert amyl alcohol	4.789	55	308	2.59	ug/L	#	10
52) tert-amyl methyl ether	4.898	73	2261	0.48	ug/L		96
53) 2,2,4-trimethylpentane	4.901	57	1942	0.50	ug/L		89
55) benzene	4.844	78	2713	0.48	ug/L		82
56) heptane	5.014	57	348	0.42	ug/L	#	72
57) 1,2-dichloroethane	4.863	62	1200	0.63	ug/L		77
58) trichloroethene	5.315	95	677	0.44	ug/L	#	71
59) ethyl acrylate	5.322	55	1075	0.44	ug/L		70
61) 2-chloroethyl vinyl ether	5.893	63	2356	2.12	ug/L		93
63) 1,2-dichloropropane	5.521	63	714	0.52	ug/L		94
64) methylcyclohexane	5.505	83	1194	0.45	ug/L		93
65) dibromomethane	5.591	93	427	0.45	ug/L	#	64

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212458.D
Acq On : 29 Jul 2021 12:11 pm
Operator : PrashanS
Sample : IC9178-0.5
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 10:37:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

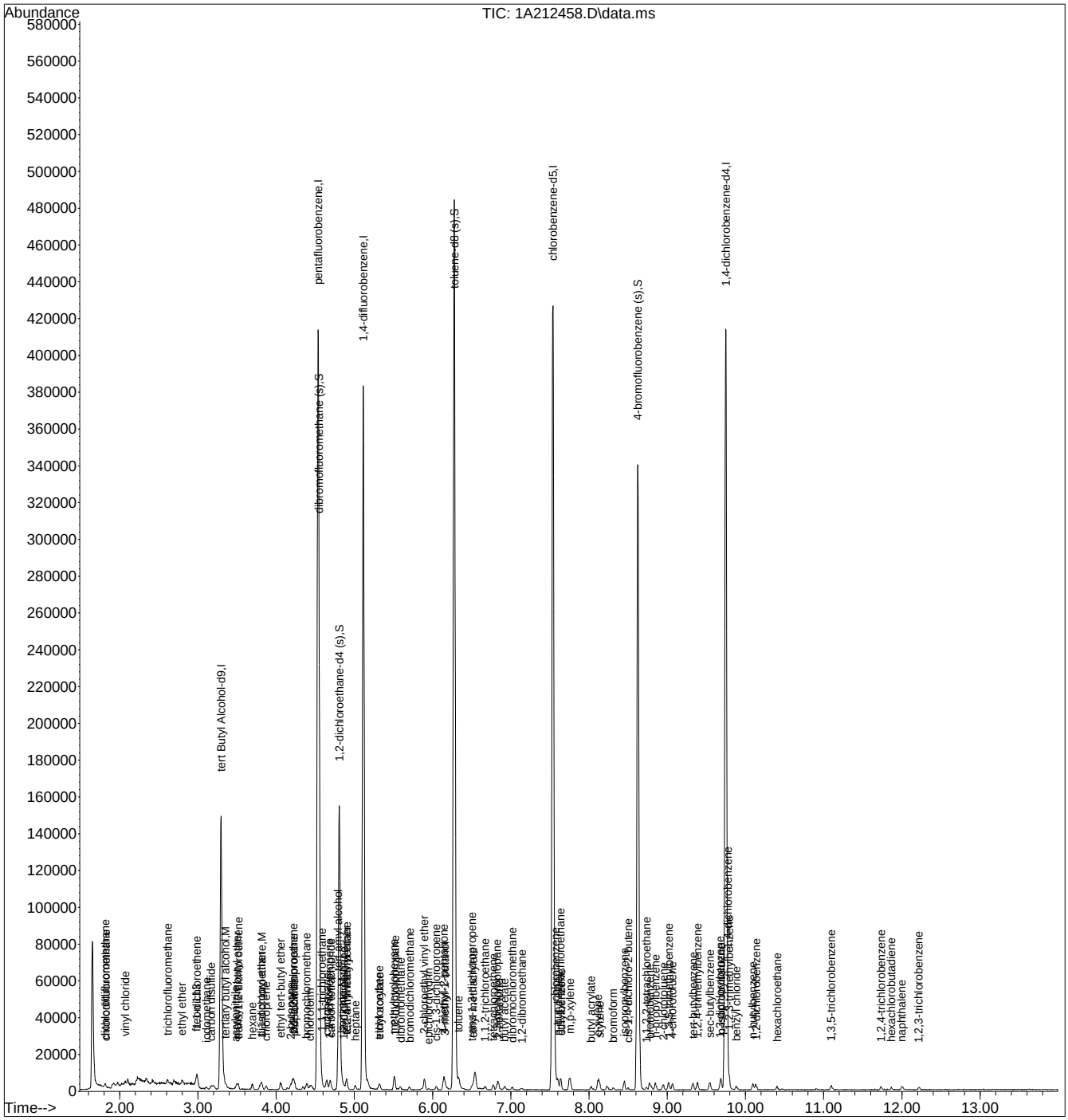
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
66)	bromodichloromethane	5.707	83	963	0.49	ug/L		90
67)	cis-1,3-dichloropropene	6.044	75	1110	0.46	ug/L		77
68)	epichlorohydrin	5.947	57	637	2.56	ug/L		88
69)	4-methyl-2-pentanone	6.140	58	1448	1.73	ug/L	#	84
70)	3-methyl-1-butanol	6.156	70	728	7.85	ug/L	#	55
73)	toluene	6.329	92	1610	0.46	ug/L		84
74)	trans-1,3-dichloropropene	6.503	75	1028	0.48	ug/L		88
75)	ethyl methacrylate	6.519	69	1134	0.52	ug/L		92
76)	1,1,2-trichloroethane	6.669	83	429	0.39	ug/L	#	81
77)	2-hexanone	6.846	58	1610	1.88	ug/L	#	70
78)	tetrachloroethene	6.775	166	912	0.51	ug/L		83
79)	1,3-dichloropropane	6.824	76	1038	0.47	ug/L		93
80)	butyl acetate	6.917	56	572	0.45	ug/L	#	78
81)	dibromochloromethane	7.019	129	891	0.54	ug/L		95
82)	1,2-dibromoethane	7.141	107	687	0.45	ug/L		92
83)	n-butyl ether	7.603	57	2937	0.52	ug/L		97
84)	chlorobenzene	7.568	112	2058	0.50	ug/L		97
85)	1,1,1,2-tetrachloroethane	7.635	131	701	0.45	ug/L		85
86)	ethylbenzene	7.642	91	3254	0.49	ug/L		98
87)	m,p-xylene	7.757	106	2541	0.94	ug/L		91
88)	o-xylene	8.114	106	1320	0.49	ug/L		89
89)	butyl acrylate	8.024	55	1231	0.40	ug/L		88
91)	styrene	8.136	104	2170	0.48	ug/L		95
92)	bromoform	8.306	173	655	0.49	ug/L		63
93)	isopropylbenzene	8.450	105	3159	0.46	ug/L		92
94)	cis-1,4-dichloro-2-butene	8.499	88	365	0.49	ug/L	#	65
97)	bromobenzene	8.775	156	946	0.51	ug/L	#	65
98)	1,1,2,2-tetrachloroethane	8.733	83	915	0.46	ug/L		94
101)	n-propylbenzene	8.848	91	3566	0.48	ug/L		91
102)	2-chlorotoluene	8.951	126	737	0.45	ug/L	#	65
103)	4-chlorotoluene	9.067	126	880	0.53	ug/L	#	62
104)	1,3,5-trimethylbenzene	9.018	105	2601	0.49	ug/L		97
105)	tert-butylbenzene	9.333	119	2442	0.51	ug/L		87
106)	1,2,4-trimethylbenzene	9.387	105	2796	0.51	ug/L		97
107)	sec-butylbenzene	9.545	105	3421	0.52	ug/L		96
108)	1,3-dichlorobenzene	9.676	146	1535	0.46	ug/L		88
109)	p-isopropyltoluene	9.689	119	2845	0.49	ug/L		96
110)	1,2,3-trimethylbenzene	9.792	105	2728	0.50	ug/L		98
111)	1,4-dichlorobenzene	9.773	146	1758	0.53	ug/L		85
112)	1,2-dichlorobenzene	10.135	146	1403	0.45	ug/L		92
113)	n-butylbenzene	10.093	92	1140	0.44	ug/L	#	78
115)	1,3,5-trichlorobenzene	11.095	180	1025	0.46	ug/L		88
116)	1,2,4-trichlorobenzene	11.733	180	832	0.44	ug/L	#	68
117)	hexachlorobutadiene	11.865	225	397	0.51	ug/L	#	71
118)	naphthalene	11.996	128	2441	0.45	ug/L		94
119)	1,2,3-trichlorobenzene	12.211	180	764	0.48	ug/L	#	47
120)	hexachloroethane	10.405	119	464	0.46	ug/L	#	67
121)	benzyl chloride	9.882	91	1856	0.46	ug/L		81

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212458.D
Acq On : 29 Jul 2021 12:11 pm
Operator : PrashanS
Sample : IC9178-0.5
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 30 10:37:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212459.D
Acq On : 29 Jul 2021 12:36 pm
Operator : PrashanS
Sample : IC9178-1
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 30 10:37:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.294	65	144765	500.00	ug/L		0.00
5) pentafluorobenzene	4.535	168	206329	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	282582	50.00	ug/L		0.00
71) chlorobenzene-d5	7.539	117	251774	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.747	152	124052	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.548	113	83207	48.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.74%				
51) 1,2-dichloroethane-d4 (s)	4.805	65	90840	50.95	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.90%				
72) toluene-d8 (s)	6.275	98	315021	52.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.66%				
96) 4-bromofluorobenzene (s)	8.624	95	110917	50.95	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.90%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.553	88	689	21.67	ug/L		81
3) ethanol	2.697	45	4641	135.11	ug/L		85
4) tertiary butyl alcohol	3.348	59	1768	5.35	ug/L		76
6) chlorodifluoromethane	1.824	51	1431	0.95	ug/L		75
7) dichlorodifluoromethane	1.814	85	1708	0.78	ug/L		91
8) chloromethane	1.975	50	1763	0.96	ug/L		89
9) vinyl chloride	2.068	62	1521	0.74	ug/L		92
10) bromomethane	2.337	96	1704	1.63	ug/L		85
11) chloroethane	2.418	64	1501	1.27	ug/L		93
12) trichlorofluoromethane	2.607	101	2125	0.79	ug/L		86
13) ethyl ether	2.799	74	1040	1.08	ug/L		90
15) freon 113	2.979	151	1553	1.11	ug/L	#	78
16) 1,1-dichloroethene	2.992	96	1460	1.08	ug/L	#	72
17) acetone	2.998	58	1152	5.39	ug/L		100
19) iodomethane	3.107	142	1341	0.68	ug/L		93
20) iso-butyl alcohol	4.689	43	1287	11.31	ug/L		78
21) carbon disulfide	3.172	76	3937	1.06	ug/L		98
22) methylene chloride	3.322	84	1649	1.16	ug/L		87
24) methyl tert butyl ether	3.499	73	4169	0.95	ug/L		96
25) trans-1,2-dichloroethene	3.518	96	1411	0.96	ug/L		97
26) hexane	3.701	57	2031	0.97	ug/L		86
27) di-isopropyl ether	3.804	45	4195	0.93	ug/L		96
28) ethyl tert-butyl ether	4.057	59	4633	0.98	ug/L		90
29) 2-butanone	4.186	72	1118	3.87	ug/L	#	49
30) 1,1-dichloroethane	3.813	63	2493	1.01	ug/L		87
31) chloroprene	3.865	53	1949	0.91	ug/L		92
32) acrylonitrile	3.473	53	574	0.81	ug/L		88
35) 2,2-dichloropropane	4.227	77	2194	1.01	ug/L		92
36) cis-1,2-dichloroethene	4.211	96	1543	0.96	ug/L		93
37) propionitrile	4.231	54	3123	9.57	ug/L		94
38) methyl acrylate	4.240	85	286	0.80	ug/L	#	59
39) bromochloromethane	4.378	128	844	0.99	ug/L		92
41) chloroform	4.429	83	2978	1.16	ug/L		95
43) methacrylonitrile	4.343	67	773	0.94	ug/L		88
44) 1,1,1-trichloroethane	4.580	97	2384	0.98	ug/L		91
45) cyclohexane	4.648	84	1749	0.81	ug/L		92
46) 1,1-dichloropropene	4.693	75	1884	0.95	ug/L		92
47) carbon tetrachloride	4.699	117	2240	1.01	ug/L		96
48) isopropyl acetate	4.799	87	493	1.02	ug/L	#	19
49) tert amyl alcohol	4.779	55	671	5.74	ug/L	#	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212459.D
Acq On : 29 Jul 2021 12:36 pm
Operator : PrashanS
Sample : IC9178-1
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 30 10:37:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52)	tert-amyl methyl ether	4.898	73	4551	0.98	ug/L		98
53)	2,2,4-trimethylpentane	4.901	57	4115	1.07	ug/L		90
55)	benzene	4.843	78	5587	1.01	ug/L		97
56)	heptane	5.010	57	901	1.10	ug/L		93
57)	1,2-dichloroethane	4.866	62	2085	1.11	ug/L		91
58)	trichloroethene	5.312	95	1514	1.00	ug/L	#	75
59)	ethyl acrylate	5.325	55	2254	0.94	ug/L		98
61)	2-chloroethyl vinyl ether	5.893	63	4820	4.40	ug/L		90
62)	methyl methacrylate	5.511	100	550	0.94	ug/L	#	60
63)	1,2-dichloropropane	5.521	63	1359	1.01	ug/L		84
64)	methylcyclohexane	5.504	83	2618	1.01	ug/L		94
65)	dibromomethane	5.585	93	941	1.02	ug/L		82
66)	bromodichloromethane	5.697	83	1893	0.98	ug/L		88
67)	cis-1,3-dichloropropene	6.044	75	2368	1.00	ug/L		93
68)	epichlorohydrin	5.954	57	1229	5.02	ug/L		88
69)	4-methyl-2-pentanone	6.140	58	3179	3.85	ug/L	#	86
70)	3-methyl-1-butanol	6.153	70	1476	16.18	ug/L	#	84
73)	toluene	6.336	92	3637	1.06	ug/L		92
74)	trans-1,3-dichloropropene	6.506	75	2296	1.11	ug/L		86
75)	ethyl methacrylate	6.522	69	2176	1.02	ug/L		92
76)	1,1,2-trichloroethane	6.679	83	979	0.92	ug/L		80
77)	2-hexanone	6.836	58	3224	3.85	ug/L		97
78)	tetrachloroethene	6.775	166	1793	1.02	ug/L		90
79)	1,3-dichloropropane	6.823	76	2313	1.08	ug/L		95
80)	butyl acetate	6.916	56	1213	0.98	ug/L		95
81)	dibromochloromethane	7.022	129	1674	1.03	ug/L		82
82)	1,2-dibromoethane	7.135	107	1493	1.01	ug/L		99
83)	n-butyl ether	7.597	57	5697	1.02	ug/L		98
84)	chlorobenzene	7.565	112	4165	1.03	ug/L		93
85)	1,1,1,2-tetrachloroethane	7.632	131	1628	1.08	ug/L		90
86)	ethylbenzene	7.638	91	6986	1.07	ug/L		91
87)	m,p-xylene	7.754	106	5435	2.06	ug/L		99
88)	o-xylene	8.113	106	2780	1.07	ug/L		85
89)	butyl acrylate	8.023	55	2686	0.89	ug/L		88
90)	n-amyl acetate	8.232	70	1093	0.85	ug/L		95
91)	styrene	8.126	104	4608	1.03	ug/L		92
92)	bromoform	8.309	173	1320	1.00	ug/L		79
93)	isopropylbenzene	8.447	105	6465	0.96	ug/L		94
94)	cis-1,4-dichloro-2-butene	8.498	88	581	0.79	ug/L	#	88
97)	bromobenzene	8.768	156	1675	0.92	ug/L	#	74
98)	1,1,2,2-tetrachloroethane	8.729	83	1955	1.02	ug/L		83
100)	1,2,3-trichloropropane	8.790	110	661	1.07	ug/L		86
101)	n-propylbenzene	8.845	91	7366	1.03	ug/L		96
102)	2-chlorotoluene	8.951	126	1626	1.03	ug/L	#	64
103)	4-chlorotoluene	9.060	126	1550	0.96	ug/L	#	81
104)	1,3,5-trimethylbenzene	9.015	105	5216	1.02	ug/L		93
105)	tert-butylbenzene	9.326	119	4581	0.99	ug/L		92
106)	1,2,4-trimethylbenzene	9.387	105	5118	0.96	ug/L		96
107)	sec-butylbenzene	9.548	105	6586	1.03	ug/L		95
108)	1,3-dichlorobenzene	9.679	146	3165	0.98	ug/L		91
109)	p-isopropyltoluene	9.686	119	5712	1.02	ug/L		89
110)	1,2,3-trimethylbenzene	9.792	105	5531	1.05	ug/L		90
111)	1,4-dichlorobenzene	9.769	146	3296	1.03	ug/L		95
112)	1,2-dichlorobenzene	10.135	146	2956	0.97	ug/L		91
113)	n-butylbenzene	10.093	92	2352	0.94	ug/L		92
114)	1,2-dibromo-3-chloropr...	10.902	157	568	0.93	ug/L		92
115)	1,3,5-trichlorobenzene	11.094	180	2118	0.97	ug/L		85
116)	1,2,4-trichlorobenzene	11.733	180	1576	0.86	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212459.D
Acq On : 29 Jul 2021 12:36 pm
Operator : PrashanS
Sample : IC9178-1
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 30 10:37:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

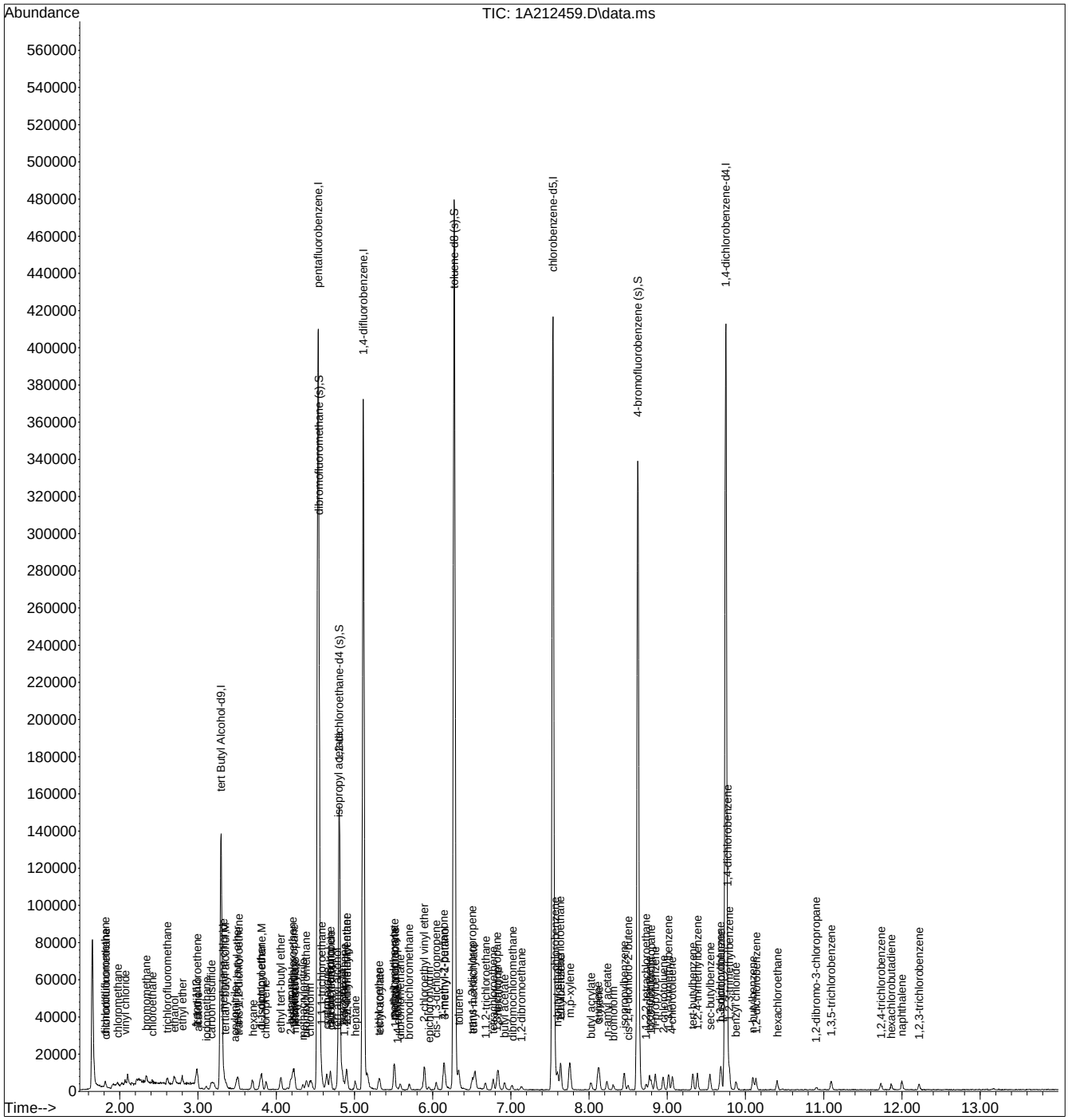
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
117) hexachlorobutadiene	11.861	225	763	1.01	ug/L	87
118) naphthalene	11.999	128	4687	0.89	ug/L	98
119) 1,2,3-trichlorobenzene	12.218	180	1359	0.88	ug/L	92
120) hexachloroethane	10.408	119	1042	1.06	ug/L	82
121) benzyl chloride	9.875	91	3816	0.98	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212459.D
Acq On : 29 Jul 2021 12:36 pm
Operator : PrashanS
Sample : IC9178-1
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 30 10:37:59 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212460.D
Acq On : 29 Jul 2021 1:01 pm
Operator : PrashanS
Sample : IC9178-2
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 10:38:49 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.297	65	155779	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	204740	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	281271	50.00	ug/L		0.00
71) chlorobenzene-d5	7.536	117	252481	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.750	152	125596	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.548	113	82626	48.91	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.82%				
51) 1,2-dichloroethane-d4 (s)	4.808	65	90532	51.01	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.02%				
72) toluene-d8 (s)	6.275	98	314830	52.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.30%				
96) 4-bromofluorobenzene (s)	8.624	95	111135	50.42	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.556	88	1576	46.07	ug/L		75
3) ethanol	2.697	45	8020	216.98	ug/L		97
4) tertiary butyl alcohol	3.355	59	3615	10.17	ug/L		96
6) chlorodifluoromethane	1.824	51	2923	1.96	ug/L		89
7) dichlorodifluoromethane	1.811	85	4348	2.00	ug/L		96
8) chloromethane	1.968	50	4038	2.22	ug/L		91
9) vinyl chloride	2.068	62	4086	1.99	ug/L		89
10) bromomethane	2.337	96	3034	2.92	ug/L		93
11) chloroethane	2.421	64	2762	2.36	ug/L		90
12) trichlorofluoromethane	2.607	101	5616	2.09	ug/L		92
13) ethyl ether	2.796	74	1981	2.08	ug/L		95
15) freon 113	2.976	151	2881	2.08	ug/L	#	80
16) 1,1-dichloroethene	2.992	96	2826	2.12	ug/L		86
17) acetone	2.995	58	2229	10.51	ug/L	#	80
19) iodomethane	3.104	142	2525	1.30	ug/L		97
20) iso-butyl alcohol	4.689	43	2272	20.12	ug/L		89
21) carbon disulfide	3.168	76	7558	2.05	ug/L		96
22) methylene chloride	3.319	84	3200	2.26	ug/L		85
23) methyl acetate	3.204	74	852	2.22	ug/L	#	41
24) methyl tert butyl ether	3.499	73	8664	1.98	ug/L		86
25) trans-1,2-dichloroethene	3.518	96	2792	1.92	ug/L		99
26) hexane	3.695	57	3955	1.90	ug/L		93
27) di-isopropyl ether	3.810	45	8835	1.96	ug/L		90
28) ethyl tert-butyl ether	4.061	59	9293	1.98	ug/L		95
29) 2-butanone	4.182	72	2120	7.39	ug/L		94
30) 1,1-dichloroethane	3.820	63	4833	1.98	ug/L		97
31) chloroprene	3.871	53	4363	2.05	ug/L		96
32) acrylonitrile	3.473	53	1377	1.95	ug/L		78
34) ethyl acetate	4.186	45	665	1.90	ug/L		84
35) 2,2-dichloropropane	4.221	77	4338	2.01	ug/L		69
36) cis-1,2-dichloroethene	4.211	96	3087	1.94	ug/L		86
37) propionitrile	4.227	54	6675	20.61	ug/L		81
38) methyl acrylate	4.234	85	718	2.02	ug/L	#	74
39) bromochloromethane	4.385	128	1768	2.10	ug/L		88
40) tetrahydrofuran	4.394	72	1024	3.00	ug/L		87
41) chloroform	4.433	83	5437	2.13	ug/L		97
43) methacrylonitrile	4.336	67	1553	1.90	ug/L		84
44) 1,1,1-trichloroethane	4.580	97	4684	1.94	ug/L		93
45) cyclohexane	4.645	84	4668	2.17	ug/L		96
46) 1,1-dichloropropene	4.693	75	3851	1.97	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212460.D
Acq On : 29 Jul 2021 1:01 pm
Operator : PrashanS
Sample : IC9178-2
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 10:38:49 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) carbon tetrachloride	4.702	117	4701	2.13	ug/L		88
48) isopropyl acetate	4.802	87	888	1.86	ug/L	#	56
49) tert amyl alcohol	4.776	55	1172	10.11	ug/L	#	88
52) tert-amyl methyl ether	4.898	73	9317	2.02	ug/L		95
53) 2,2,4-trimethylpentane	4.904	57	7901	2.06	ug/L		95
54) n-butyl alcohol	5.164	56	8417	94.63	ug/L		94
55) benzene	4.843	78	11470	2.09	ug/L		94
56) heptane	5.007	57	1640	2.01	ug/L	#	81
57) 1,2-dichloroethane	4.866	62	4106	2.19	ug/L		96
58) trichloroethene	5.312	95	3004	2.00	ug/L	#	82
59) ethyl acrylate	5.328	55	4786	2.00	ug/L		97
61) 2-chloroethyl vinyl ether	5.896	63	10777	9.89	ug/L		94
62) methyl methacrylate	5.511	100	1139	1.96	ug/L	#	75
63) 1,2-dichloropropane	5.511	63	2693	2.01	ug/L		96
64) methylcyclohexane	5.508	83	5168	2.01	ug/L		89
65) dibromomethane	5.585	93	1802	1.96	ug/L		96
66) bromodichloromethane	5.703	83	3974	2.06	ug/L		99
67) cis-1,3-dichloropropene	6.047	75	4689	1.98	ug/L		98
68) epichlorohydrin	5.951	57	2473	10.14	ug/L		90
69) 4-methyl-2-pentanone	6.143	58	6322	7.70	ug/L		94
70) 3-methyl-1-butanol	6.153	70	3284	36.17	ug/L	#	74
73) toluene	6.332	92	7174	2.08	ug/L		87
74) trans-1,3-dichloropropene	6.499	75	4393	2.11	ug/L		89
75) ethyl methacrylate	6.519	69	4211	1.97	ug/L		96
76) 1,1,2-trichloroethane	6.676	83	2286	2.13	ug/L		90
77) 2-hexanone	6.836	58	6735	8.03	ug/L		92
78) tetrachloroethene	6.778	166	3943	2.23	ug/L		94
79) 1,3-dichloropropane	6.820	76	4709	2.18	ug/L		93
80) butyl acetate	6.926	56	2545	2.06	ug/L		83
81) dibromochloromethane	7.016	129	3233	1.99	ug/L		97
82) 1,2-dibromoethane	7.135	107	2973	2.00	ug/L		94
83) n-butyl ether	7.600	57	11638	2.08	ug/L		98
84) chlorobenzene	7.565	112	8021	1.99	ug/L		90
85) 1,1,1,2-tetrachloroethane	7.629	131	3146	2.07	ug/L		91
86) ethylbenzene	7.635	91	13683	2.09	ug/L		98
87) m,p-xylene	7.751	106	11203	4.22	ug/L		94
88) o-xylene	8.120	106	5529	2.11	ug/L	#	71
89) butyl acrylate	8.024	55	5818	1.92	ug/L		95
90) n-amyl acetate	8.226	70	2503	1.94	ug/L		92
91) styrene	8.129	104	8553	1.91	ug/L		97
92) bromoform	8.309	173	2614	1.98	ug/L		87
93) isopropylbenzene	8.454	105	13430	1.99	ug/L		98
94) cis-1,4-dichloro-2-butene	8.495	88	1448	1.97	ug/L		92
97) bromobenzene	8.774	156	3939	2.14	ug/L	#	75
98) 1,1,2,2-tetrachloroethane	8.729	83	4043	2.08	ug/L		93
99) trans-1,4-dichloro-2-b...	8.771	53	1053	1.92	ug/L		92
100) 1,2,3-trichloropropane	8.790	110	1399	2.23	ug/L		74
101) n-propylbenzene	8.851	91	15269	2.11	ug/L		98
102) 2-chlorotoluene	8.948	126	3603	2.26	ug/L	#	82
103) 4-chlorotoluene	9.063	126	3341	2.05	ug/L		86
104) 1,3,5-trimethylbenzene	9.015	105	10706	2.06	ug/L		97
105) tert-butylbenzene	9.326	119	9818	2.09	ug/L		95
106) 1,2,4-trimethylbenzene	9.384	105	10898	2.02	ug/L		99
107) sec-butylbenzene	9.545	105	12800	1.98	ug/L		97
108) 1,3-dichlorobenzene	9.679	146	6556	2.00	ug/L		99
109) p-isopropyltoluene	9.692	119	11334	1.99	ug/L		97
110) 1,2,3-trimethylbenzene	9.792	105	10896	2.04	ug/L		97
111) 1,4-dichlorobenzene	9.776	146	6600	2.03	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212460.D
Acq On : 29 Jul 2021 1:01 pm
Operator : PrashanS
Sample : IC9178-2
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 10:38:49 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

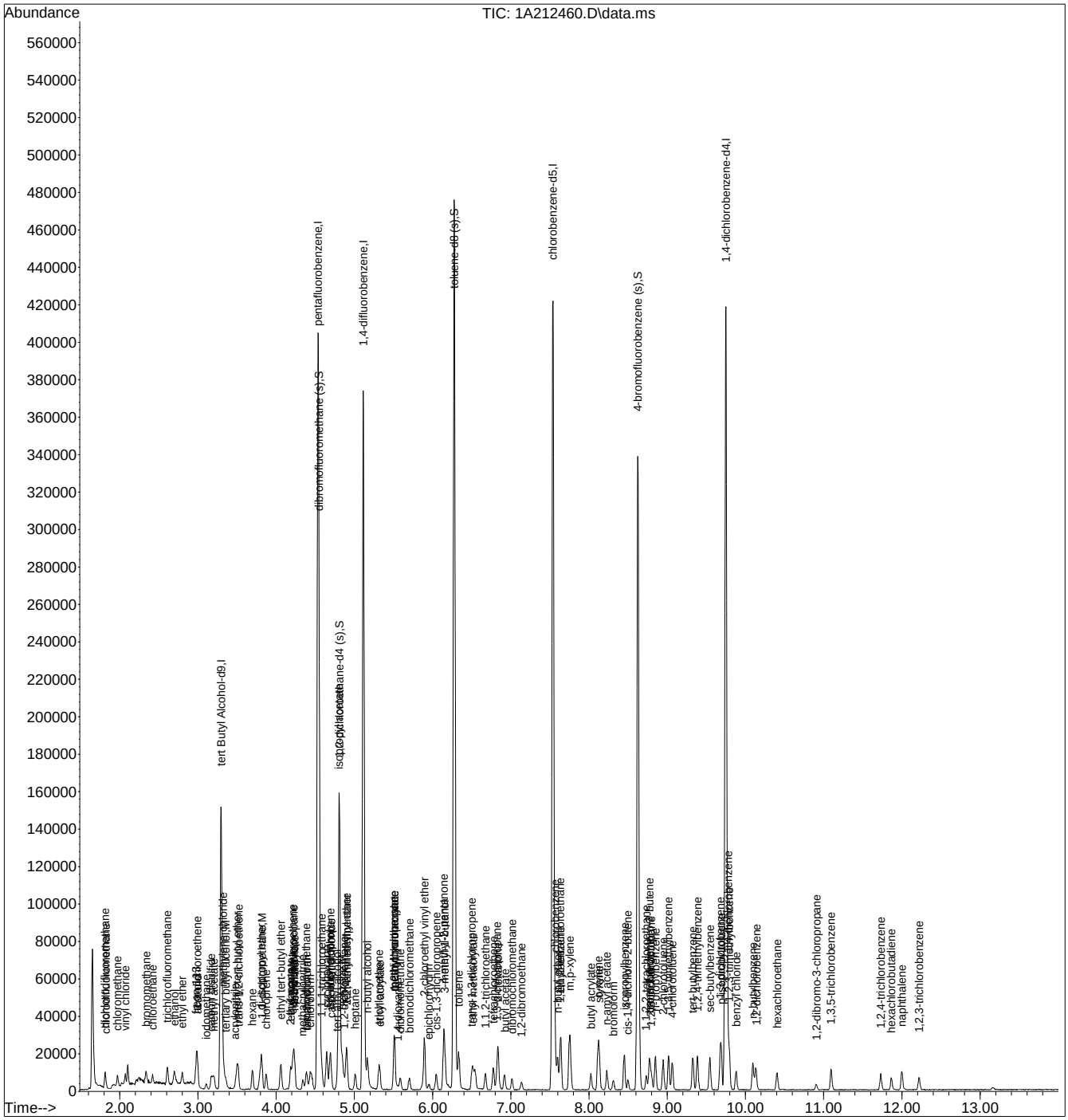
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) 1,2-dichlorobenzene	10.138	146	5989	1.95	ug/L	91
113) n-butylbenzene	10.096	92	5056	1.99	ug/L	87
114) 1,2-dibromo-3-chloropr...	10.908	157	1156	1.87	ug/L	91
115) 1,3,5-trichlorobenzene	11.091	180	4295	1.94	ug/L	93
116) 1,2,4-trichlorobenzene	11.730	180	3323	1.79	ug/L	96
117) hexachlorobutadiene	11.865	225	1558	2.04	ug/L	90
118) naphthalene	11.999	128	9508	1.78	ug/L	98
119) 1,2,3-trichlorobenzene	12.221	180	3045	1.96	ug/L	81
120) hexachloroethane	10.405	119	2020	2.04	ug/L	87
121) benzyl chloride	9.881	91	7777	1.97	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212460.D
Acq On : 29 Jul 2021 1:01 pm
Operator : PrashanS
Sample : IC9178-2
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 30 10:38:49 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212461.D
Acq On : 29 Jul 2021 1:26 pm
Operator : PrashanS
Sample : IC9178-4
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 30 10:39:22 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.294	65	139730	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	201344	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.116	114	278363	50.00	ug/L		0.00
71) chlorobenzene-d5	7.539	117	251324	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.750	152	125815	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.548	113	81539	49.08	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.16%				
51) 1,2-dichloroethane-d4 (s)	4.805	65	91058	51.84	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.68%				
72) toluene-d8 (s)	6.278	98	312892	52.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.14%				
96) 4-bromofluorobenzene (s)	8.624	95	111978	50.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.42%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.553	88	3631	118.33	ug/L		93
3) ethanol	2.700	45	17365	523.76	ug/L		97
4) tertiary butyl alcohol	3.351	59	8130	25.51	ug/L		89
6) chlorodifluoromethane	1.824	51	5812	3.96	ug/L		95
7) dichlorodifluoromethane	1.811	85	8355	3.92	ug/L		98
8) chloromethane	1.972	50	7408	4.14	ug/L		93
9) vinyl chloride	2.071	62	7859	3.90	ug/L		94
10) bromomethane	2.337	96	5351	5.24	ug/L		90
11) chloroethane	2.418	64	4956	4.30	ug/L		87
12) trichlorofluoromethane	2.610	101	10657	4.04	ug/L		99
13) ethyl ether	2.799	74	3907	4.17	ug/L		95
14) acrolein	2.902	56	1474	3.97	ug/L		89
15) freon 113	2.979	151	5294	3.88	ug/L		95
16) 1,1-dichloroethene	2.989	96	5069	3.86	ug/L		91
17) acetone	2.998	58	4420	21.20	ug/L		86
18) acetonitrile	3.194	40	6983	50.16	ug/L		83
19) iodomethane	3.107	142	5390	2.82	ug/L		91
20) iso-butyl alcohol	4.683	43	5935	53.44	ug/L		88
21) carbon disulfide	3.168	76	14921	4.12	ug/L		97
22) methylene chloride	3.322	84	6098	4.38	ug/L		97
23) methyl acetate	3.207	74	1777	4.72	ug/L	#	74
24) methyl tert butyl ether	3.502	73	18233	4.24	ug/L		93
25) trans-1,2-dichloroethene	3.518	96	5816	4.07	ug/L		98
26) hexane	3.695	57	7877	3.84	ug/L		97
27) di-isopropyl ether	3.810	45	18677	4.22	ug/L		94
28) ethyl tert-butyl ether	4.061	59	19854	4.30	ug/L		92
29) 2-butanone	4.186	72	4932	17.49	ug/L	#	84
30) 1,1-dichloroethane	3.813	63	10123	4.22	ug/L		89
31) chloroprene	3.871	53	8345	3.98	ug/L		96
32) acrylonitrile	3.480	53	2577	3.71	ug/L		92
33) vinyl acetate	3.791	86	1686	4.45	ug/L	#	86
34) ethyl acetate	4.189	45	1657	4.81	ug/L		87
35) 2,2-dichloropropane	4.221	77	9400	4.42	ug/L		88
36) cis-1,2-dichloroethene	4.211	96	6533	4.17	ug/L		91
37) propionitrile	4.234	54	14577	45.76	ug/L		98
38) methyl acrylate	4.234	85	1450	4.15	ug/L	#	83
39) bromochloromethane	4.378	128	3596	4.34	ug/L		79
40) tetrahydrofuran	4.397	72	1657	4.93	ug/L	#	72
41) chloroform	4.433	83	10865	4.33	ug/L		96
43) methacrylonitrile	4.343	67	3662	4.57	ug/L		85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212461.D
Acq On : 29 Jul 2021 1:26 pm
Operator : PrashanS
Sample : IC9178-4
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 30 10:39:22 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	4.584	97	9669	4.08	ug/L		85
45) cyclohexane	4.648	84	8459	4.00	ug/L		95
46) 1,1-dichloropropene	4.693	75	8094	4.20	ug/L		94
47) carbon tetrachloride	4.699	117	8984	4.15	ug/L		94
48) isopropyl acetate	4.805	87	2152	4.58	ug/L	#	62
49) tert amyl alcohol	4.779	55	2965	26.00	ug/L		94
52) tert-amyl methyl ether	4.898	73	21140	4.63	ug/L		99
53) 2,2,4-trimethylpentane	4.904	57	15928	4.20	ug/L		95
54) n-butyl alcohol	5.161	56	19738	224.22	ug/L		100
55) benzene	4.840	78	23145	4.26	ug/L		98
56) heptane	5.007	57	3194	3.95	ug/L		91
57) 1,2-dichloroethane	4.863	62	8444	4.56	ug/L		95
58) trichloroethene	5.312	95	6437	4.33	ug/L		91
59) ethyl acrylate	5.325	55	10575	4.47	ug/L		98
61) 2-chloroethyl vinyl ether	5.896	63	23183	21.49	ug/L		98
62) methyl methacrylate	5.508	100	2385	4.14	ug/L	#	77
63) 1,2-dichloropropane	5.511	63	5838	4.39	ug/L		94
64) methylcyclohexane	5.508	83	10073	3.95	ug/L		98
65) dibromomethane	5.588	93	3985	4.37	ug/L		97
66) bromodichloromethane	5.703	83	8084	4.24	ug/L		94
67) cis-1,3-dichloropropene	6.044	75	10135	4.33	ug/L		92
68) epichlorohydrin	5.954	57	5349	22.16	ug/L		98
69) 4-methyl-2-pentanone	6.146	58	14553	17.91	ug/L		95
70) 3-methyl-1-butanol	6.153	70	7848	87.33	ug/L	#	88
73) toluene	6.336	92	15397	4.48	ug/L		98
74) trans-1,3-dichloropropene	6.499	75	9260	4.47	ug/L		95
75) ethyl methacrylate	6.515	69	9738	4.57	ug/L		94
76) 1,1,2-trichloroethane	6.679	83	4908	4.60	ug/L		84
77) 2-hexanone	6.836	58	15821	18.95	ug/L		95
78) tetrachloroethene	6.769	166	7532	4.28	ug/L		84
79) 1,3-dichloropropane	6.820	76	9709	4.53	ug/L		97
80) butyl acetate	6.916	56	5703	4.63	ug/L		98
81) dibromochloromethane	7.013	129	7291	4.50	ug/L		91
82) 1,2-dibromoethane	7.135	107	6622	4.47	ug/L		98
83) n-butyl ether	7.600	57	24619	4.43	ug/L		100
84) chlorobenzene	7.565	112	17683	4.40	ug/L		95
85) 1,1,1,2-tetrachloroethane	7.635	131	6842	4.53	ug/L		94
86) ethylbenzene	7.638	91	29168	4.47	ug/L		97
87) m,p-xylene	7.751	106	23108	8.75	ug/L		89
88) o-xylene	8.113	106	12036	4.62	ug/L		98
89) butyl acrylate	8.024	55	13304	4.41	ug/L		98
90) n-amyl acetate	8.226	70	6009	4.67	ug/L	#	78
91) styrene	8.129	104	19700	4.43	ug/L		97
92) bromoform	8.306	173	5862	4.47	ug/L		99
93) isopropylbenzene	8.450	105	29389	4.37	ug/L		99
94) cis-1,4-dichloro-2-butene	8.495	88	3090	4.23	ug/L		90
97) bromobenzene	8.774	156	8155	4.43	ug/L		88
98) 1,1,2,2-tetrachloroethane	8.733	83	8888	4.57	ug/L		94
99) trans-1,4-dichloro-2-b...	8.768	53	2432	4.42	ug/L	#	82
100) 1,2,3-trichloropropane	8.797	110	3263	5.19	ug/L		90
101) n-propylbenzene	8.845	91	31826	4.38	ug/L		98
102) 2-chlorotoluene	8.951	126	7024	4.39	ug/L		95
103) 4-chlorotoluene	9.063	126	7310	4.48	ug/L		97
104) 1,3,5-trimethylbenzene	9.015	105	22495	4.33	ug/L		100
105) tert-butylbenzene	9.330	119	19869	4.23	ug/L		96
106) 1,2,4-trimethylbenzene	9.384	105	23355	4.31	ug/L		100
107) sec-butylbenzene	9.545	105	27662	4.28	ug/L		98
108) 1,3-dichlorobenzene	9.679	146	14215	4.34	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212461.D
Acq On : 29 Jul 2021 1:26 pm
Operator : PrashanS
Sample : IC9178-4
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 30 10:39:22 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

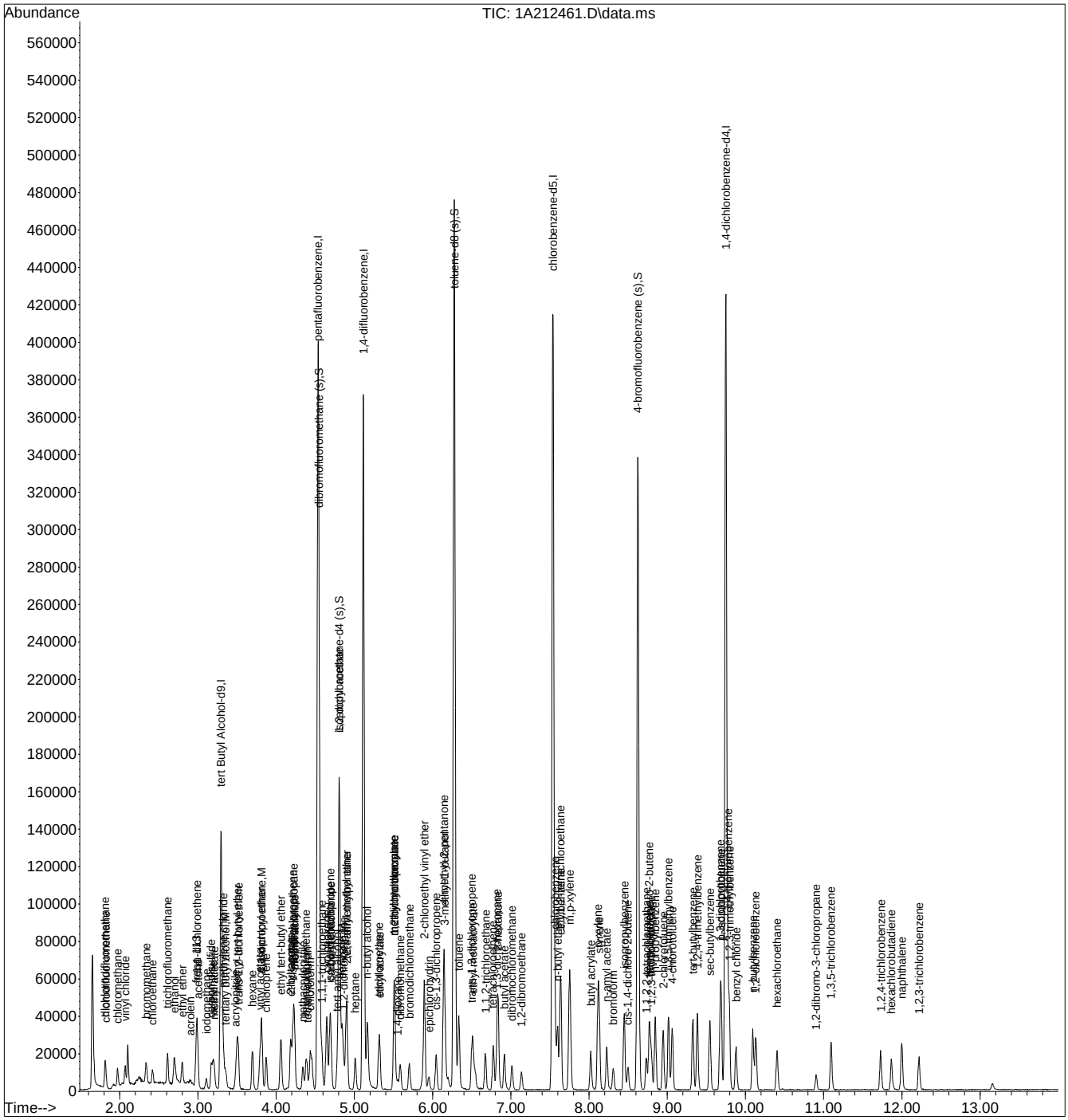
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	9.689	119	24653	4.33	ug/L	95
110) 1,2,3-trimethylbenzene	9.795	105	24020	4.50	ug/L	99
111) 1,4-dichlorobenzene	9.776	146	14654	4.50	ug/L	96
112) 1,2-dichlorobenzene	10.129	146	13814	4.49	ug/L	98
113) n-butylbenzene	10.096	92	10358	4.08	ug/L	88
114) 1,2-dibromo-3-chloropr...	10.902	157	2889	4.67	ug/L	88
115) 1,3,5-trichlorobenzene	11.091	180	9724	4.38	ug/L	98
116) 1,2,4-trichlorobenzene	11.733	180	7592	4.09	ug/L	88
117) hexachlorobutadiene	11.865	225	3452	4.51	ug/L	96
118) naphthalene	11.999	128	22641	4.23	ug/L	96
119) 1,2,3-trichlorobenzene	12.218	180	6404	4.11	ug/L	98
120) hexachloroethane	10.401	119	4341	4.37	ug/L	92
121) benzyl chloride	9.881	91	18387	4.64	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212461.D
Acq On : 29 Jul 2021 1:26 pm
Operator : PrashanS
Sample : IC9178-4
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 30 10:39:22 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212462.D
Acq On : 29 Jul 2021 1:51 pm
Operator : PrashanS
Sample : IC9178-8
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 08:50:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.294	65	144227	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	198901	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	275396	50.00	ug/L		0.00
71) chlorobenzene-d5	7.539	117	250871	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.750	152	126526	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.545	113	80959	49.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.66%				
51) 1,2-dichloroethane-d4 (s)	4.805	65	88266	50.79	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.58%				
72) toluene-d8 (s)	6.275	98	312831	52.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.30%				
96) 4-bromofluorobenzene (s)	8.624	95	111513	50.22	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.44%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.556	88	6459	203.93	ug/L		93
3) ethanol	2.697	45	29619	865.51	ug/L		93
4) tertiary butyl alcohol	3.351	59	13707	41.66	ug/L		96
6) chlorodifluoromethane	1.824	51	11342	7.82	ug/L		95
7) dichlorodifluoromethane	1.808	85	15269	7.25	ug/L		98
8) chloromethane	1.972	50	13863	7.84	ug/L		98
9) vinyl chloride	2.068	62	14767	7.41	ug/L		97
10) bromomethane	2.337	96	9367	9.28	ug/L		86
11) chloroethane	2.414	64	9128	8.01	ug/L		93
12) trichlorofluoromethane	2.607	101	19924	7.64	ug/L		99
13) ethyl ether	2.799	74	7175	7.75	ug/L		92
14) acrolein	2.902	56	3138	8.56	ug/L		95
15) freon 113	2.976	151	10951	8.12	ug/L		92
16) 1,1-dichloroethene	2.986	96	10314	7.95	ug/L		97
17) acetone	2.998	58	7153	34.72	ug/L	#	82
18) acetonitrile	3.191	40	12492	90.83	ug/L		84
19) iodomethane	3.107	142	11122	5.88	ug/L		92
20) iso-butyl alcohol	4.680	43	10001	91.16	ug/L		97
21) carbon disulfide	3.172	76	28851	8.07	ug/L		97
22) methylene chloride	3.322	84	11110	8.08	ug/L		99
23) methyl acetate	3.207	74	3021	8.12	ug/L		90
24) methyl tert butyl ether	3.496	73	33095	7.78	ug/L		97
25) trans-1,2-dichloroethene	3.515	96	11119	7.88	ug/L		94
26) hexane	3.695	57	15620	7.72	ug/L		98
27) di-isopropyl ether	3.810	45	34232	7.84	ug/L		96
28) ethyl tert-butyl ether	4.057	59	35346	7.75	ug/L		98
29) 2-butanone	4.182	72	8605	30.89	ug/L		97
30) 1,1-dichloroethane	3.820	63	18990	8.01	ug/L		94
31) chloroprene	3.871	53	16923	8.17	ug/L		98
32) acrylonitrile	3.473	53	5222	7.60	ug/L		95
33) vinyl acetate	3.788	86	2848	7.61	ug/L	#	92
34) ethyl acetate	4.182	45	2881	8.47	ug/L		84
35) 2,2-dichloropropane	4.221	77	17586	8.38	ug/L		96
36) cis-1,2-dichloroethene	4.211	96	12289	7.94	ug/L		92
37) propionitrile	4.227	54	24804	78.82	ug/L		85
38) methyl acrylate	4.237	85	2586	7.49	ug/L		96
39) bromochloromethane	4.385	128	6849	8.36	ug/L		81
40) tetrahydrofuran	4.397	72	2855	8.60	ug/L		88
41) chloroform	4.433	83	20128	8.12	ug/L		97
43) methacrylonitrile	4.343	67	6244	7.88	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212462.D
Acq On : 29 Jul 2021 1:51 pm
Operator : PrashanS
Sample : IC9178-8
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 08:50:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	4.584	97	18551	7.92	ug/L		96
45) cyclohexane	4.645	84	16252	7.78	ug/L		90
46) 1,1-dichloropropene	4.686	75	15483	8.13	ug/L		95
47) carbon tetrachloride	4.696	117	17281	8.07	ug/L		93
48) isopropyl acetate	4.799	87	3606	7.76	ug/L	#	91
49) tert amyl alcohol	4.783	55	4899	43.49	ug/L		93
52) tert-amyl methyl ether	4.898	73	36411	8.06	ug/L		95
53) 2,2,4-trimethylpentane	4.904	57	30402	8.10	ug/L		95
54) n-butyl alcohol	5.164	56	34368	394.62	ug/L		94
55) benzene	4.840	78	43056	8.02	ug/L		99
56) heptane	5.010	57	6282	7.86	ug/L		94
57) 1,2-dichloroethane	4.860	62	15400	8.40	ug/L		91
58) trichloroethene	5.312	95	11487	7.81	ug/L		92
59) ethyl acrylate	5.325	55	18119	7.75	ug/L		97
61) 2-chloroethyl vinyl ether	5.893	63	40596	38.04	ug/L		98
62) methyl methacrylate	5.508	100	4573	8.03	ug/L	#	90
63) 1,2-dichloropropane	5.514	63	10489	7.98	ug/L		93
64) methylcyclohexane	5.505	83	19808	7.85	ug/L		96
65) dibromomethane	5.585	93	7048	7.81	ug/L		93
66) bromodichloromethane	5.703	83	15296	8.10	ug/L		95
67) cis-1,3-dichloropropene	6.044	75	18422	7.96	ug/L		98
68) epichlorohydrin	5.947	57	9736	40.77	ug/L		95
69) 4-methyl-2-pentanone	6.140	58	24897	30.98	ug/L	#	90
70) 3-methyl-1-butanol	6.156	70	13878	156.10	ug/L		87
73) toluene	6.336	92	28904	8.42	ug/L		99
74) trans-1,3-dichloropropene	6.499	75	16466	7.96	ug/L		97
75) ethyl methacrylate	6.512	69	17383	8.17	ug/L		97
76) 1,1,2-trichloroethane	6.676	83	8587	8.06	ug/L		87
77) 2-hexanone	6.836	58	27058	32.46	ug/L		95
78) tetrachloroethene	6.775	166	14542	8.28	ug/L		98
79) 1,3-dichloropropane	6.820	76	17613	8.22	ug/L		98
80) butyl acetate	6.916	56	9475	7.70	ug/L		92
81) dibromochloromethane	7.016	129	13308	8.23	ug/L		94
82) 1,2-dibromoethane	7.135	107	11581	7.83	ug/L		99
83) n-butyl ether	7.597	57	44563	8.03	ug/L		99
84) chlorobenzene	7.561	112	32173	8.02	ug/L		97
85) 1,1,1,2-tetrachloroethane	7.632	131	12153	8.06	ug/L		96
86) ethylbenzene	7.635	91	54255	8.32	ug/L		97
87) m,p-xylene	7.751	106	42874	16.27	ug/L		98
88) o-xylene	8.113	106	21105	8.11	ug/L		96
89) butyl acrylate	8.020	55	23339	7.75	ug/L		95
90) n-amyl acetate	8.226	70	10173	7.92	ug/L		97
91) styrene	8.129	104	35526	8.00	ug/L		93
92) bromoform	8.312	173	10159	7.76	ug/L		96
93) isopropylbenzene	8.447	105	54076	8.05	ug/L		99
94) cis-1,4-dichloro-2-butene	8.502	88	5461	7.48	ug/L		96
97) bromobenzene	8.771	156	15096	8.15	ug/L		95
98) 1,1,2,2-tetrachloroethane	8.733	83	14849	7.59	ug/L		98
99) trans-1,4-dichloro-2-b...	8.771	53	4257	7.69	ug/L		93
100) 1,2,3-trichloropropane	8.797	110	5333	8.44	ug/L		92
101) n-propylbenzene	8.845	91	59128	8.10	ug/L		96
102) 2-chlorotoluene	8.948	126	12721	7.91	ug/L		92
103) 4-chlorotoluene	9.063	126	13394	8.15	ug/L		88
104) 1,3,5-trimethylbenzene	9.015	105	42445	8.12	ug/L		96
105) tert-butylbenzene	9.323	119	37858	8.01	ug/L		94
106) 1,2,4-trimethylbenzene	9.384	105	43027	7.90	ug/L		97
107) sec-butylbenzene	9.545	105	52187	8.02	ug/L		98
108) 1,3-dichlorobenzene	9.676	146	26130	7.93	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212462.D
Acq On : 29 Jul 2021 1:51 pm
Operator : PrashanS
Sample : IC9178-8
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 08:50:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

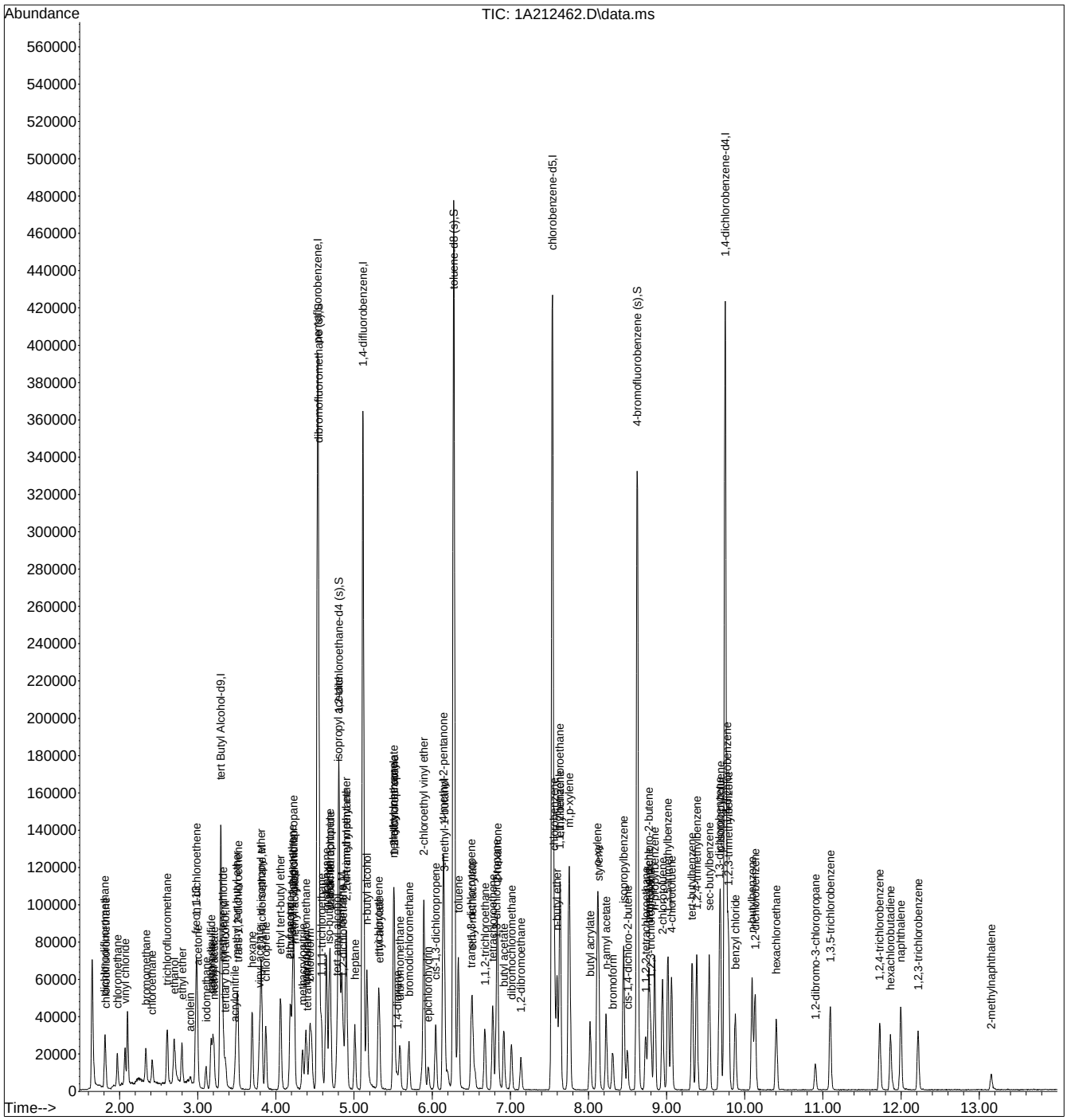
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	9.689	119	45942	8.02	ug/L	97
110) 1,2,3-trimethylbenzene	9.792	105	43831	8.17	ug/L	97
111) 1,4-dichlorobenzene	9.772	146	25756	7.86	ug/L	99
112) 1,2-dichlorobenzene	10.132	146	24093	7.78	ug/L	92
113) n-butylbenzene	10.093	92	19084	7.47	ug/L	95
114) 1,2-dibromo-3-chloropr...	10.905	157	4921	7.91	ug/L	93
115) 1,3,5-trichlorobenzene	11.094	180	17056	7.63	ug/L	92
116) 1,2,4-trichlorobenzene	11.723	180	13737	7.36	ug/L	96
117) hexachlorobutadiene	11.865	225	5967	7.75	ug/L	91
118) naphthalene	11.996	128	39797	7.39	ug/L	98
119) 1,2,3-trichlorobenzene	12.221	180	11779	7.51	ug/L	99
120) hexachloroethane	10.401	119	7956	7.96	ug/L	93
121) benzyl chloride	9.878	91	31275	7.85	ug/L	98
122) 2-methylnaphthalene	13.155	142	5811	3.04	ug/L	94

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212462.D
Acq On : 29 Jul 2021 1:51 pm
Operator : PrashanS
Sample : IC9178-8
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 30 08:50:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212463.D
Acq On : 29 Jul 2021 2:16 pm
Operator : PrashanS
Sample : IC9178-20
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 08:50:55 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.297	65	150134	500.00	ug/L	0.00
5) pentafluorobenzene	4.535	168	197796	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	278090	50.00	ug/L	0.00
71) chlorobenzene-d5	7.539	117	256414	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.750	152	128898	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.548	113	81086	49.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	89822	51.19	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.38%			
72) toluene-d8 (s)	6.275	98	314180	51.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.50%			
96) 4-bromofluorobenzene (s)	8.624	95	114566	50.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.553	88	15323	464.76	ug/L	88
3) ethanol	2.697	45	69435	1949.15	ug/L	98
4) tertiary butyl alcohol	3.355	59	32234	94.13	ug/L	97
6) chlorodifluoromethane	1.821	51	25984	18.02	ug/L	100
7) dichlorodifluoromethane	1.811	85	37566	17.93	ug/L	99
8) chloromethane	1.972	50	32917	18.72	ug/L	99
9) vinyl chloride	2.071	62	35779	18.05	ug/L	98
10) bromomethane	2.334	96	19214	19.15	ug/L	99
11) chloroethane	2.414	64	21892	19.32	ug/L	95
12) trichlorofluoromethane	2.610	101	47658	18.38	ug/L	99
13) ethyl ether	2.796	74	17522	19.04	ug/L	97
14) acrolein	2.902	56	7244	19.86	ug/L	98
15) freon 113	2.976	151	25019	18.65	ug/L	93
16) 1,1-dichloroethene	2.989	96	23510	18.22	ug/L	97
17) acetone	2.998	58	16901	82.50	ug/L	91
18) acetonitrile	3.197	40	25979	189.95	ug/L	94
19) iodomethane	3.104	142	30965	16.47	ug/L	98
20) iso-butyl alcohol	4.683	43	23156	212.25	ug/L	100
21) carbon disulfide	3.172	76	65974	18.56	ug/L	98
22) methylene chloride	3.322	84	25765	18.84	ug/L	95
23) methyl acetate	3.210	74	7391	19.97	ug/L #	86
24) methyl tert butyl ether	3.499	73	78664	18.60	ug/L	98
25) trans-1,2-dichloroethene	3.515	96	25713	18.32	ug/L	93
26) hexane	3.695	57	36819	18.29	ug/L	97
27) di-isopropyl ether	3.807	45	80192	18.46	ug/L	98
28) ethyl tert-butyl ether	4.057	59	83890	18.49	ug/L	97
29) 2-butanone	4.183	72	21540	77.75	ug/L	98
30) 1,1-dichloroethane	3.817	63	43752	18.55	ug/L	99
31) chloroprene	3.871	53	39464	19.15	ug/L	96
32) acrylonitrile	3.473	53	12711	18.60	ug/L	96
33) vinyl acetate	3.788	86	6494	17.44	ug/L #	84
34) ethyl acetate	4.189	45	5769	17.05	ug/L #	79
35) 2,2-dichloropropane	4.224	77	39385	18.87	ug/L	94
36) cis-1,2-dichloroethene	4.211	96	28732	18.66	ug/L	95
37) propionitrile	4.231	54	59404	189.83	ug/L	96
38) methyl acrylate	4.234	85	6196	18.04	ug/L #	79
39) bromochloromethane	4.378	128	15464	18.99	ug/L	98
40) tetrahydrofuran	4.397	72	6465	19.59	ug/L	95
41) chloroform	4.433	83	46608	18.90	ug/L	99
43) methacrylonitrile	4.340	67	14706	18.67	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212463.D
Acq On : 29 Jul 2021 2:16 pm
Operator : PrashanS
Sample : IC9178-20
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 08:50:55 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	4.584	97	42732	18.34	ug/L		97
45) cyclohexane	4.645	84	37952	18.26	ug/L		97
46) 1,1-dichloropropene	4.689	75	34955	18.46	ug/L		97
47) carbon tetrachloride	4.699	117	39225	18.42	ug/L		94
48) isopropyl acetate	4.802	87	8543	18.49	ug/L	#	92
49) tert amyl alcohol	4.779	55	11319	101.04	ug/L		94
52) tert-amyl methyl ether	4.898	73	87048	19.08	ug/L		97
53) 2,2,4-trimethylpentane	4.901	57	70140	18.50	ug/L		97
54) n-butyl alcohol	5.164	56	82038	932.85	ug/L		99
55) benzene	4.840	78	99481	18.35	ug/L		99
56) heptane	5.010	57	14686	18.20	ug/L		88
57) 1,2-dichloroethane	4.863	62	35986	19.44	ug/L		96
58) trichloroethene	5.315	95	27885	18.77	ug/L		92
59) ethyl acrylate	5.325	55	44539	18.85	ug/L		98
61) 2-chloroethyl vinyl ether	5.893	63	99660	92.48	ug/L		99
62) methyl methacrylate	5.511	100	10306	17.92	ug/L		95
63) 1,2-dichloropropane	5.514	63	24676	18.58	ug/L		100
64) methylcyclohexane	5.511	83	45911	18.02	ug/L		97
65) dibromomethane	5.582	93	17063	18.73	ug/L		99
66) bromodichloromethane	5.704	83	34945	18.34	ug/L		99
67) cis-1,3-dichloropropene	6.047	75	43533	18.63	ug/L		99
68) epichlorohydrin	5.951	57	23313	96.69	ug/L		97
69) 4-methyl-2-pentanone	6.143	58	61253	75.47	ug/L		91
70) 3-methyl-1-butanol	6.156	70	32402	360.93	ug/L		98
73) toluene	6.336	92	66148	18.85	ug/L		95
74) trans-1,3-dichloropropene	6.499	75	40009	18.91	ug/L		96
75) ethyl methacrylate	6.515	69	40556	18.64	ug/L		98
76) 1,1,2-trichloroethane	6.676	83	20624	18.95	ug/L		98
77) 2-hexanone	6.836	58	64365	75.55	ug/L		94
78) tetrachloroethene	6.779	166	34031	18.96	ug/L		96
79) 1,3-dichloropropane	6.820	76	41869	19.13	ug/L		99
80) butyl acetate	6.916	56	24193	19.24	ug/L		97
81) dibromochloromethane	7.013	129	31407	19.00	ug/L		99
82) 1,2-dibromoethane	7.135	107	28907	19.13	ug/L		96
83) n-butyl ether	7.600	57	105834	18.66	ug/L		98
84) chlorobenzene	7.568	112	76469	18.65	ug/L		98
85) 1,1,1,2-tetrachloroethane	7.632	131	29216	18.96	ug/L		97
86) ethylbenzene	7.638	91	126852	19.04	ug/L		97
87) m,p-xylene	7.754	106	102111	37.92	ug/L		93
88) o-xylene	8.117	106	50076	18.84	ug/L		95
89) butyl acrylate	8.020	55	57670	18.73	ug/L		99
90) n-amyl acetate	8.226	70	25015	19.04	ug/L		95
91) styrene	8.129	104	86015	18.94	ug/L		96
92) bromoform	8.312	173	25537	19.09	ug/L		96
93) isopropylbenzene	8.450	105	128010	18.64	ug/L		99
94) cis-1,4-dichloro-2-butene	8.498	88	14215	19.05	ug/L		96
97) bromobenzene	8.774	156	35887	19.03	ug/L		94
98) 1,1,2,2-tetrachloroethane	8.733	83	36903	18.52	ug/L		98
99) trans-1,4-dichloro-2-b...	8.771	53	10416	18.48	ug/L		97
100) 1,2,3-trichloropropane	8.797	110	12969	20.15	ug/L		97
101) n-propylbenzene	8.845	91	140696	18.91	ug/L		96
102) 2-chlorotoluene	8.948	126	30875	18.84	ug/L		98
103) 4-chlorotoluene	9.063	126	31533	18.84	ug/L		97
104) 1,3,5-trimethylbenzene	9.015	105	100770	18.93	ug/L		96
105) tert-butylbenzene	9.326	119	90086	18.70	ug/L		99
106) 1,2,4-trimethylbenzene	9.384	105	102844	18.54	ug/L		99
107) sec-butylbenzene	9.545	105	123094	18.58	ug/L		100
108) 1,3-dichlorobenzene	9.676	146	62285	18.55	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212463.D
Acq On : 29 Jul 2021 2:16 pm
Operator : PrashanS
Sample : IC9178-20
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 08:50:55 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

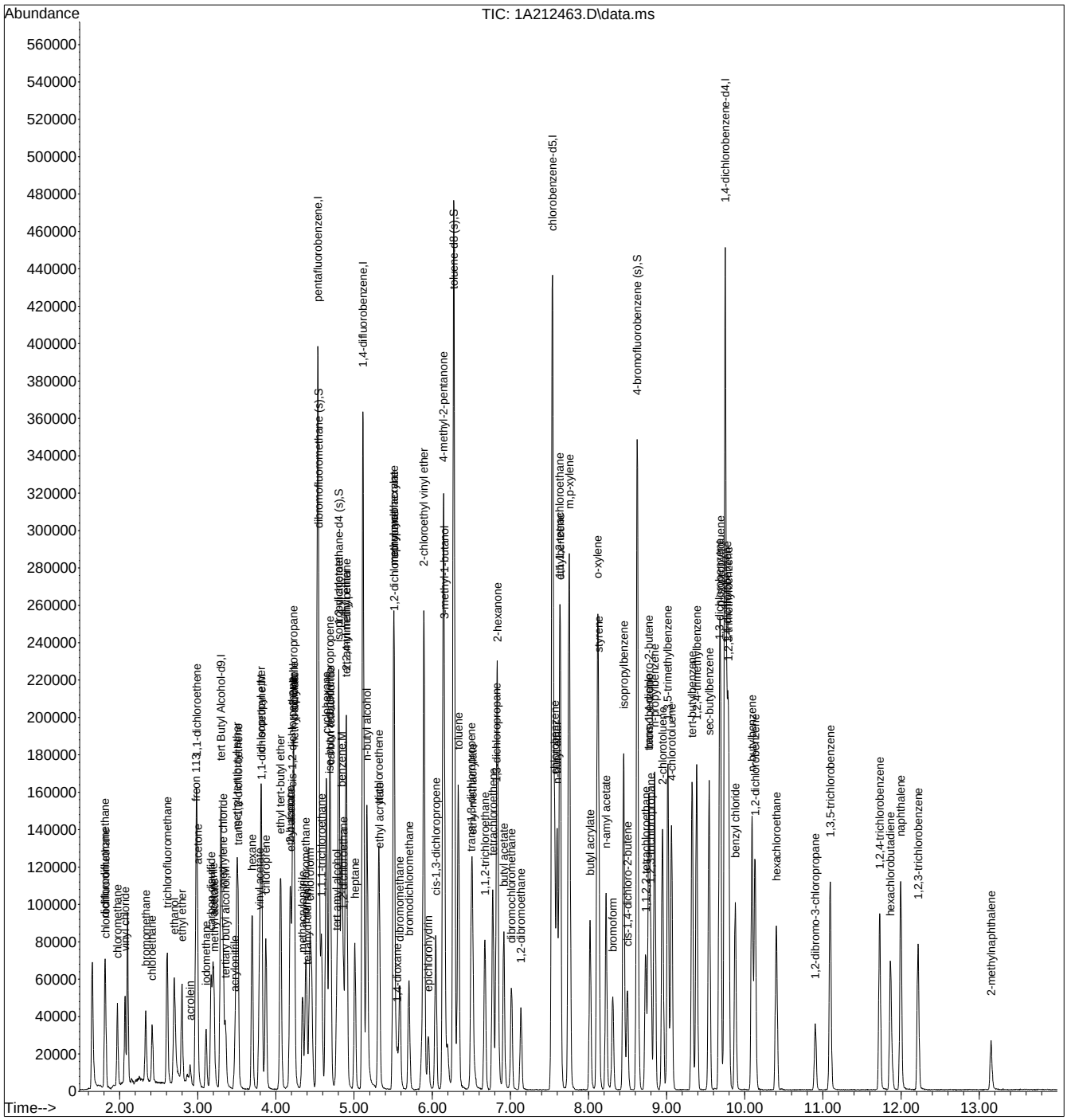
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	9.689	119	109751	18.81	ug/L	99
110) 1,2,3-trimethylbenzene	9.792	105	103358	18.90	ug/L	95
111) 1,4-dichlorobenzene	9.772	146	62872	18.84	ug/L	99
112) 1,2-dichlorobenzene	10.132	146	58890	18.68	ug/L	99
113) n-butylbenzene	10.093	92	47161	18.13	ug/L	96
114) 1,2-dibromo-3-chloropr...	10.902	157	12028	18.97	ug/L	94
115) 1,3,5-trichlorobenzene	11.094	180	41750	18.34	ug/L	97
116) 1,2,4-trichlorobenzene	11.727	180	34355	18.07	ug/L	98
117) hexachlorobutadiene	11.865	225	14945	19.05	ug/L	97
118) naphthalene	11.996	128	101144	18.43	ug/L	98
119) 1,2,3-trichlorobenzene	12.218	180	29036	18.18	ug/L	98
120) hexachloroethane	10.405	119	18920	18.58	ug/L	96
121) benzyl chloride	9.878	91	76852	18.94	ug/L	99
122) 2-methylnaphthalene	13.151	142	15962	8.19	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212463.D
Acq On : 29 Jul 2021 2:16 pm
Operator : PrashanS
Sample : IC9178-20
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 30 08:50:55 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212464.D
Acq On : 29 Jul 2021 2:41 pm
Operator : PrashanS
Sample : ICC9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 08:51:02 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.297	65	143497	500.00	ug/L	0.00
5) pentafluorobenzene	4.533	168	192502	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	273222	50.00	ug/L	0.00
71) chlorobenzene-d5	7.539	117	258410	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.750	152	130284	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	79419	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	86207	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
72) toluene-d8 (s)	6.275	98	308926	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
96) 4-bromofluorobenzene (s)	8.621	95	114322	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.553	88	39390	1250.00	ug/L	100
3) ethanol	2.700	45	170242	5000.00	ug/L	100
4) tertiary butyl alcohol	3.355	59	81830	250.00	ug/L	100
6) chlorodifluoromethane	1.821	51	70154	50.00	ug/L	100
7) dichlorodifluoromethane	1.808	85	101949	50.00	ug/L	100
8) chloromethane	1.972	50	85555	50.00	ug/L	100
9) vinyl chloride	2.068	62	96450	50.00	ug/L	100
10) bromomethane	2.328	96	48825	50.00	ug/L	100
11) chloroethane	2.415	64	55135	50.00	ug/L	100
12) trichlorofluoromethane	2.607	101	126157	50.00	ug/L	100
13) ethyl ether	2.797	74	44790	50.00	ug/L	100
14) acrolein	2.902	56	17747	50.00	ug/L	100
15) freon 113	2.976	151	65268	50.00	ug/L	100
16) 1,1-dichloroethene	2.983	96	62807	50.00	ug/L	100
17) acetone	2.996	58	39874	200.00	ug/L	100
18) acetonitrile	3.191	40	66555	500.00	ug/L	100
19) iodomethane	3.105	142	91491	50.00	ug/L	100
20) iso-butyl alcohol	4.680	43	53090	500.00	ug/L	100
21) carbon disulfide	3.169	76	172992	50.00	ug/L	100
22) methylene chloride	3.323	84	66535	50.00	ug/L	100
23) methyl acetate	3.207	74	18013	50.00	ug/L	100
24) methyl tert butyl ether	3.496	73	205761	50.00	ug/L	100
25) trans-1,2-dichloroethene	3.512	96	68308	50.00	ug/L	100
26) hexane	3.695	57	97958	50.00	ug/L	100
27) di-isopropyl ether	3.807	45	211418	50.00	ug/L	100
28) ethyl tert-butyl ether	4.058	59	220735	50.00	ug/L	100
29) 2-butanone	4.180	72	53926	200.00	ug/L	100
30) 1,1-dichloroethane	3.817	63	114772	50.00	ug/L	100
31) chloroprene	3.872	53	100291	50.00	ug/L	100
32) acrylonitrile	3.474	53	33249	50.00	ug/L	100
33) vinyl acetate	3.782	86	18117	50.00	ug/L	100
34) ethyl acetate	4.186	45	16467	50.00	ug/L	100
35) 2,2-dichloropropane	4.221	77	101560	50.00	ug/L	100
36) cis-1,2-dichloroethene	4.212	96	74913	50.00	ug/L	100
37) propionitrile	4.231	54	152275	500.00	ug/L	100
38) methyl acrylate	4.237	85	16709	50.00	ug/L	100
39) bromochloromethane	4.382	128	39624	50.00	ug/L	100
40) tetrahydrofuran	4.391	72	16062	50.00	ug/L	100
41) chloroform	4.433	83	119985	50.00	ug/L	100
43) methacrylonitrile	4.340	67	38338	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212464.D
Acq On : 29 Jul 2021 2:41 pm
Operator : PrashanS
Sample : ICC9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 08:51:02 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,1,1-trichloroethane	4.581	97	113380	50.00	ug/L	100
45) cyclohexane	4.642	84	101116	50.00	ug/L	100
46) 1,1-dichloropropene	4.690	75	92119	50.00	ug/L	100
47) carbon tetrachloride	4.696	117	103604	50.00	ug/L	100
48) isopropyl acetate	4.802	87	22484	50.00	ug/L	100
49) tert amyl alcohol	4.780	55	27257	250.00	ug/L	100
52) tert-amyl methyl ether	4.895	73	224079	50.00	ug/L	100
53) 2,2,4-trimethylpentane	4.902	57	186248	50.00	ug/L	100
54) n-butyl alcohol	5.165	56	216024	2500.17	ug/L	100
55) benzene	4.841	78	266372	50.00	ug/L	100
56) heptane	5.008	57	39653	50.00	ug/L	100
57) 1,2-dichloroethane	4.863	62	90958	50.00	ug/L	100
58) trichloroethene	5.312	95	72984	50.00	ug/L	100
59) ethyl acrylate	5.322	55	116055	50.00	ug/L	100
61) 2-chloroethyl vinyl ether	5.893	63	264704	250.02	ug/L	100
62) methyl methacrylate	5.508	100	28252	50.00	ug/L	100
63) 1,2-dichloropropane	5.515	63	65239	50.00	ug/L	100
64) methylcyclohexane	5.508	83	125139	50.00	ug/L	100
65) dibromomethane	5.585	93	44745	50.00	ug/L	100
66) bromodichloromethane	5.701	83	93633	50.00	ug/L	100
67) cis-1,3-dichloropropene	6.044	75	114776	50.00	ug/L	100
68) epichlorohydrin	5.951	57	59227	250.02	ug/L	100
69) 4-methyl-2-pentanone	6.140	58	159489	200.01	ug/L	100
70) 3-methyl-1-butanol	6.153	70	88208	1000.07	ug/L	100
73) toluene	6.333	92	176836	50.00	ug/L	100
74) trans-1,3-dichloropropene	6.500	75	106589	50.00	ug/L	100
75) ethyl methacrylate	6.516	69	109622	50.00	ug/L	100
76) 1,1,2-trichloroethane	6.673	83	54853	50.00	ug/L	100
77) 2-hexanone	6.837	58	171728	200.00	ug/L	100
78) tetrachloroethene	6.776	166	90420	50.00	ug/L	100
79) 1,3-dichloropropane	6.821	76	110302	50.00	ug/L	100
80) butyl acetate	6.917	56	63376	50.00	ug/L	100
81) dibromochloromethane	7.013	129	83279	50.00	ug/L	100
82) 1,2-dibromoethane	7.135	107	76134	50.00	ug/L	100
83) n-butyl ether	7.597	57	285833	50.00	ug/L	100
84) chlorobenzene	7.565	112	206561	50.00	ug/L	100
85) 1,1,1,2-tetrachloroethane	7.632	131	77664	50.00	ug/L	100
86) ethylbenzene	7.636	91	335750	50.00	ug/L	100
87) m,p-xylene	7.751	106	271400	100.00	ug/L	100
88) o-xylene	8.114	106	133950	50.00	ug/L	100
89) butyl acrylate	8.021	55	155142	50.00	ug/L	100
90) n-amyl acetate	8.223	70	66189	50.00	ug/L	100
91) styrene	8.127	104	228819	50.00	ug/L	100
92) bromoform	8.309	173	67410	50.00	ug/L	100
93) isopropylbenzene	8.447	105	346058	50.00	ug/L	100
94) cis-1,4-dichloro-2-butene	8.496	88	37592	50.00	ug/L	100
97) bromobenzene	8.775	156	95317	50.00	ug/L	100
98) 1,1,2,2-tetrachloroethane	8.733	83	100704	50.00	ug/L	100
99) trans-1,4-dichloro-2-b...	8.768	53	28489	50.00	ug/L	100
100) 1,2,3-trichloropropane	8.800	110	32521	50.00	ug/L	100
101) n-propylbenzene	8.849	91	376053	50.00	ug/L	100
102) 2-chlorotoluene	8.948	126	82830	50.00	ug/L	100
103) 4-chlorotoluene	9.064	126	84571	50.00	ug/L	100
104) 1,3,5-trimethylbenzene	9.015	105	269038	50.00	ug/L	100
105) tert-butylbenzene	9.327	119	243478	50.00	ug/L	100
106) 1,2,4-trimethylbenzene	9.381	105	280268	50.00	ug/L	100
107) sec-butylbenzene	9.545	105	334904	50.00	ug/L	100
108) 1,3-dichlorobenzene	9.676	146	169647	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212464.D
Acq On : 29 Jul 2021 2:41 pm
Operator : PrashanS
Sample : ICC9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 08:51:02 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

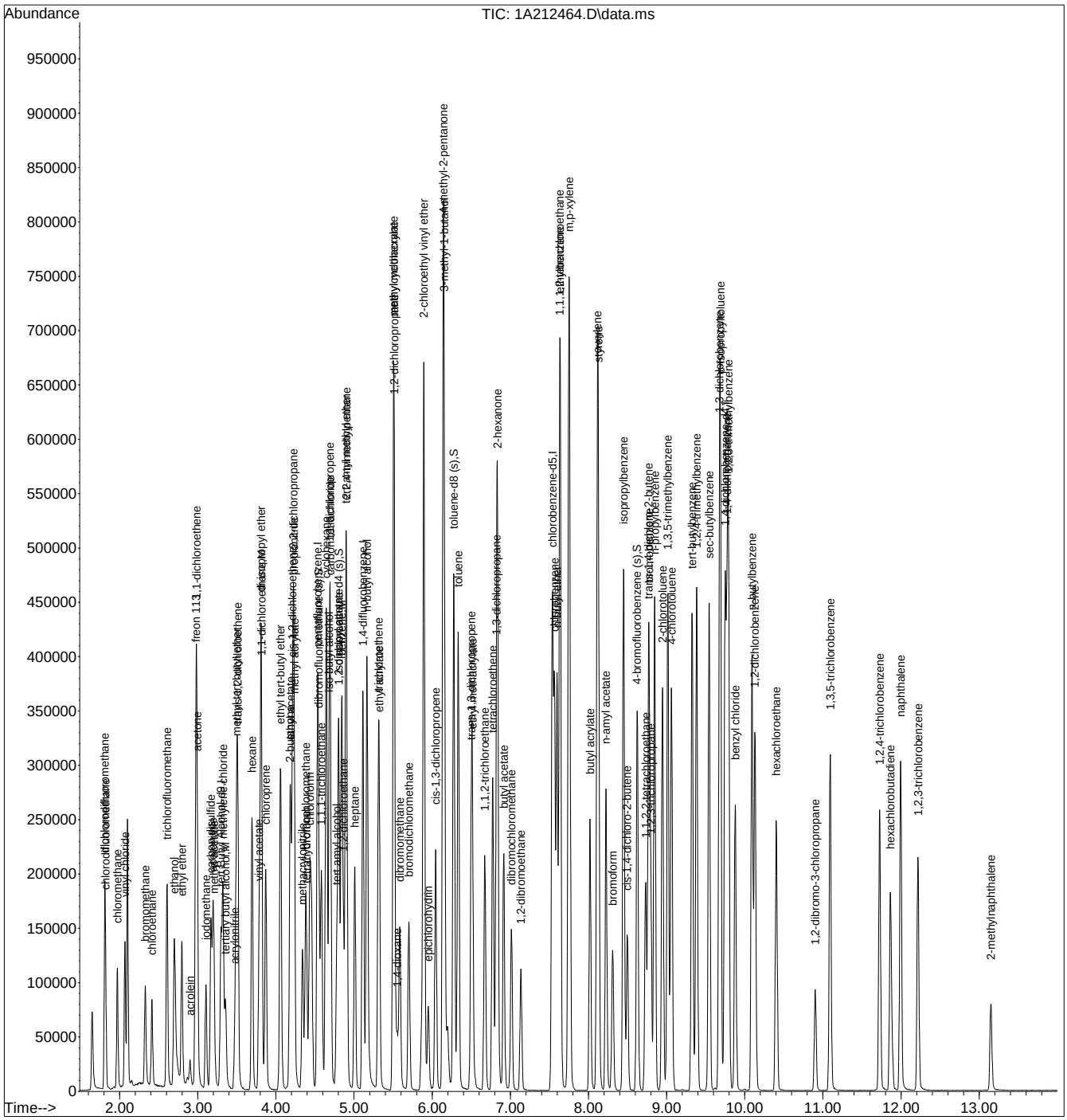
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	9.689	119	294873	50.00	ug/L	100
110) 1,2,3-trimethylbenzene	9.792	105	276358	50.00	ug/L	100
111) 1,4-dichlorobenzene	9.773	146	168620	50.00	ug/L	100
112) 1,2-dichlorobenzene	10.129	146	159344	50.00	ug/L	100
113) n-butylbenzene	10.094	92	131471	50.00	ug/L	100
114) 1,2-dibromo-3-chloropr...	10.902	157	32046	50.00	ug/L	100
115) 1,3,5-trichlorobenzene	11.095	180	115027	50.00	ug/L	100
116) 1,2,4-trichlorobenzene	11.727	180	96059	50.00	ug/L	100
117) hexachlorobutadiene	11.865	225	39649	50.00	ug/L	100
118) naphthalene	11.997	128	277292	50.00	ug/L	100
119) 1,2,3-trichlorobenzene	12.218	180	80725	50.00	ug/L	100
120) hexachloroethane	10.402	119	51464	50.00	ug/L	100
121) benzyl chloride	9.879	91	205077	50.00	ug/L	100
122) 2-methylnaphthalene	13.149	142	49262	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212464.D
Acq On : 29 Jul 2021 2:41 pm
Operator : PrashanS
Sample : ICC9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 08:51:02 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212465.D
Acq On : 29 Jul 2021 3:06 pm
Operator : PrashanS
Sample : IC9178-100
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 08:51:10 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.297	65	147464	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	191708	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	273458	50.00	ug/L	0.00
71) chlorobenzene-d5	7.539	117	266380	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.750	152	132218	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	79642	50.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	86307	50.02	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.04%			
72) toluene-d8 (s)	6.278	98	316857	49.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%			
96) 4-bromofluorobenzene (s)	8.624	95	116939	50.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.80%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.553	88	82164	2537.25	ug/L	99
3) ethanol	2.703	45	310966	8887.36	ug/L	96
4) tertiary butyl alcohol	3.355	59	162711	483.73	ug/L	94
6) chlorodifluoromethane	1.818	51	145243	103.95	ug/L	99
7) dichlorodifluoromethane	1.808	85	212057	104.43	ug/L	98
8) chloromethane	1.968	50	178013	104.47	ug/L	98
9) vinyl chloride	2.065	62	197220	102.66	ug/L	99
10) bromomethane	2.318	96	97665	100.43	ug/L	99
11) chloroethane	2.408	64	112633	102.57	ug/L	95
12) trichlorofluoromethane	2.604	101	254564	101.31	ug/L	98
13) ethyl ether	2.793	74	88437	99.13	ug/L	93
14) acrolein	2.899	56	35955	101.72	ug/L	98
15) freon 113	2.973	151	135317	104.09	ug/L	97
16) 1,1-dichloroethene	2.979	96	132598	106.00	ug/L	99
17) acetone	2.992	58	82605	416.05	ug/L	93
18) acetonitrile	3.194	40	134997	1018.38	ug/L	100
19) iodomethane	3.101	142	184701	101.36	ug/L	98
20) iso-butyl alcohol	4.683	43	112618	1065.03	ug/L	93
21) carbon disulfide	3.165	76	352242	102.23	ug/L	98
22) methylene chloride	3.319	84	134694	101.64	ug/L	99
23) methyl acetate	3.204	74	37295	103.95	ug/L	93
24) methyl tert butyl ether	3.496	73	418740	102.18	ug/L	99
25) trans-1,2-dichloroethene	3.512	96	137531	101.09	ug/L	96
26) hexane	3.695	57	203179	104.14	ug/L	99
27) di-isopropyl ether	3.807	45	435198	103.35	ug/L	98
28) ethyl tert-butyl ether	4.057	59	451756	102.75	ug/L	97
29) 2-butanone	4.183	72	110803	412.65	ug/L #	88
30) 1,1-dichloroethane	3.814	63	232322	101.63	ug/L	98
31) chloroprene	3.868	53	203573	101.91	ug/L	99
32) acrylonitrile	3.470	53	70220	106.03	ug/L	95
33) vinyl acetate	3.781	86	36280	100.54	ug/L	98
34) ethyl acetate	4.186	45	30386	92.65	ug/L	91
35) 2,2-dichloropropane	4.221	77	202099	99.91	ug/L	98
36) cis-1,2-dichloroethene	4.211	96	152571	102.25	ug/L	98
37) propionitrile	4.231	54	311846	1028.20	ug/L	95
38) methyl acrylate	4.234	85	33020	99.22	ug/L #	81
39) bromochloromethane	4.378	128	78759	99.79	ug/L	96
40) tetrahydrofuran	4.394	72	32572	101.81	ug/L	96
41) chloroform	4.433	83	243416	101.86	ug/L	99
43) methacrylonitrile	4.340	67	79540	104.16	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212465.D
Acq On : 29 Jul 2021 3:06 pm
Operator : PrashanS
Sample : IC9178-100
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 08:51:10 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 1,1,1-trichloroethane	4.580	97	229499	101.63	ug/L	99
45) cyclohexane	4.641	84	209488	104.02	ug/L	98
46) 1,1-dichloropropene	4.686	75	188831	102.92	ug/L	97
47) carbon tetrachloride	4.696	117	209179	101.37	ug/L	99
48) isopropyl acetate	4.802	87	46999	104.95	ug/L	98
49) tert amyl alcohol	4.783	55	55137	507.81	ug/L	94
52) tert-amyl methyl ether	4.898	73	456707	101.83	ug/L	98
53) 2,2,4-trimethylpentane	4.901	57	384826	103.23	ug/L	99
54) n-butyl alcohol	5.168	56	444577	5140.91	ug/L	99
55) benzene	4.840	78	543795	101.99	ug/L	99
56) heptane	5.010	57	82853	104.39	ug/L	94
57) 1,2-dichloroethane	4.860	62	181409	99.64	ug/L	97
58) trichloroethene	5.312	95	150518	103.04	ug/L	97
59) ethyl acrylate	5.325	55	238961	102.87	ug/L	98
61) 2-chloroethyl vinyl ether	5.893	63	551633	520.58	ug/L	99
62) methyl methacrylate	5.508	100	58094	102.73	ug/L	93
63) 1,2-dichloropropane	5.514	63	135623	103.86	ug/L	98
64) methylcyclohexane	5.508	83	261082	104.23	ug/L	99
65) dibromomethane	5.585	93	90949	101.55	ug/L	97
66) bromodichloromethane	5.704	83	193585	103.29	ug/L	97
67) cis-1,3-dichloropropene	6.044	75	237075	103.20	ug/L	98
68) epichlorohydrin	5.951	57	123683	521.66	ug/L	96
69) 4-methyl-2-pentanone	6.143	58	331417	415.27	ug/L	99
70) 3-methyl-1-butanol	6.156	70	178707	2024.37	ug/L	97
73) toluene	6.333	92	367861	100.90	ug/L	99
74) trans-1,3-dichloropropene	6.499	75	224248	102.05	ug/L	97
75) ethyl methacrylate	6.515	69	230857	102.15	ug/L	96
76) 1,1,2-trichloroethane	6.673	83	112673	99.63	ug/L	94
77) 2-hexanone	6.836	58	344849	389.61	ug/L	98
78) tetrachloroethene	6.775	166	188116	100.91	ug/L	98
79) 1,3-dichloropropane	6.820	76	225621	99.21	ug/L	99
80) butyl acetate	6.917	56	132322	101.27	ug/L	90
81) dibromochloromethane	7.013	129	170497	99.30	ug/L	97
82) 1,2-dibromoethane	7.135	107	157385	100.27	ug/L	98
83) n-butyl ether	7.597	57	593403	100.70	ug/L	100
84) chlorobenzene	7.565	112	429544	100.86	ug/L	99
85) 1,1,1,2-tetrachloroethane	7.632	131	158151	98.77	ug/L	98
86) ethylbenzene	7.635	91	685796	99.07	ug/L	99
87) m,p-xylene	7.751	106	558368	199.58	ug/L	97
88) o-xylene	8.113	106	278316	100.78	ug/L	99
89) butyl acrylate	8.020	55	329172	102.91	ug/L	99
90) n-amyl acetate	8.223	70	139478	102.21	ug/L	99
91) styrene	8.126	104	477631	101.25	ug/L	99
92) bromoform	8.309	173	141950	102.14	ug/L	99
93) isopropylbenzene	8.450	105	718398	100.69	ug/L	99
94) cis-1,4-dichloro-2-butene	8.499	88	79369	102.41	ug/L	96
97) bromobenzene	8.775	156	197232	101.95	ug/L	98
98) 1,1,2,2-tetrachloroethane	8.733	83	203352	99.49	ug/L	97
99) trans-1,4-dichloro-2-b...	8.768	53	60055	103.86	ug/L	99
100) 1,2,3-trichloropropane	8.797	110	67669	102.52	ug/L	97
101) n-propylbenzene	8.848	91	775484	101.60	ug/L	99
102) 2-chlorotoluene	8.948	126	170674	101.52	ug/L	98
103) 4-chlorotoluene	9.063	126	173118	100.85	ug/L	94
104) 1,3,5-trimethylbenzene	9.015	105	557555	102.10	ug/L	98
105) tert-butylbenzene	9.326	119	508680	102.93	ug/L	98
106) 1,2,4-trimethylbenzene	9.384	105	572443	100.63	ug/L	96
107) sec-butylbenzene	9.545	105	698115	102.70	ug/L	99
108) 1,3-dichlorobenzene	9.676	146	355567	103.26	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212465.D
Acq On : 29 Jul 2021 3:06 pm
Operator : PrashanS
Sample : IC9178-100
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 08:51:10 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

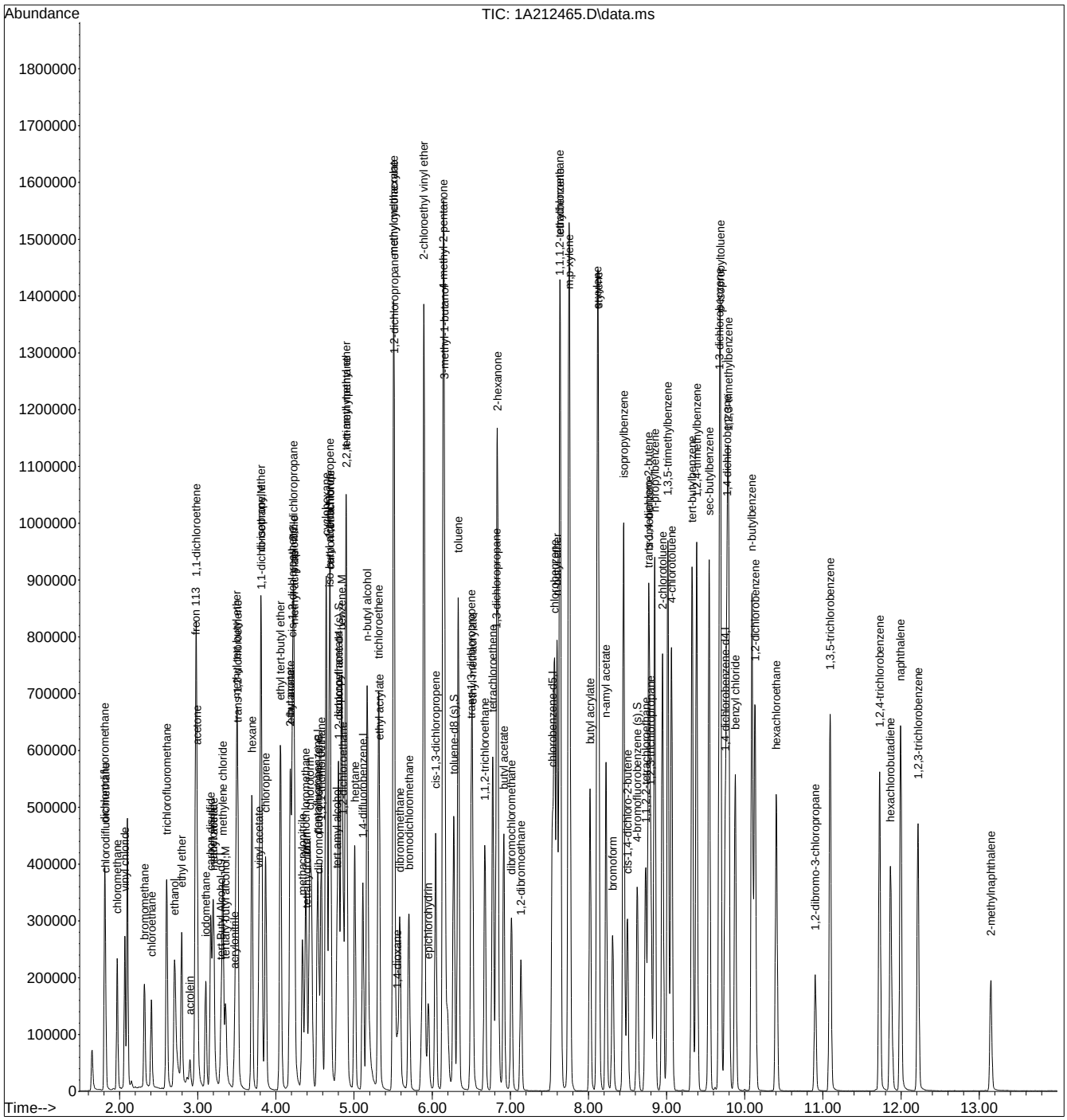
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	9.689	119	610087	101.94	ug/L	100
110) 1,2,3-trimethylbenzene	9.792	105	569710	101.57	ug/L	98
111) 1,4-dichlorobenzene	9.773	146	349231	102.04	ug/L	99
112) 1,2-dichlorobenzene	10.132	146	333360	103.07	ug/L	100
113) n-butylbenzene	10.090	92	281233	105.39	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.902	157	70177	107.89	ug/L	97
115) 1,3,5-trichlorobenzene	11.091	180	249643	106.93	ug/L	98
116) 1,2,4-trichlorobenzene	11.727	180	208093	106.73	ug/L	99
117) hexachlorobutadiene	11.865	225	85319	106.02	ug/L	99
118) naphthalene	11.993	128	596655	106.01	ug/L	100
119) 1,2,3-trichlorobenzene	12.218	180	175126	106.88	ug/L	98
120) hexachloroethane	10.401	119	110276	105.57	ug/L	97
121) benzyl chloride	9.878	91	430335	103.39	ug/L	98
122) 2-methylnaphthalene	13.148	142	118257	59.14	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212465.D
Acq On : 29 Jul 2021 3:06 pm
Operator : PrashanS
Sample : IC9178-100
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 30 08:51:10 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212466.D
Acq On : 29 Jul 2021 3:31 pm
Operator : PrashanS
Sample : IC9178-200
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 08:51:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.300	65	137770	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	189505	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	271589	50.00	ug/L	0.00
71) chlorobenzene-d5	7.539	117	265476	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	134106	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	77506	49.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	81384	47.49	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.98%			
72) toluene-d8 (s)	6.275	98	311352	49.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.10%			
96) 4-bromofluorobenzene (s)	8.624	95	117139	49.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.556	88	158669	5244.50	ug/L	99
3) ethanol	2.713	45	513764	15716.47	ug/L	98
4) tertiary butyl alcohol	3.361	59	302579	962.84	ug/L	92
6) chlorodifluoromethane	1.821	51	280289	202.93	ug/L	98
7) dichlorodifluoromethane	1.808	85	406492	202.51	ug/L	99
8) chloromethane	1.968	50	346972	205.98	ug/L	97
9) vinyl chloride	2.065	62	372916	196.38	ug/L	99
10) bromomethane	2.305	96	155394	161.65	ug/L	100
11) chloroethane	2.398	64	199299	183.60	ug/L	96
12) trichlorofluoromethane	2.597	101	466859	187.96	ug/L	98
13) ethyl ether	2.793	74	169601	192.32	ug/L	95
14) acrolein	2.899	56	66687	190.85	ug/L	99
15) freon 113	2.970	151	256504	199.61	ug/L	97
16) 1,1-dichloroethene	2.979	96	248946	201.32	ug/L	98
17) acetone	2.995	58	154718	788.31	ug/L	88
18) acetonitrile	3.194	40	258486	1972.61	ug/L	98
19) iodomethane	3.101	142	363565	201.83	ug/L	98
20) iso-butyl alcohol	4.693	43	211710	2025.41	ug/L	91
21) carbon disulfide	3.162	76	697347	204.74	ug/L	98
22) methylene chloride	3.319	84	263353	201.04	ug/L	99
23) methyl acetate	3.204	74	72234	203.68	ug/L	99
24) methyl tert butyl ether	3.496	73	810648	200.10	ug/L	98
25) trans-1,2-dichloroethene	3.509	96	268444	199.60	ug/L	96
26) hexane	3.692	57	400313	207.56	ug/L	99
27) di-isopropyl ether	3.807	45	828457	199.03	ug/L	96
28) ethyl tert-butyl ether	4.057	59	880365	202.57	ug/L	97
29) 2-butanone	4.183	72	214928	809.73	ug/L #	89
30) 1,1-dichloroethane	3.814	63	444312	196.62	ug/L	99
31) chloroprene	3.865	53	386603	195.79	ug/L	99
32) acrylonitrile	3.473	53	136734	208.87	ug/L	98
33) vinyl acetate	3.785	86	70458	197.53	ug/L #	92
34) ethyl acetate	4.189	45	62333	192.26	ug/L #	44
35) 2,2-dichloropropane	4.221	77	381430	190.76	ug/L	99
36) cis-1,2-dichloroethene	4.208	96	296819	201.24	ug/L	98
37) propionitrile	4.231	54	591696	1973.58	ug/L	90
38) methyl acrylate	4.234	85	64154	195.01	ug/L #	84
39) bromochloromethane	4.378	128	149567	191.72	ug/L	96
40) tetrahydrofuran	4.394	72	62474	197.55	ug/L	98
41) chloroform	4.433	83	469484	198.74	ug/L	98
43) methacrylonitrile	4.340	67	156691	207.59	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212466.D
Acq On : 29 Jul 2021 3:31 pm
Operator : PrashanS
Sample : IC9178-200
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 08:51:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	4.581	97	446504	200.02	ug/L		98
45) cyclohexane	4.641	84	405843	203.86	ug/L		98
46) 1,1-dichloropropene	4.686	75	367839	202.81	ug/L		96
47) carbon tetrachloride	4.696	117	395151	193.72	ug/L		98
48) isopropyl acetate	4.805	87	90347	204.09	ug/L	#	88
49) tert amyl alcohol	4.786	55	101943	949.80	ug/L	#	88
52) tert-amyl methyl ether	4.898	73	897652	201.52	ug/L		99
53) 2,2,4-trimethylpentane	4.898	57	756413	204.30	ug/L		98
54) n-butyl alcohol	5.174	56	857039	9978.66	ug/L		98
55) benzene	4.840	78	1055621	199.35	ug/L		99
56) heptane	5.007	57	162774	206.50	ug/L		97
57) 1,2-dichloroethane	4.863	62	343781	190.13	ug/L		98
58) trichloroethene	5.312	95	295896	203.95	ug/L		97
59) ethyl acrylate	5.325	55	468809	203.21	ug/L		98
61) 2-chloroethyl vinyl ether	5.893	63	1067037	1013.89	ug/L		100
62) methyl methacrylate	5.505	100	113753	202.54	ug/L	#	87
63) 1,2-dichloropropane	5.514	63	263169	202.92	ug/L		96
64) methylcyclohexane	5.505	83	510973	205.40	ug/L		99
65) dibromomethane	5.585	93	178379	200.54	ug/L		98
66) bromodichloromethane	5.700	83	379481	203.88	ug/L		99
67) cis-1,3-dichloropropene	6.044	75	469535	205.79	ug/L		97
68) epichlorohydrin	5.954	57	235298	999.25	ug/L		95
69) 4-methyl-2-pentanone	6.143	58	634030	799.91	ug/L		93
70) 3-methyl-1-butanol	6.159	70	337610	3850.71	ug/L		97
73) toluene	6.333	92	725633	199.71	ug/L		98
74) trans-1,3-dichloropropene	6.499	75	442708	202.14	ug/L		95
75) ethyl methacrylate	6.515	69	451070	200.26	ug/L		96
76) 1,1,2-trichloroethane	6.673	83	228184	202.46	ug/L		97
77) 2-hexanone	6.836	58	671234	760.93	ug/L		99
78) tetrachloroethene	6.775	166	373253	200.91	ug/L		98
79) 1,3-dichloropropane	6.820	76	440138	194.20	ug/L		100
80) butyl acetate	6.917	56	256348	196.86	ug/L		96
81) dibromochloromethane	7.016	129	341883	199.80	ug/L		99
82) 1,2-dibromoethane	7.135	107	315236	201.52	ug/L		99
83) n-butyl ether	7.597	57	1162626	197.96	ug/L		100
84) chlorobenzene	7.565	112	848929	200.02	ug/L		97
85) 1,1,1,2-tetrachloroethane	7.632	131	304108	190.57	ug/L		97
86) ethylbenzene	7.639	91	1323136	191.80	ug/L		99
87) m,p-xylene	7.754	106	1098669	394.04	ug/L		96
88) o-xylene	8.114	106	545996	198.38	ug/L		97
89) butyl acrylate	8.020	55	657930	206.40	ug/L		99
90) n-amyl acetate	8.223	70	275854	202.84	ug/L		96
91) styrene	8.126	104	923276	196.38	ug/L		100
92) bromoform	8.312	173	286586	206.91	ug/L		100
93) isopropylbenzene	8.450	105	1414718	198.96	ug/L		99
94) cis-1,4-dichloro-2-butene	8.499	88	157413	203.80	ug/L		97
97) bromobenzene	8.775	156	390727	199.12	ug/L		97
98) 1,1,2,2-tetrachloroethane	8.733	83	408923	197.25	ug/L		97
99) trans-1,4-dichloro-2-b...	8.768	53	116673	198.93	ug/L		99
100) 1,2,3-trichloropropane	8.797	110	129797	193.87	ug/L		98
101) n-propylbenzene	8.848	91	1520341	196.38	ug/L		100
102) 2-chlorotoluene	8.948	126	340473	199.67	ug/L		98
103) 4-chlorotoluene	9.063	126	344910	198.11	ug/L		95
104) 1,3,5-trimethylbenzene	9.015	105	1097136	198.09	ug/L		99
105) tert-butylbenzene	9.326	119	1011718	201.84	ug/L		100
106) 1,2,4-trimethylbenzene	9.384	105	1123298	194.69	ug/L		95
107) sec-butylbenzene	9.545	105	1401113	203.22	ug/L		99
108) 1,3-dichlorobenzene	9.676	146	707747	202.65	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212466.D
Acq On : 29 Jul 2021 3:31 pm
Operator : PrashanS
Sample : IC9178-200
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 08:51:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration

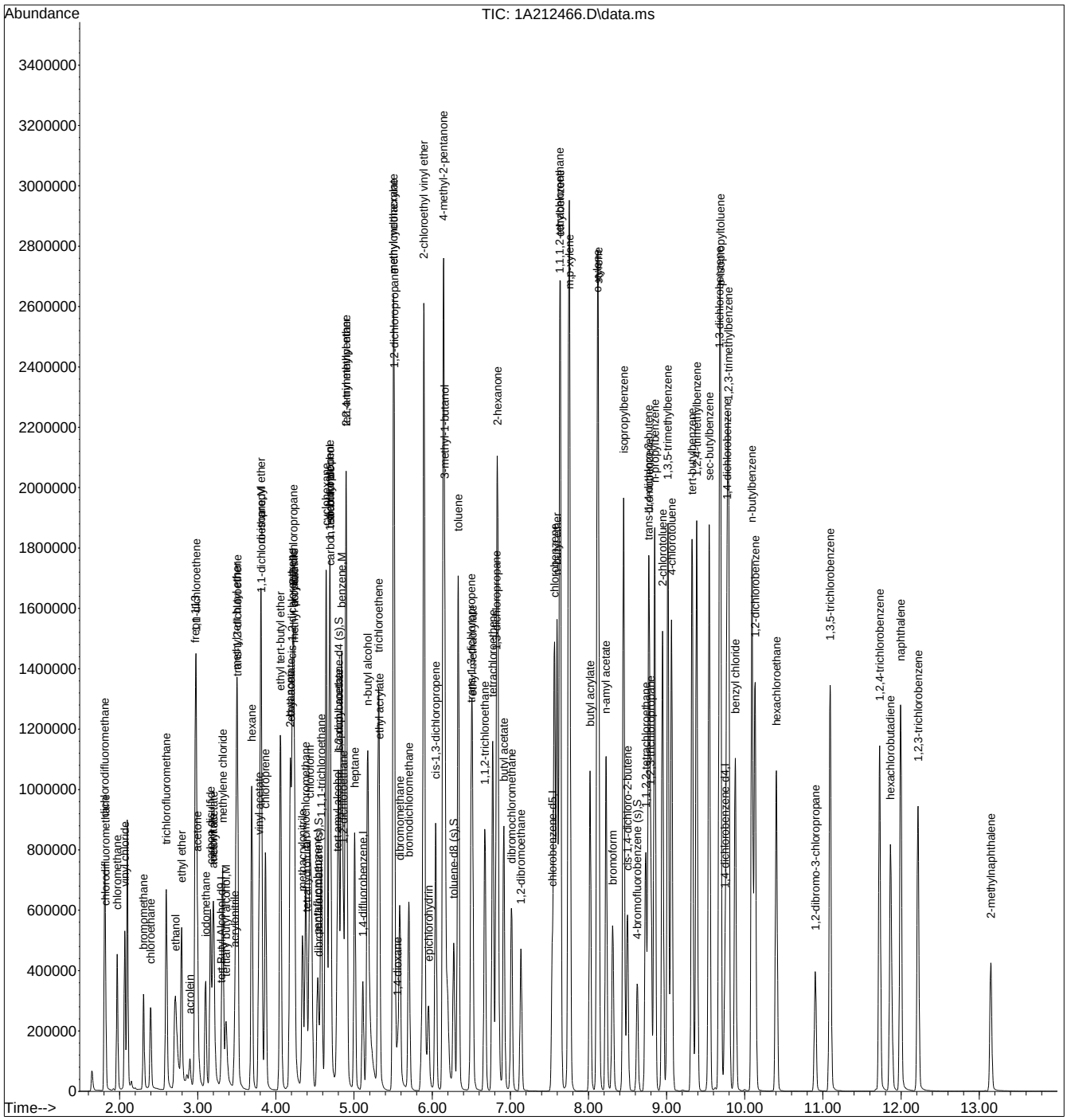
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) p-isopropyltoluene	9.689	119	1197238	197.22	ug/L	99
110) 1,2,3-trimethylbenzene	9.792	105	1118613	196.62	ug/L	99
111) 1,4-dichlorobenzene	9.773	146	703954	202.79	ug/L	99
112) 1,2-dichlorobenzene	10.132	146	658528	200.75	ug/L	100
113) n-butylbenzene	10.090	92	568034	209.87	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.905	157	139213	211.02	ug/L	98
115) 1,3,5-trichlorobenzene	11.091	180	508227	214.62	ug/L	96
116) 1,2,4-trichlorobenzene	11.727	180	426964	215.91	ug/L	99
117) hexachlorobutadiene	11.865	225	178632	218.85	ug/L	97
118) naphthalene	11.996	128	1198955	210.03	ug/L	100
119) 1,2,3-trichlorobenzene	12.218	180	360031	216.64	ug/L	100
120) hexachloroethane	10.405	119	225884	213.20	ug/L	97
121) benzyl chloride	9.878	91	861933	204.16	ug/L	99
122) 2-methylnaphthalene	13.148	142	263054	129.69	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212466.D
Acq On : 29 Jul 2021 3:31 pm
Operator : PrashanS
Sample : IC9178-200
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 30 08:51:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 08:42:28 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212469.D
Acq On : 29 Jul 2021 4:46 pm
Operator : PrashanS
Sample : ICV9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 30 10:58:06 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.297	65	142455	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	192957	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	273035	50.00	ug/L	0.00
71) chlorobenzene-d5	7.539	117	259674	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.747	152	127856	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.545	113	80300	51.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.28%			
51) 1,2-dichloroethane-d4 (s)	4.808	65	86760	49.86	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.72%			
72) toluene-d8 (s)	6.278	98	309742	48.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.00%			
96) 4-bromofluorobenzene (s)	8.624	95	115670	51.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.10%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.550	88	44308	1419.08	ug/L	96
3) ethanol	2.703	45	185166	5170.20	ug/L	100
4) tertiary butyl alcohol	3.355	59	85907	257.63	ug/L	96
7) dichlorodifluoromethane	1.808	85	88638	45.39	ug/L	97
8) chloromethane	1.972	50	83610	48.17	ug/L	98
9) vinyl chloride	2.068	62	93916	51.13	ug/L	98
10) bromomethane	2.328	96	58345	59.46	ug/L	95
11) chloroethane	2.414	64	55715	47.82	ug/L	97
12) trichlorofluoromethane	2.607	101	120541	49.73	ug/L	98
13) ethyl ether	2.796	74	48054	53.85	ug/L	96
14) acrolein	2.902	56	19433	54.38	ug/L	99
15) freon 113	2.976	151	58742	44.90	ug/L	95
16) 1,1-dichloroethene	2.986	96	63171	48.96	ug/L	98
17) acetone	2.995	58	44553	195.38	ug/L	95
19) iodomethane	3.104	142	86811	56.22	ug/L	95
20) iso-butyl alcohol	4.683	43	66738	573.22	ug/L	96
21) carbon disulfide	3.168	76	187938	53.14	ug/L	99
22) methylene chloride	3.323	84	66601	47.81	ug/L	97
23) methyl acetate	3.210	74	18180	47.87	ug/L	97
24) methyl tert butyl ether	3.496	73	213664	53.58	ug/L	99
25) trans-1,2-dichloroethene	3.512	96	68121	50.28	ug/L	99
26) hexane	3.695	57	93152	47.85	ug/L	99
27) di-isopropyl ether	3.807	45	202772	48.57	ug/L	96
28) ethyl tert-butyl ether	4.057	59	212087	49.57	ug/L	99
29) 2-butanone	4.183	72	58215	219.69	ug/L #	89
30) 1,1-dichloroethane	3.817	63	114784	51.08	ug/L	98
31) chloroprene	3.868	53	108483	55.28	ug/L	99
33) vinyl acetate	3.785	86	12059	33.60	ug/L #	89
34) ethyl acetate	4.189	45	15713	47.94	ug/L #	68
35) 2,2-dichloropropane	4.224	77	98092	46.51	ug/L	99
36) cis-1,2-dichloroethene	4.211	96	76983	52.26	ug/L	97
37) propionitrile	4.231	54	162398	529.10	ug/L	98
38) methyl acrylate	4.234	85	16293	50.86	ug/L #	87
39) bromochloromethane	4.378	128	39655	50.03	ug/L	99
40) tetrahydrofuran	4.394	72	16325	45.55	ug/L	96
41) chloroform	4.433	83	122596	48.33	ug/L	98
43) methacrylonitrile	4.340	67	39530	51.23	ug/L	99
44) 1,1,1-trichloroethane	4.580	97	113793	51.58	ug/L	99
45) cyclohexane	4.641	84	103088	51.83	ug/L	97
46) 1,1-dichloropropene	4.690	75	94003	51.04	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212469.D
Acq On : 29 Jul 2021 4:46 pm
Operator : PrashanS
Sample : ICV9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 30 10:58:06 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) carbon tetrachloride	4.699	117	104141	50.80	ug/L	98
48) isopropyl acetate	4.802	87	22365	49.25	ug/L	92
49) tert amyl alcohol	4.779	55	30492	262.76	ug/L	97
52) tert-amyl methyl ether	4.898	73	206396	45.80	ug/L	98
53) 2,2,4-trimethylpentane	4.901	57	185114	49.12	ug/L	100
54) n-butyl alcohol	5.164	56	234506	2710.94	ug/L	96
55) benzene	4.844	78	269887	49.75	ug/L	99
56) heptane	5.010	57	42805	54.66	ug/L	92
57) 1,2-dichloroethane	4.863	62	91460	47.33	ug/L	99
58) trichloroethene	5.312	95	78264	54.73	ug/L	96
59) ethyl acrylate	5.322	55	121096	52.80	ug/L	99
61) 2-chloroethyl vinyl ether	5.893	63	296555	289.82	ug/L	99
62) methyl methacrylate	5.508	100	28529	51.19	ug/L	93
63) 1,2-dichloropropane	5.514	63	66323	50.16	ug/L	99
64) methylcyclohexane	5.508	83	130141	54.01	ug/L	99
65) dibromomethane	5.588	93	44336	49.51	ug/L	97
66) bromodichloromethane	5.700	83	94818	50.05	ug/L	94
67) cis-1,3-dichloropropene	6.044	75	114121	50.48	ug/L	98
68) epichlorohydrin	5.947	57	65765	272.46	ug/L	97
69) 4-methyl-2-pentanone	6.140	58	164725	210.02	ug/L	98
70) 3-methyl-1-butanol	6.156	70	94455	1142.42	ug/L	95
73) toluene	6.332	92	180639	49.38	ug/L	97
74) trans-1,3-dichloropropene	6.499	75	110538	49.85	ug/L	99
75) ethyl methacrylate	6.515	69	112071	50.76	ug/L	99
76) 1,1,2-trichloroethane	6.676	83	55948	51.43	ug/L	96
77) 2-hexanone	6.836	58	175917	207.74	ug/L	100
79) 1,3-dichloropropane	6.820	76	110688	48.76	ug/L	98
80) butyl acetate	6.917	56	62742	49.29	ug/L	93
81) dibromochloromethane	7.013	129	87062	51.12	ug/L	100
82) 1,2-dibromoethane	7.135	107	78344	50.16	ug/L	99
83) n-butyl ether	7.597	57	291657	49.54	ug/L	99
84) chlorobenzene	7.565	112	210947	50.00	ug/L	100
85) 1,1,1,2-tetrachloroethane	7.632	131	78517	50.04	ug/L	97
86) ethylbenzene	7.639	91	341970	49.53	ug/L	99
87) m,p-xylene	7.754	106	274034	99.44	ug/L	96
88) o-xylene	8.113	106	134846	49.57	ug/L	98
89) butyl acrylate	8.020	55	163232	54.37	ug/L	99
90) n-amyl acetate	8.223	70	63457	47.94	ug/L	97
91) styrene	8.126	104	232463	50.60	ug/L	99
92) bromoform	8.309	173	68806	50.39	ug/L	99
93) isopropylbenzene	8.450	105	347622	49.98	ug/L	100
94) cis-1,4-dichloro-2-butene	8.498	88	40602	55.33	ug/L	95
97) bromobenzene	8.771	156	96906	52.09	ug/L	96
98) 1,1,2,2-tetrachloroethane	8.733	83	93008	47.59	ug/L	98
99) trans-1,4-dichloro-2-b...	8.768	53	28929	51.87	ug/L	95
100) 1,2,3-trichloropropane	8.797	110	32791	48.13	ug/L	94
101) n-propylbenzene	8.845	91	380631	49.90	ug/L	99
102) 2-chlorotoluene	8.948	126	83941	50.91	ug/L	100
103) 4-chlorotoluene	9.063	126	85451	51.58	ug/L	99
104) 1,3,5-trimethylbenzene	9.015	105	273812	50.48	ug/L	100
105) tert-butylbenzene	9.326	119	245394	50.40	ug/L	99
106) 1,2,4-trimethylbenzene	9.384	105	280791	50.73	ug/L	97
107) sec-butylbenzene	9.545	105	332194	48.66	ug/L	99
108) 1,3-dichlorobenzene	9.676	146	169542	50.24	ug/L	97
109) p-isopropyltoluene	9.689	119	291506	48.94	ug/L	98
111) 1,4-dichlorobenzene	9.772	146	165510	48.02	ug/L	96
112) 1,2-dichlorobenzene	10.129	146	158595	50.39	ug/L	99
113) n-butylbenzene	10.093	92	130469	50.61	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212469.D
Acq On : 29 Jul 2021 4:46 pm
Operator : PrashanS
Sample : ICV9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 30 10:58:06 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

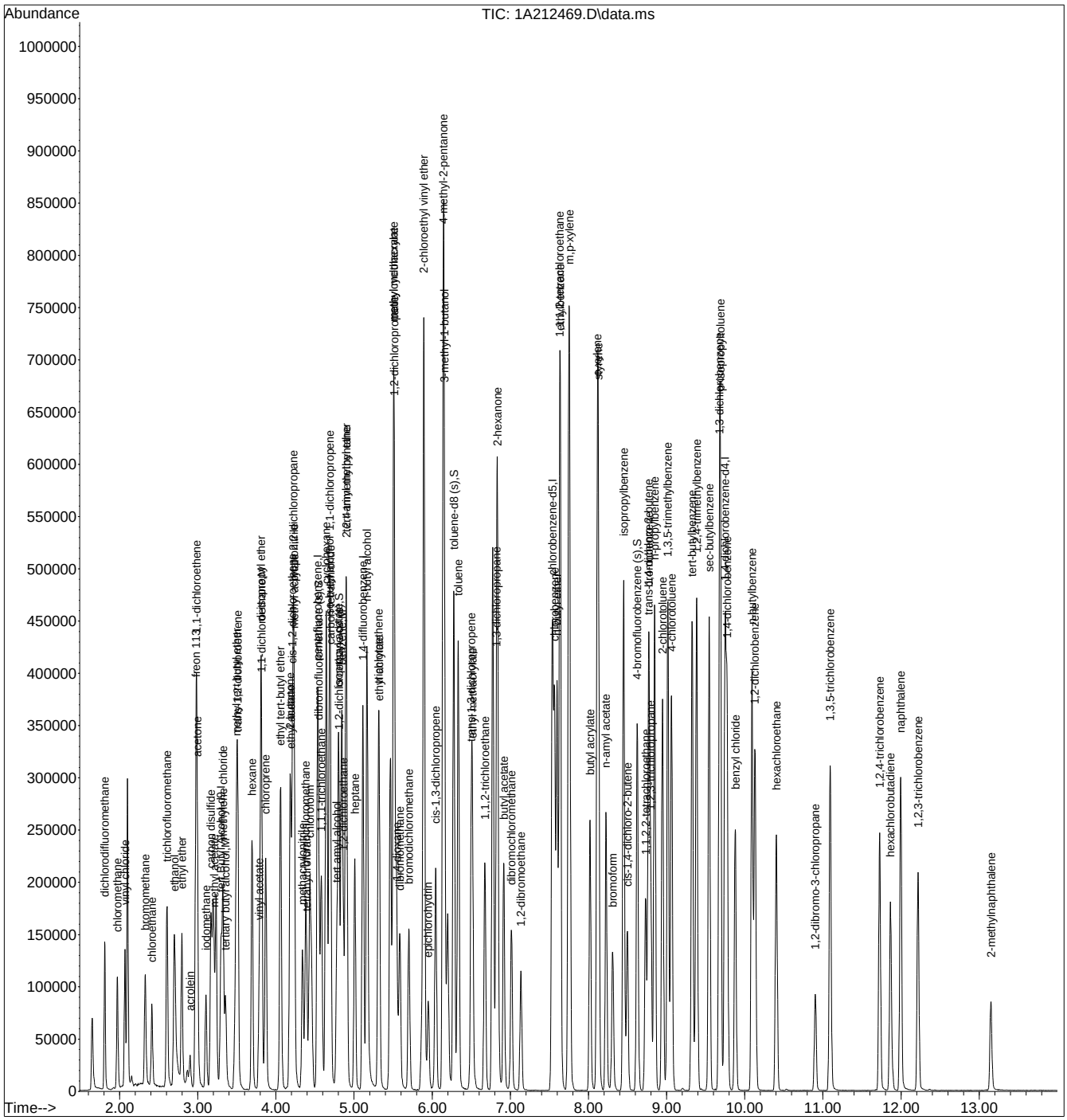
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) 1,2-dibromo-3-chloropr...	10.902	157	32719	51.35	ug/L	98
115) 1,3,5-trichlorobenzene	11.091	180	112911	49.84	ug/L	97
116) 1,2,4-trichlorobenzene	11.727	180	91764	50.71	ug/L	98
117) hexachlorobutadiene	11.865	225	38018	47.51	ug/L	98
118) naphthalene	11.996	128	272451	51.85	ug/L	99
119) 1,2,3-trichlorobenzene	12.218	180	77348	49.61	ug/L	97
120) hexachloroethane	10.405	119	51686	50.39	ug/L	98
121) benzyl chloride	9.882	91	196242	48.60	ug/L	97
122) 2-methylnaphthalene	13.151	142	51108	23.21	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212469.D
Acq On : 29 Jul 2021 4:46 pm
Operator : PrashanS
Sample : ICV9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 30 10:58:06 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212470.D
Acq On : 29 Jul 2021 5:11 pm
Operator : PrashanS
Sample : ICV9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 30 10:40:41 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

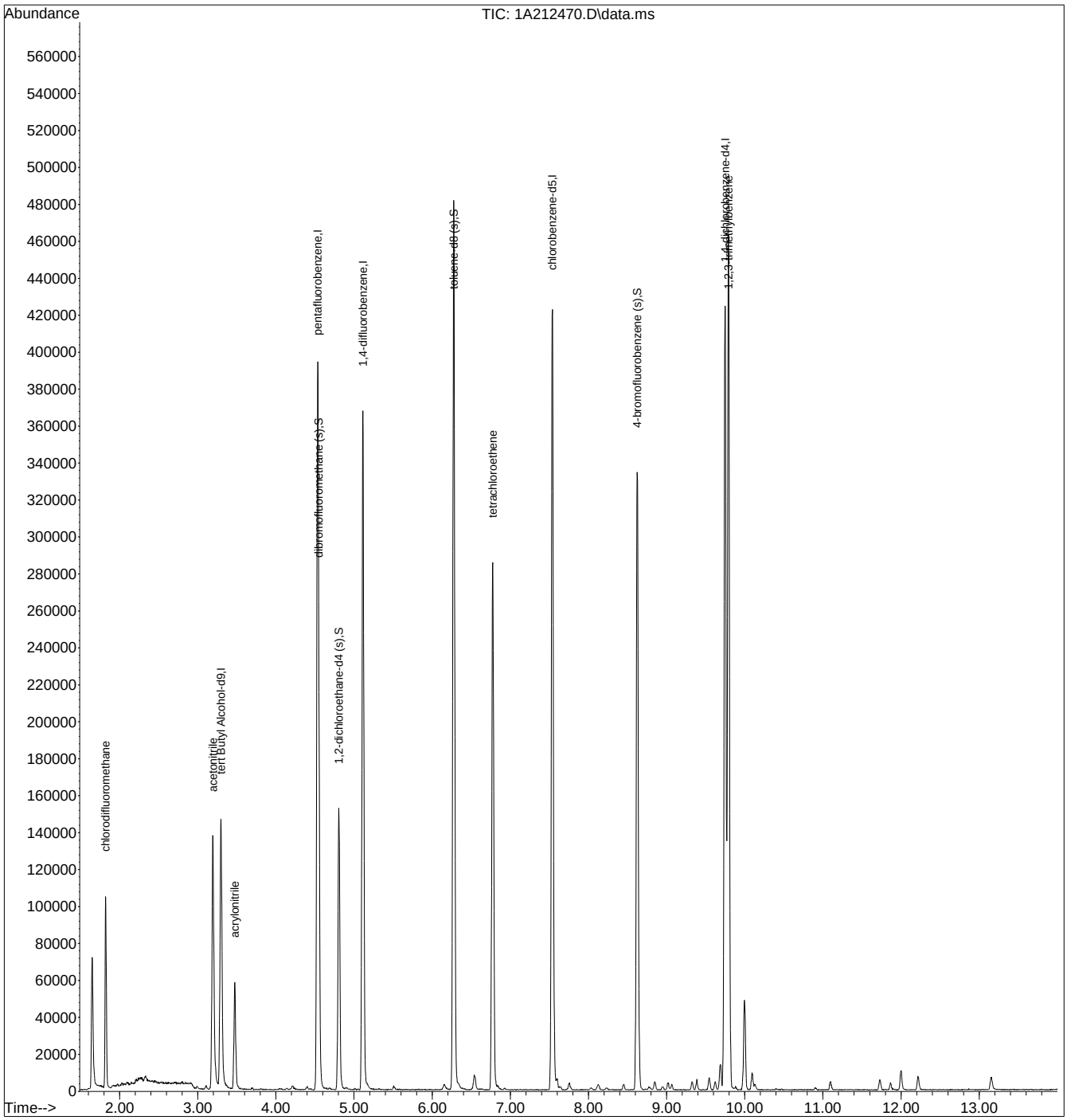
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.297	65	151136	500.00	ug/L	0.00
5) pentafluorobenzene	4.532	168	198810	50.00	ug/L	0.00
50) 1,4-difluorobenzene	5.113	114	281161	50.00	ug/L	0.00
71) chlorobenzene-d5	7.536	117	253188	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	9.750	152	126827	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	4.548	113	83281	51.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.94%			
51) 1,2-dichloroethane-d4 (s)	4.805	65	91088	50.83	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.66%			
72) toluene-d8 (s)	6.275	98	316870	50.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.78%			
96) 4-bromofluorobenzene (s)	8.624	95	113760	50.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.22%			
Target Compounds						Qvalue
6) chlorodifluoromethane	1.821	51	77923	55.07	ug/L	94
18) acetonitrile	3.194	40	71539	492.20	ug/L	97
32) acrylonitrile	3.473	53	37088	55.63	ug/L	98
78) tetrachloroethene	6.775	166	91525	51.33	ug/L	96
110) 1,2,3-trimethylbenzene	9.792	105	283301	50.63	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V1A9178\
Data File : 1A212470.D
Acq On : 29 Jul 2021 5:11 pm
Operator : PrashanS
Sample : ICV9178-50
Misc : MS52311,V1A9178,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 30 10:40:41 2021
Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration



M1A9178.M Tue Aug 03 11:57:40 2021 1A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212783.d
Acq On : 6 Aug 2021 8:48 pm
Operator : edwardd
Sample : cc9178-50 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:00:45 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.294	65	96332	500.00	ug/L		0.00
5) pentafluorobenzene	4.532	168	143273	50.00	ug/L		0.00
50) 1,4-difluorobenzene	5.113	114	210385	50.00	ug/L		0.00
71) chlorobenzene-d5	7.539	117	206314	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	9.747	152	102472	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	4.545	113	59930	51.40	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.80%				
51) 1,2-dichloroethane-d4 (s)	4.802	65	68376	50.99	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.98%				
72) toluene-d8 (s)	6.275	98	249429	49.16	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.32%				
96) 4-bromofluorobenzene (s)	8.620	95	91770	50.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.06%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.553	88	31792	1505.74	ug/L		96
3) ethanol	2.700	45	165703	6842.01	ug/L		98
4) tertiary butyl alcohol	3.351	59	53912	239.09	ug/L		94
6) chlorodifluoromethane	1.821	51	50516	49.54	ug/L		98
7) dichlorodifluoromethane	1.808	85	60594	41.79	ug/L		99
8) chloromethane	1.972	50	60341	46.82	ug/L		96
9) vinyl chloride	2.068	62	71592	52.49	ug/L		99
10) bromomethane	2.325	96	41041	56.28	ug/L		97
11) chloroethane	2.414	64	46309	53.53	ug/L		97
12) trichlorofluoromethane	2.604	101	97302	54.06	ug/L		98
13) ethyl ether	2.796	74	36522	55.12	ug/L		84
14) acrolein	2.902	56	15281	57.59	ug/L		99
15) freon 113	2.976	151	50038	51.51	ug/L		96
16) 1,1-dichloroethene	2.982	96	52225	54.51	ug/L		93
17) acetone	2.995	58	37943	224.10	ug/L		95
18) acetonitrile	3.191	40	55663	531.42	ug/L		96
19) iodomethane	3.101	142	57554	50.20	ug/L		94
20) iso-butyl alcohol	4.683	43	45111	521.83	ug/L		94
21) carbon disulfide	3.165	76	122657	46.71	ug/L		98
22) methylene chloride	3.319	84	49660	48.01	ug/L		97
23) methyl acetate	3.204	74	14083	49.94	ug/L	#	86
24) methyl tert butyl ether	3.496	73	148087	50.02	ug/L		98
25) trans-1,2-dichloroethene	3.512	96	48089	47.80	ug/L		93
26) hexane	3.695	57	70808	48.99	ug/L		97
27) di-isopropyl ether	3.807	45	167121	53.91	ug/L		97
28) ethyl tert-butyl ether	4.057	59	160224	50.43	ug/L		98
29) 2-butanone	4.183	72	41205	209.42	ug/L	#	76
30) 1,1-dichloroethane	3.817	63	89013	53.35	ug/L		98
31) chloroprene	3.868	53	74530	51.15	ug/L		98
32) acrylonitrile	3.470	53	27519	57.28	ug/L		93
33) vinyl acetate	3.788	86	12980	48.71	ug/L	#	73
34) ethyl acetate	4.189	45	12612	51.82	ug/L	#	64
35) 2,2-dichloropropane	4.221	77	66274	42.32	ug/L		99
36) cis-1,2-dichloroethene	4.208	96	55510	50.75	ug/L		96
37) propionitrile	4.227	54	128284	562.89	ug/L		94
38) methyl acrylate	4.234	85	12446	52.32	ug/L	#	77
39) bromochloromethane	4.378	128	28288	48.07	ug/L		93
40) tetrahydrofuran	4.394	72	12763	47.96	ug/L		97
41) chloroform	4.433	83	89986	47.78	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212783.d
Acq On : 6 Aug 2021 8:48 pm
Operator : edwardd
Sample : cc9178-50 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:00:45 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) methacrylonitrile	4.340	67	30082	52.50	ug/L		98
44) 1,1,1-trichloroethane	4.580	97	77817	47.51	ug/L		98
45) cyclohexane	4.645	84	69884	47.32	ug/L		86
46) 1,1-dichloropropene	4.690	75	69101	50.53	ug/L		98
47) carbon tetrachloride	4.696	117	69294	45.52	ug/L		97
48) isopropyl acetate	4.802	87	16674	49.45	ug/L	#	80
49) tert amyl alcohol	4.779	55	26703	309.91	ug/L	#	55
52) tert-amyl methyl ether	4.895	73	162746	46.87	ug/L		95
53) 2,2,4-trimethylpentane	4.898	57	142833	49.19	ug/L		94
54) n-butyl alcohol	5.164	56	168287	2524.76	ug/L		97
55) benzene	4.840	78	203300	48.64	ug/L		100
56) heptane	5.007	57	27829	46.12	ug/L		97
57) 1,2-dichloroethane	4.860	62	70170	47.13	ug/L		97
58) trichloroethene	5.312	95	53139	48.23	ug/L		92
59) ethyl acrylate	5.322	55	95285	53.92	ug/L		97
61) 2-chloroethyl vinyl ether	5.893	63	208328	264.23	ug/L		97
62) methyl methacrylate	5.505	100	20576	47.92	ug/L		90
63) 1,2-dichloropropane	5.511	63	52815	51.84	ug/L		97
64) methylcyclohexane	5.508	83	92629	49.89	ug/L		97
65) dibromomethane	5.582	93	33996	49.26	ug/L		92
66) bromodichloromethane	5.700	83	70075	48.00	ug/L		96
67) cis-1,3-dichloropropene	6.040	75	84664	48.61	ug/L		99
68) epichlorohydrin	5.951	57	46478	249.89	ug/L		99
69) 4-methyl-2-pentanone	6.140	58	133918	221.59	ug/L		99
70) 3-methyl-1-butanol	6.156	70	64942	1019.37	ug/L		93
73) toluene	6.329	92	133597	45.96	ug/L		99
74) trans-1,3-dichloropropene	6.499	75	77590	44.04	ug/L		95
75) ethyl methacrylate	6.512	69	87081	49.64	ug/L		97
76) 1,1,2-trichloroethane	6.673	83	43271	50.06	ug/L		99
77) 2-hexanone	6.833	58	143375	213.10	ug/L		89
78) tetrachloroethene	6.772	166	62223	42.82	ug/L		95
79) 1,3-dichloropropane	6.820	76	87225	48.37	ug/L		99
80) butyl acetate	6.917	56	51071	50.50	ug/L	#	82
81) dibromochloromethane	7.013	129	58188	43.00	ug/L		98
82) 1,2-dibromoethane	7.135	107	57385	46.25	ug/L		98
83) n-butyl ether	7.597	57	225749	48.26	ug/L		98
84) chlorobenzene	7.565	112	151749	45.27	ug/L		97
85) 1,1,1,2-tetrachloroethane	7.629	131	54882	44.03	ug/L		98
86) ethylbenzene	7.635	91	254454	46.39	ug/L		99
87) m,p-xylene	7.751	106	200248	91.46	ug/L		97
88) o-xylene	8.113	106	100567	46.53	ug/L		97
89) butyl acrylate	8.017	55	121974	51.13	ug/L		100
90) n-amyl acetate	8.226	70	50432	47.96	ug/L		95
91) styrene	8.126	104	173941	47.65	ug/L		98
92) bromoform	8.309	173	45804	42.22	ug/L		98
93) isopropylbenzene	8.447	105	254941	46.14	ug/L		99
94) cis-1,4-dichloro-2-butene	8.495	88	24990	42.86	ug/L		93
97) bromobenzene	8.774	156	68091	45.67	ug/L		97
98) 1,1,2,2-tetrachloroethane	8.730	83	77264	49.33	ug/L		97
99) trans-1,4-dichloro-2-b...	8.765	53	21331	47.72	ug/L		85
100) 1,2,3-trichloropropane	8.794	110	24334	44.56	ug/L		100
101) n-propylbenzene	8.845	91	281652	46.07	ug/L		97
102) 2-chlorotoluene	8.945	126	59887	45.32	ug/L		96
103) 4-chlorotoluene	9.060	126	61387	46.24	ug/L		93
104) 1,3,5-trimethylbenzene	9.015	105	197233	45.37	ug/L		97
105) tert-butylbenzene	9.326	119	172868	44.30	ug/L		100
106) 1,2,4-trimethylbenzene	9.384	105	203939	45.97	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212783.d
Acq On : 6 Aug 2021 8:48 pm
Operator : edwardd
Sample : cc9178-50 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:00:45 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration

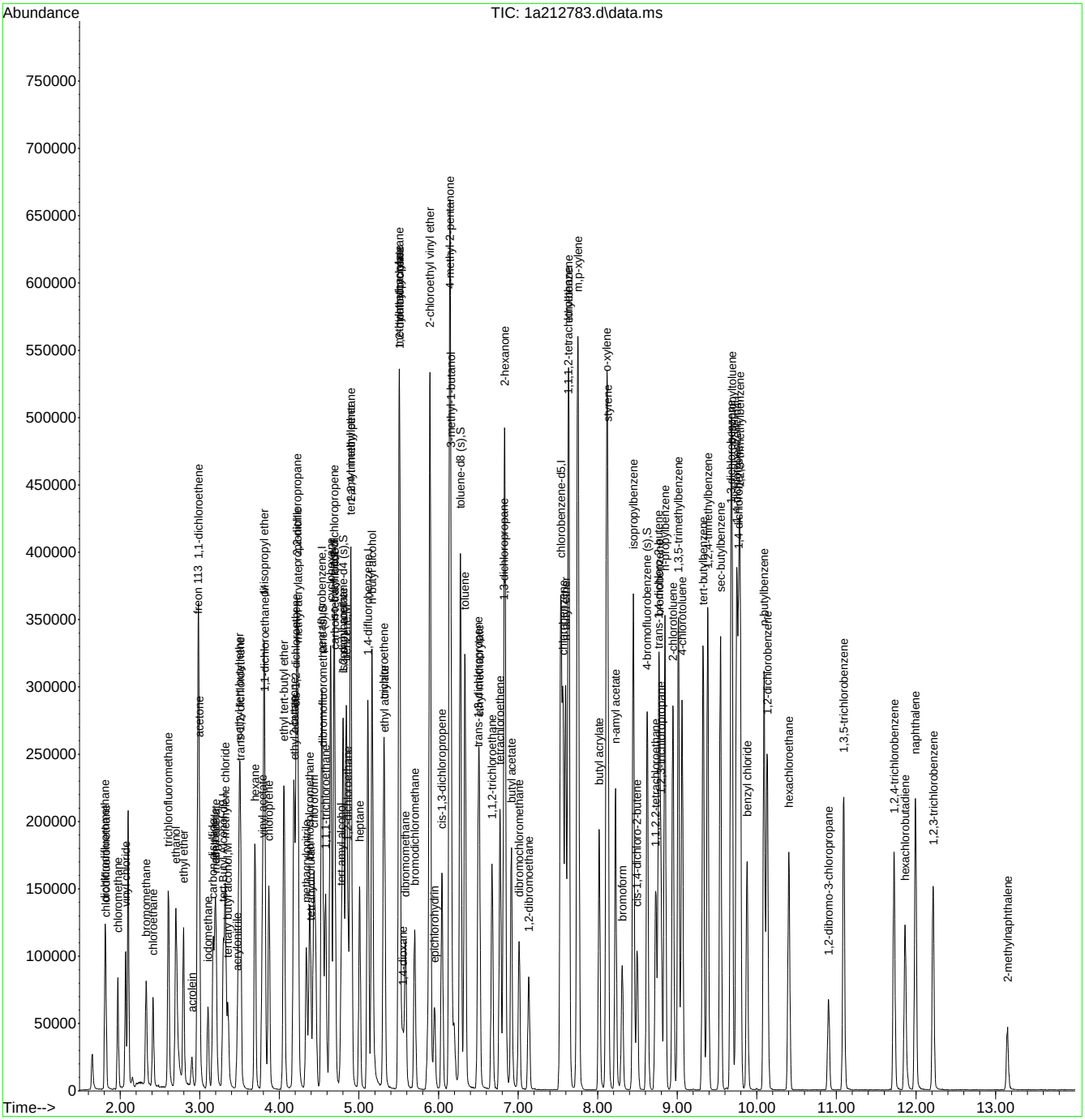
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) sec-butylbenzene	9.545	105	245835	44.93	ug/L	98
108) 1,3-dichlorobenzene	9.673	146	123352	45.60	ug/L	97
109) p-isopropyltoluene	9.689	119	213358	44.69	ug/L	97
110) 1,2,3-trimethylbenzene	9.788	105	208004	46.01	ug/L	98
111) 1,4-dichlorobenzene	9.769	146	123874	44.84	ug/L	98
112) 1,2-dichlorobenzene	10.132	146	116657	46.24	ug/L	99
113) n-butylbenzene	10.090	92	97520	47.20	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.902	157	22253	43.58	ug/L	89
115) 1,3,5-trichlorobenzene	11.091	180	77161	42.49	ug/L	97
116) 1,2,4-trichlorobenzene	11.727	180	62713	43.24	ug/L	98
117) hexachlorobutadiene	11.865	225	25926	40.42	ug/L	97
118) naphthalene	11.993	128	193765	46.01	ug/L	98
119) 1,2,3-trichlorobenzene	12.218	180	55362	44.30	ug/L	90
120) hexachloroethane	10.401	119	35133	42.73	ug/L	92
121) benzyl chloride	9.878	91	125039	38.64	ug/L	96
122) 2-methylnaphthalene	13.151	142	27408	16.34	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08102021\v1a9190\
Data File : 1a212783.d
Acq On : 6 Aug 2021 8:48 pm
Operator : edwardd
Sample : cc9178-50 Inst : MSDTEST1A
Misc : MS52724,V1A9190,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1A9178.M
Quant Results File: M1A9178.RES
Quant Time: Aug 09 18:00:45 2021
Quant Title : SW846 Method V8260C/D and EPA 624.1, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Fri Jul 30 09:04:25 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164951.D
Acq On : 22 Apr 2021 6:23 pm
Operator : PrashanS
Sample : IC7429-0.2
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 23 17:30:36 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

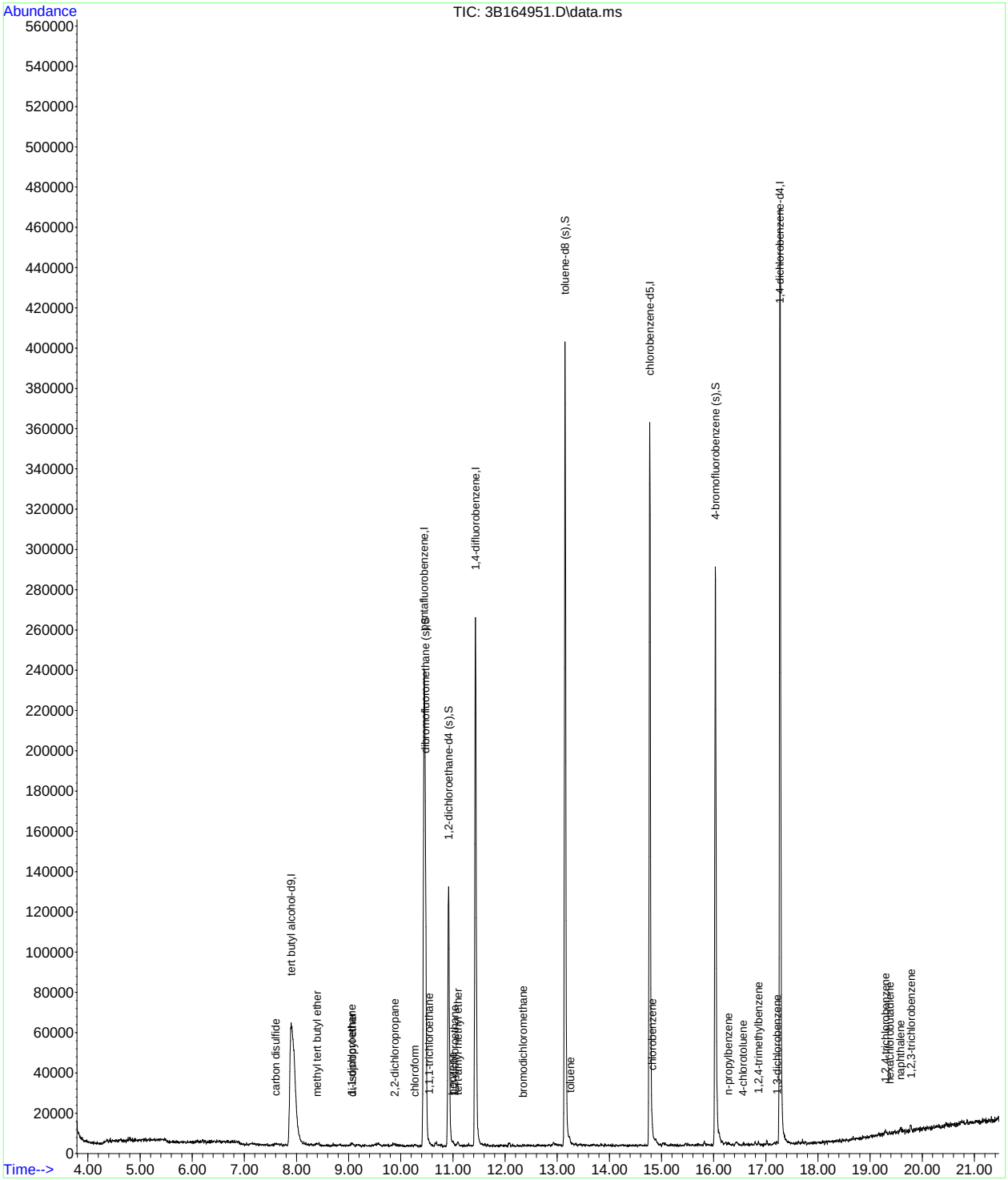
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.898	65	242661	500.00	ug/L		0.00
5) pentafluorobenzene	10.445	168	173241	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	240368	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	219066	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.271	152	138965	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.472	113	85132	48.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.40%				
54) 1,2-dichloroethane-d4 (s)	10.916	65	101028	51.05	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.10%				
75) toluene-d8 (s)	13.150	98	278149	50.85	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.70%				
99) 4-bromofluorobenzene (s)	16.031	95	107261	48.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.28%				
Target Compounds							Qvalue
22) carbon disulfide	7.600	76	1425	0.19	ug/L		76
25) methyl tert butyl ether	8.395	73	1653	0.20	ug/L		53
28) di-isopropyl ether	9.070	45	1390	0.18	ug/L		60
30) 1,1-dichloroethane	9.059	63	487	0.15	ug/L	#	55
36) 2,2-dichloropropane	9.881	77	732	0.20	ug/L		78
43) chloroform	10.268	83	860	0.25	ug/L		66
46) 1,1,1-trichloroethane	10.540	97	690	0.17	ug/L	#	48
57) benzene	10.995	78	1183	0.18	ug/L		76
58) tert-amyl methyl ether	11.094	73	1335	0.18	ug/L		67
60) 1,2-dichloroethane	11.026	62	569	0.22	ug/L		52
68) bromodichloromethane	12.344	83	460	0.19	ug/L	#	25
76) toluene	13.249	92	732	0.19	ug/L	#	60
87) chlorobenzene	14.818	112	753	0.17	ug/L		90
104) n-propylbenzene	16.277	91	1807	0.18	ug/L		91
106) 4-chlorotoluene	16.565	91	1082	0.18	ug/L	#	48
109) 1,2,4-trimethylbenzene	16.858	105	1264	0.16	ug/L		77
113) 1,3-dichlorobenzene	17.213	146	792	0.18	ug/L		91
122) 1,2,4-trichlorobenzene	19.295	180	997	0.17	ug/L		97
123) hexachlorobutadiene	19.374	225	388	0.16	ug/L		85
124) naphthalene	19.583	128	2969	0.17	ug/L		75
125) 1,2,3-trichlorobenzene	19.787	180	1229	0.19	ug/L		83

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164951.D
Acq On : 22 Apr 2021 6:23 pm
Operator : PrashanS
Sample : IC7429-0.2
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 23 17:30:36 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164952.D
Acq On : 22 Apr 2021 6:52 pm
Operator : PrashanS
Sample : IC7429-0.5
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 23 17:32:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.904	65	223566	500.00	ug/L		0.00
5) pentafluorobenzene	10.445	168	158114	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	222403	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	202106	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	135683	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.472	113	79357	49.23	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.46%				
54) 1,2-dichloroethane-d4 (s)	10.916	65	96394	52.65	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.30%				
75) toluene-d8 (s)	13.155	98	255147	50.56	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.12%				
99) 4-bromofluorobenzene (s)	16.031	95	102730	47.72	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.44%				
Target Compounds							Qvalue
9) vinyl chloride	4.776	62	2005	0.42	ug/L		89
10) 1,3-butadiene	4.818	54	1537	0.56	ug/L	#	63
14) vinyl bromide	6.062	106	1378	0.64	ug/L	#	71
18) 1,1-dichloroethene	7.150	96	600	0.38	ug/L	#	52
21) iodomethane	7.417	142	1678	0.44	ug/L		90
22) carbon disulfide	7.600	76	3475	0.50	ug/L		76
23) methylene chloride	7.971	84	960	0.49	ug/L		89
25) methyl tert butyl ether	8.416	73	3563	0.47	ug/L		95
26) trans-1,2-dichloroethene	8.427	96	736	0.47	ug/L	#	78
28) di-isopropyl ether	9.075	45	3398	0.47	ug/L		82
30) 1,1-dichloroethane	9.054	63	1409	0.49	ug/L		75
31) chloroprene	9.180	53	1075	0.43	ug/L		69
34) ethyl tert-butyl ether	9.588	59	3345	0.44	ug/L		87
36) 2,2-dichloropropane	9.881	77	1777	0.52	ug/L		88
37) cis-1,2-dichloroethene	9.849	96	1085	0.62	ug/L	#	59
41) bromochloromethane	10.168	128	361	0.37	ug/L	#	13
43) chloroform	10.268	83	1737	0.56	ug/L		90
46) 1,1,1-trichloroethane	10.545	97	1757	0.49	ug/L		81
47) cyclohexane	10.681	84	1556	0.47	ug/L	#	39
49) 1,1-dichloropropene	10.744	75	879	0.41	ug/L	#	64
50) carbon tetrachloride	10.764	117	1390	0.46	ug/L		80
57) benzene	10.989	78	2819	0.47	ug/L		84
58) tert-amyl methyl ether	11.089	73	3590	0.53	ug/L		93
59) heptane	11.298	57	465	0.38	ug/L	#	63
60) 1,2-dichloroethane	11.015	62	1182	0.50	ug/L		91
62) trichloroethene	11.774	95	749	0.47	ug/L		86
65) methylcyclohexane	12.077	83	1631	0.44	ug/L		82
66) 1,2-dichloropropane	12.062	63	812	0.49	ug/L	#	50
68) bromodichloromethane	12.344	83	1104	0.48	ug/L		85
71) cis-1,3-dichloropropene	12.841	75	902	0.34	ug/L		83
72) 4-methyl-2-pentanone	12.930	58	1377	1.39	ug/L		94
76) toluene	13.249	92	1441	0.40	ug/L	#	80
78) trans-1,3-dichloropropene	13.468	75	888	0.37	ug/L	#	62
79) 1,1,2-trichloroethane	13.678	83	545	0.43	ug/L		89
80) tetrachloroethene	13.845	164	665	0.49	ug/L	#	64
82) 1,3-dichloropropane	13.856	76	1116	0.49	ug/L		91
84) dibromochloromethane	14.133	129	789	0.43	ug/L		83
85) 1,2-dibromoethane	14.311	107	822	0.46	ug/L		81
86) n-butyl ether	14.807	57	2974	0.42	ug/L		87
87) chlorobenzene	14.818	112	1888	0.47	ug/L		83
88) 1,1,1,2-tetrachloroethane	14.886	131	927	0.45	ug/L		73
89) ethylbenzene	14.896	91	3377	0.49	ug/L		97
90) m,p-xylene	15.043	106	2181	0.81	ug/L	#	66
91) o-xylene	15.451	91	2824	0.45	ug/L		70
92) styrene	15.508	104	2005	0.45	ug/L		64

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164952.D
Acq On : 22 Apr 2021 6:52 pm
Operator : PrashanS
Sample : IC7429-0.5
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 23 17:32:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

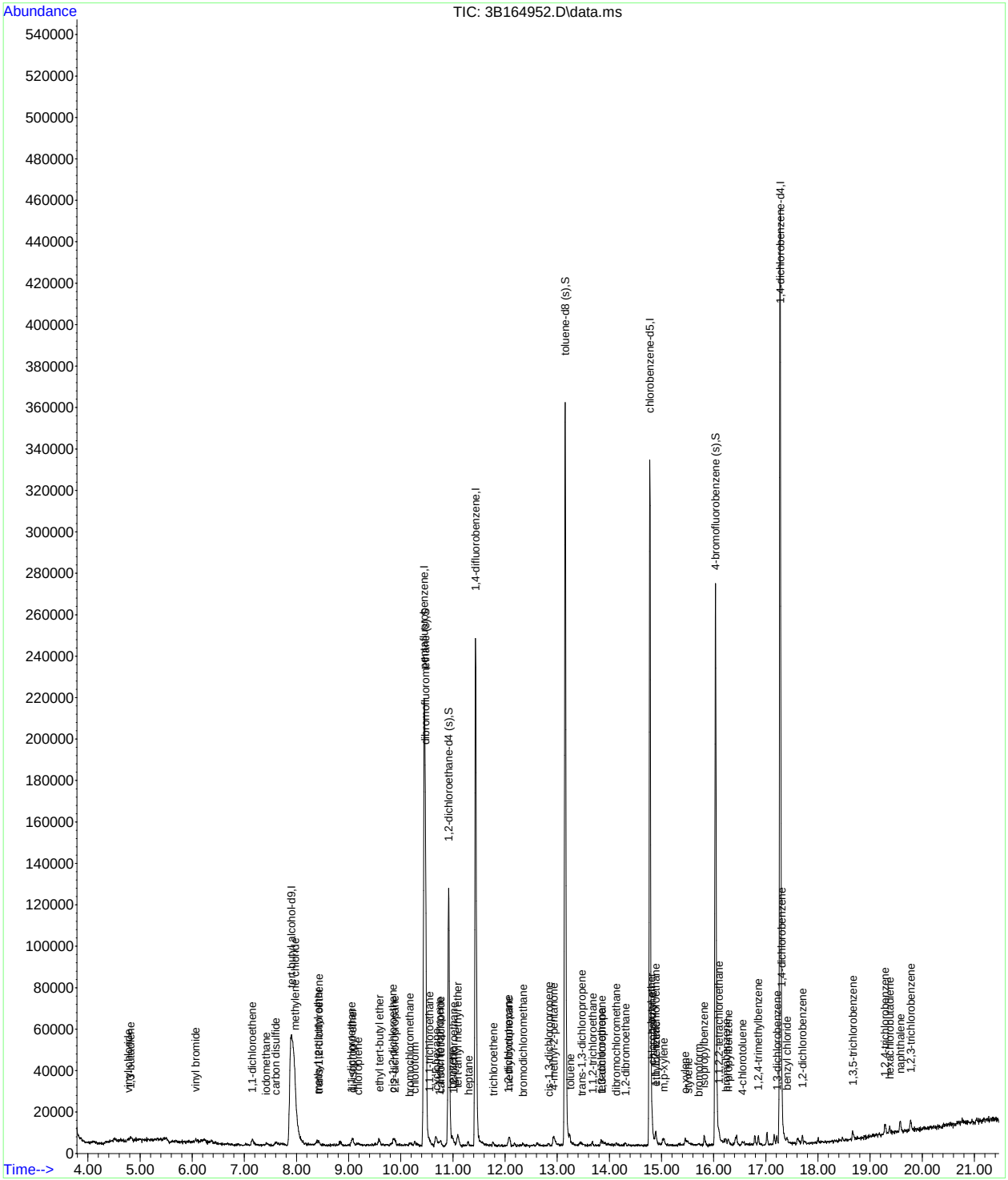
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	isopropylbenzene	15.817	105	3676	0.43	ug/L		85
96)	bromoform	15.712	173	702	0.48	ug/L		70
100)	1,1,2,2-tetrachloroethane	16.105	83	1258	0.43	ug/L		86
103)	bromobenzene	16.235	156	879	0.40	ug/L		92
104)	n-propylbenzene	16.277	91	3734	0.38	ug/L		98
106)	4-chlorotoluene	16.549	91	2450	0.42	ug/L		88
109)	1,2,4-trimethylbenzene	16.852	105	3273	0.41	ug/L		93
113)	1,3-dichlorobenzene	17.219	146	1930	0.45	ug/L		80
114)	1,4-dichlorobenzene	17.302	146	2099	0.48	ug/L		93
115)	1,2-dichlorobenzene	17.705	146	1968	0.40	ug/L		93
116)	benzyl chloride	17.407	91	2178	0.42	ug/L		90
120)	1,3,5-trichlorobenzene	18.667	180	2264	0.46	ug/L	#	79
122)	1,2,4-trichlorobenzene	19.285	180	2473	0.43	ug/L		94
123)	hexachlorobutadiene	19.379	225	1142	0.47	ug/L		80
124)	naphthalene	19.577	128	7205	0.43	ug/L		96
125)	1,2,3-trichlorobenzene	19.781	180	2703	0.44	ug/L		76

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164952.D
Acq On : 22 Apr 2021 6:52 pm
Operator : PrashanS
Sample : IC7429-0.5
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 23 17:32:05 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164953.D
Acq On : 22 Apr 2021 7:20 pm
Operator : PrashanS
Sample : IC7429-1
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 23 17:32:52 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.904	65	221677	500.00	ug/L		0.00
5) pentafluorobenzene	10.451	168	165482	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	236263	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	214760	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	140637	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.477	113	83200	49.32	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.64%				
54) 1,2-dichloroethane-d4 (s)	10.921	65	99013	50.90	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.80%				
75) toluene-d8 (s)	13.155	98	267839	49.95	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.90%				
99) 4-bromofluorobenzene (s)	16.037	95	108069	48.43	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.86%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.034	59	2745	4.63	ug/L		76
6) chlorodifluoromethane	4.106	51	4244	0.92	ug/L		63
7) dichlorodifluoromethane	4.112	85	5578	0.91	ug/L		84
8) chloromethane	4.520	50	6356	1.11	ug/L		98
9) vinyl chloride	4.802	62	4806	0.96	ug/L		81
10) 1,3-butadiene	4.823	54	2549	0.89	ug/L		99
12) chloroethane	5.675	64	1786	0.98	ug/L		92
13) trichlorofluoromethane	6.225	101	4609	0.95	ug/L		83
14) vinyl bromide	6.073	106	2411	1.07	ug/L		87
15) ethyl ether	6.669	74	720	0.81	ug/L	#	44
17) freon 113	7.176	151	1973	0.86	ug/L		87
18) 1,1-dichloroethene	7.135	96	1699	1.02	ug/L	#	41
19) acetone	7.192	58	1115	3.27	ug/L	#	1
21) iodomethane	7.428	142	3637	0.91	ug/L		81
22) carbon disulfide	7.600	76	7259	0.99	ug/L		97
23) methylene chloride	7.966	84	2001	0.98	ug/L		77
25) methyl tert butyl ether	8.395	73	7862	0.99	ug/L		97
26) trans-1,2-dichloroethene	8.421	96	2064	1.25	ug/L	#	71
27) hexane	8.840	56	1233	0.92	ug/L		92
28) di-isopropyl ether	9.080	45	7046	0.93	ug/L		91
30) 1,1-dichloroethane	9.065	63	3117	1.03	ug/L		89
31) chloroprene	9.180	53	2511	0.96	ug/L		89
34) ethyl tert-butyl ether	9.572	59	7108	0.89	ug/L		88
36) 2,2-dichloropropane	9.886	77	3972	1.11	ug/L		86
37) cis-1,2-dichloroethene	9.849	96	2038	1.12	ug/L		90
38) propionitrile	9.865	54	3072	7.68	ug/L		74
41) bromochloromethane	10.173	128	1097	1.07	ug/L	#	72
42) tetrahydrofuran	10.220	42	809	0.89	ug/L	#	38
43) chloroform	10.268	83	3362	1.04	ug/L		85
46) 1,1,1-trichloroethane	10.550	97	3244	0.86	ug/L		78
47) cyclohexane	10.676	84	3484	1.01	ug/L	#	84
49) 1,1-dichloropropene	10.733	75	2226	0.99	ug/L		95
50) carbon tetrachloride	10.770	117	2897	0.91	ug/L		88
51) tert-amyl alcohol	10.900	73	1639	6.35	ug/L	#	32
57) benzene	10.995	78	6393	1.00	ug/L		95
58) tert-amyl methyl ether	11.089	73	6836	0.96	ug/L		95
59) heptane	11.293	57	1194	0.93	ug/L	#	50
60) 1,2-dichloroethane	11.015	62	2637	1.04	ug/L		87
62) trichloroethene	11.774	95	1799	1.06	ug/L	#	59
65) methylcyclohexane	12.082	83	3581	0.91	ug/L		95
66) 1,2-dichloropropane	12.062	63	1633	0.92	ug/L		94
67) dibromomethane	12.182	93	1002	0.87	ug/L	#	64
68) bromodichloromethane	12.334	83	2293	0.94	ug/L		69
69) 2-nitropropane	12.532	41	519	0.90	ug/L		88
71) cis-1,3-dichloropropene	12.830	75	2771	0.99	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164953.D
Acq On : 22 Apr 2021 7:20 pm
Operator : PrashanS
Sample : IC7429-1
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 23 17:32:52 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

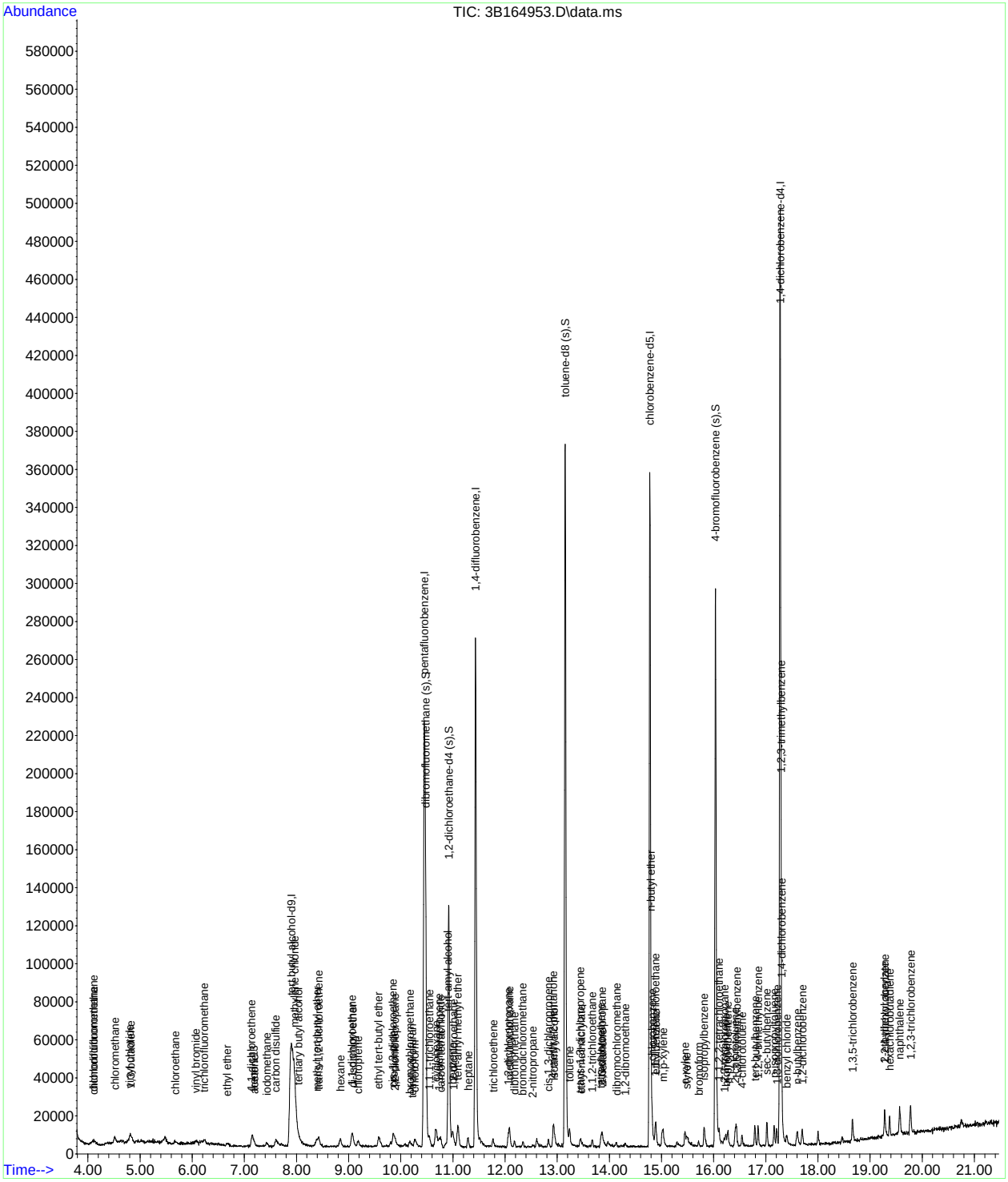
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
72) 4-methyl-2-pentanone	12.925	58	3583	3.41	ug/L	#	70
73) isoamyl alcohol	12.940	70	1555	15.12	ug/L	#	66
76) toluene	13.233	92	3375	0.88	ug/L		97
77) ethyl methacrylate	13.463	69	1878	0.75	ug/L		87
78) trans-1,3-dichloropropene	13.437	75	2238	0.89	ug/L		77
79) 1,1,2-trichloroethane	13.672	83	1159	0.86	ug/L		93
80) tetrachloroethene	13.840	164	1330	0.93	ug/L	#	73
81) 2-hexanone	13.866	58	2610	2.73	ug/L	#	47
82) 1,3-dichloropropane	13.861	76	2174	0.89	ug/L	#	68
84) dibromochloromethane	14.138	129	1655	0.85	ug/L		81
85) 1,2-dibromoethane	14.305	107	1536	0.81	ug/L		96
86) n-butyl ether	14.797	57	6129	0.82	ug/L		82
87) chlorobenzene	14.818	112	4117	0.96	ug/L		82
88) 1,1,1,2-tetrachloroethane	14.881	131	1977	0.90	ug/L		85
89) ethylbenzene	14.891	91	6731	0.92	ug/L		95
90) m,p-xylene	15.032	106	5297	1.85	ug/L		85
91) o-xylene	15.451	91	6020	0.90	ug/L		94
92) styrene	15.482	104	4183	0.88	ug/L		97
95) isopropylbenzene	15.817	105	8050	0.88	ug/L		97
96) bromoform	15.717	173	1306	0.83	ug/L		93
100) 1,1,2,2-tetrachloroethane	16.105	83	2749	0.91	ug/L		96
102) 1,2,3-trichloropropane	16.209	110	700	0.85	ug/L	#	59
103) bromobenzene	16.235	156	2295	1.02	ug/L	#	78
104) n-propylbenzene	16.272	91	8612	0.85	ug/L		89
105) 2-chlorotoluene	16.413	126	1831	0.83	ug/L	#	54
106) 4-chlorotoluene	16.544	91	5595	0.93	ug/L		90
107) 1,3,5-trimethylbenzene	16.439	105	6641	0.80	ug/L		94
108) tert-butylbenzene	16.795	119	6111	0.79	ug/L		95
109) 1,2,4-trimethylbenzene	16.852	105	6988	0.85	ug/L		94
110) sec-butylbenzene	17.020	105	9562	0.82	ug/L		99
111) p-isopropyltoluene	17.161	119	7779	0.79	ug/L		96
112) 1,2,3-trimethylbenzene	17.292	105	8035	0.81	ug/L	#	77
113) 1,3-dichlorobenzene	17.213	146	4358	0.98	ug/L		83
114) 1,4-dichlorobenzene	17.302	146	4830	1.07	ug/L		94
115) 1,2-dichlorobenzene	17.705	146	4981	0.98	ug/L		75
116) benzyl chloride	17.402	91	4966	0.91	ug/L		96
117) n-butylbenzene	17.606	92	3865	0.82	ug/L		83
120) 1,3,5-trichlorobenzene	18.662	180	4835	0.94	ug/L		89
121) 2-ethylhexyl acrylate	19.279	70	464	0.13	ug/L	#	38
122) 1,2,4-trichlorobenzene	19.285	180	5570	0.94	ug/L		82
123) hexachlorobutadiene	19.379	225	2459	0.98	ug/L		90
124) naphthalene	19.567	128	15857	0.91	ug/L		97
125) 1,2,3-trichlorobenzene	19.781	180	5845	0.91	ug/L		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164953.D
Acq On : 22 Apr 2021 7:20 pm
Operator : PrashanS
Sample : IC7429-1
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 23 17:32:52 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Mei Chen
04/26/21 10:13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164954.D
Acq On : 22 Apr 2021 7:49 pm
Operator : PrashanS
Sample : IC7429-2
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 09:28:10 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.898	65	222961	500.00	ug/L		0.00
5) pentafluorobenzene	10.445	168	161740	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	228910	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	209544	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	136568	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.471	113	80117	48.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.18%				
54) 1,2-dichloroethane-d4 (s)	10.916	65	95356	50.60	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.20%				
75) toluene-d8 (s)	13.155	98	260139	49.72	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%				
99) 4-bromofluorobenzene (s)	16.036	95	106966	49.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.72%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.055	59	6063	10.16	ug/L		76
6) chlorodifluoromethane	4.096	51	8950	1.99	ug/L		93
7) dichlorodifluoromethane	4.091	85	11220	1.88	ug/L		74
8) chloromethane	4.509	50	11720	2.09	ug/L		94
9) vinyl chloride	4.776	62	9817	2.01	ug/L		94
10) 1,3-butadiene	4.818	54	5884	2.10	ug/L		90
11) bromomethane	5.482	94	6645	2.32	ug/L		74
12) chloroethane	5.675	64	3705	2.07	ug/L		78
13) trichlorofluoromethane	6.219	101	9484m	2.00	ug/L		
14) vinyl bromide	6.052	106	4298	1.96	ug/L		81
15) ethyl ether	6.674	74	1803	2.07	ug/L	#	48
17) freon 113	7.161	151	4734	2.12	ug/L		86
18) 1,1-dichloroethene	7.140	96	3390	2.09	ug/L	#	85
19) acetone	7.150	58	2564	7.70	ug/L	#	36
20) acetonitrile	7.621	41	9204	18.78	ug/L		85
21) iodomethane	7.427	142	7187	1.85	ug/L		94
22) carbon disulfide	7.595	76	13866	1.94	ug/L		93
23) methylene chloride	7.961	84	3922	1.96	ug/L		74
24) methyl acetate	7.699	43	3495	1.75	ug/L		90
25) methyl tert butyl ether	8.390	73	16024	2.07	ug/L		95
26) trans-1,2-dichloroethene	8.437	96	3517	2.19	ug/L	#	67
27) hexane	8.829	56	2627	2.00	ug/L		95
28) di-isopropyl ether	9.070	45	14402	1.95	ug/L		89
29) 2-butanone	9.797	72	1856	5.95	ug/L	#	49
30) 1,1-dichloroethane	9.059	63	6322	2.14	ug/L		97
31) chloroprene	9.185	53	4633	1.81	ug/L		87
34) ethyl tert-butyl ether	9.582	59	14370	1.85	ug/L		96
36) 2,2-dichloropropane	9.880	77	7855	2.25	ug/L		94
37) cis-1,2-dichloroethene	9.849	96	3826	2.15	ug/L		88
38) propionitrile	9.849	54	6481	16.57	ug/L		92
41) bromochloromethane	10.168	128	2017	2.00	ug/L	#	72
42) tetrahydrofuran	10.205	42	1778	1.99	ug/L		85
43) chloroform	10.273	83	6426	2.03	ug/L		86
44) tert-Butyl Formate	10.304	59	2641	1.80	ug/L		72
46) 1,1,1-trichloroethane	10.545	97	7249	1.97	ug/L		93
47) cyclohexane	10.681	84	6434	1.91	ug/L		79
48) isobutyl alcohol	10.911	43	8802	17.55	ug/L		98
49) 1,1-dichloropropene	10.728	75	4257	1.94	ug/L		97
50) carbon tetrachloride	10.759	117	5772	1.86	ug/L		97
51) tert-amyl alcohol	10.869	73	2672	10.59	ug/L		97
55) n-butyl alcohol	11.507	56	9261	85.87	ug/L		93
56) 2,2,4-trimethylpentane	11.104	57	13044	1.67	ug/L		93
57) benzene	10.994	78	12527	2.02	ug/L		93
58) tert-amyl methyl ether	11.089	73	13187	1.90	ug/L		89
59) heptane	11.287	57	2536	2.04	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164954.D
Acq On : 22 Apr 2021 7:49 pm
Operator : PrashanS
Sample : IC7429-2
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 09:28:10 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

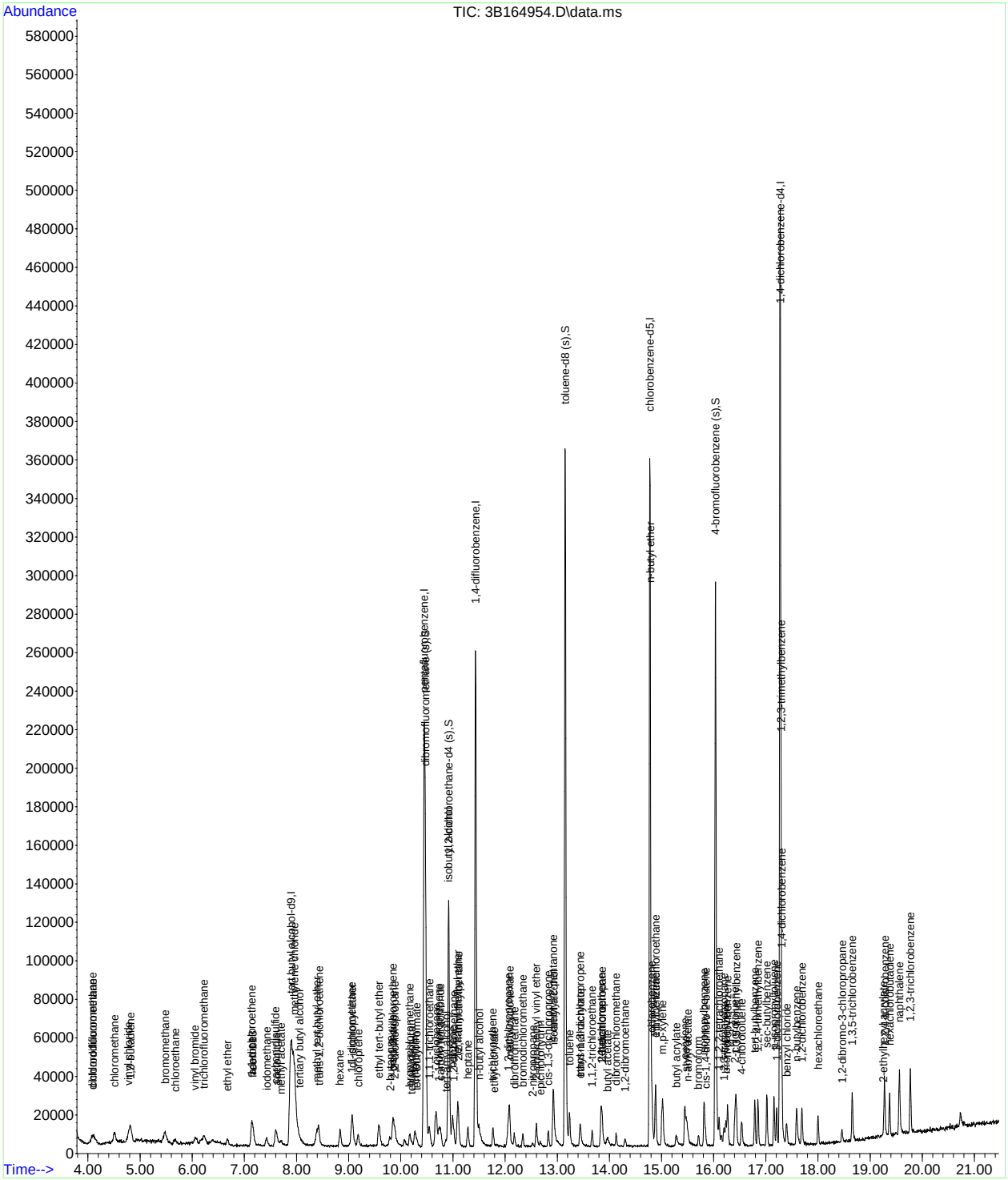
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
60) 1,2-dichloroethane	11.015	62	4728	1.93	ug/L		90
61) ethyl acrylate	11.789	55	3919	1.48	ug/L		81
62) trichloroethene	11.763	95	3253	1.97	ug/L		93
63) 2-chloroethyl vinyl ether	12.595	63	6179	8.10	ug/L		95
65) methylcyclohexane	12.088	83	7627	2.01	ug/L		90
66) 1,2-dichloropropane	12.061	63	3628	2.11	ug/L		91
67) dibromomethane	12.182	93	2461	2.20	ug/L		89
68) bromodichloromethane	12.339	83	4900	2.08	ug/L		86
69) 2-nitropropane	12.532	41	1243	2.23	ug/L		95
70) epichlorohydrin	12.679	57	2118	8.41	ug/L		92
71) cis-1,3-dichloropropene	12.825	75	5379	1.99	ug/L		86
72) 4-methyl-2-pentanone	12.924	58	7810	7.67	ug/L	#	79
73) isoamyl alcohol	12.930	70	3287	32.99	ug/L		86
76) toluene	13.233	92	7162	1.91	ug/L		93
77) ethyl methacrylate	13.447	69	4190	1.71	ug/L	#	68
78) trans-1,3-dichloropropene	13.442	75	4557	1.85	ug/L		82
79) 1,1,2-trichloroethane	13.662	83	2491	1.90	ug/L		90
80) tetrachloroethene	13.845	164	3124	2.24	ug/L	#	56
81) 2-hexanone	13.855	58	6927	7.41	ug/L	#	80
82) 1,3-dichloropropane	13.861	76	5009	2.10	ug/L		84
83) butyl acetate	13.960	56	2203	1.56	ug/L	#	56
84) dibromochloromethane	14.127	129	3844	2.02	ug/L		89
85) 1,2-dibromoethane	14.300	107	3276	1.76	ug/L		95
86) n-butyl ether	14.786	57	13621	1.86	ug/L		72
87) chlorobenzene	14.813	112	8156	1.95	ug/L		88
88) 1,1,1,2-tetrachloroethane	14.886	131	4044	1.89	ug/L		99
89) ethylbenzene	14.886	91	14363	2.01	ug/L		98
90) m,p-xylene	15.017	106	10714	3.84	ug/L		95
91) o-xylene	15.445	91	13072	1.99	ug/L		89
92) styrene	15.466	104	9121	1.96	ug/L		80
93) butyl acrylate	15.278	55	7205	1.81	ug/L	#	80
94) n-amyl acetate	15.503	70	2061	1.50	ug/L		87
95) isopropylbenzene	15.817	105	15816	1.77	ug/L		93
96) bromoform	15.702	173	2720	1.78	ug/L		87
97) cis-1,4-dichloro-2-butene	15.853	88	1697	1.75	ug/L	#	89
100) 1,1,2,2-tetrachloroethane	16.104	83	5453	1.87	ug/L		86
102) 1,2,3-trichloropropane	16.199	110	1550	1.95	ug/L		88
103) bromobenzene	16.235	156	4638	2.11	ug/L		92
104) n-propylbenzene	16.267	91	18117	1.85	ug/L		99
105) 2-chlorotoluene	16.408	126	3805	1.78	ug/L	#	85
106) 4-chlorotoluene	16.539	91	11225	1.93	ug/L		96
107) 1,3,5-trimethylbenzene	16.434	105	14815	1.83	ug/L		98
108) tert-butylbenzene	16.790	119	11713	1.56	ug/L		97
109) 1,2,4-trimethylbenzene	16.847	105	15009	1.87	ug/L		96
110) sec-butylbenzene	17.020	105	19144	1.70	ug/L		98
111) p-isopropyltoluene	17.156	119	16969	1.76	ug/L		94
112) 1,2,3-trimethylbenzene	17.292	105	17423	1.81	ug/L		88
113) 1,3-dichlorobenzene	17.208	146	8624	1.99	ug/L		92
114) 1,4-dichlorobenzene	17.302	146	9128	2.08	ug/L		95
115) 1,2-dichlorobenzene	17.694	146	9593	1.95	ug/L		96
116) benzyl chloride	17.401	91	9519	1.80	ug/L		98
117) n-butylbenzene	17.590	92	7492	1.64	ug/L		83
118) hexachloroethane	18.003	201	2479	1.39	ug/L		81
119) 1,2-dibromo-3-chloropr...	18.463	157	2373	2.01	ug/L		84
120) 1,3,5-trichlorobenzene	18.657	180	9965	2.00	ug/L		98
121) 2-ethylhexyl acrylate	19.253	70	1013	0.29	ug/L	#	62
122) 1,2,4-trichlorobenzene	19.284	180	11427	1.99	ug/L		88
123) hexachlorobutadiene	19.373	225	4811	1.98	ug/L		92
124) naphthalene	19.562	128	32768	1.94	ug/L		98
125) 1,2,3-trichlorobenzene	19.771	180	12304	1.98	ug/L		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164954.D
Acq On : 22 Apr 2021 7:49 pm
Operator : PrashanS
Sample : IC7429-2
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 09:28:10 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



M3B7429.M Mon Apr 26 14:13:26 2021 Page: 3

Manual Integration Approval Summary

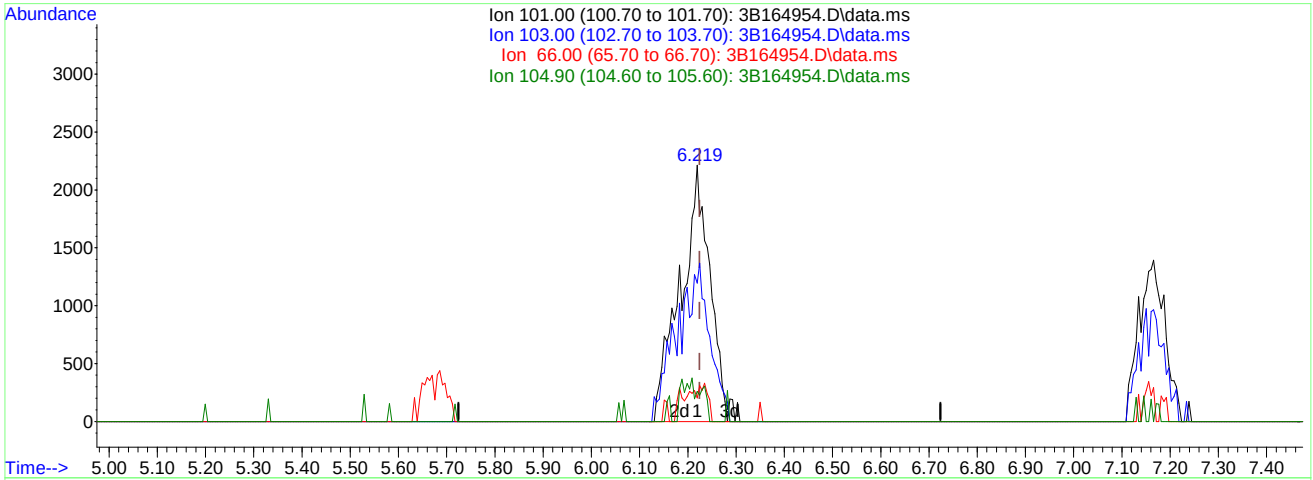
Sample Number:	V3B7429-IC7429	**Method:**	SW846 8260D
Lab FileID:	3B164954.D	**Analyst approved:**	04/26/21 09:38 Bridget Kelly
Injection Time:	04/22/21 19:49	**Supervisor approved:**	04/26/21 10:13 Mei Chen

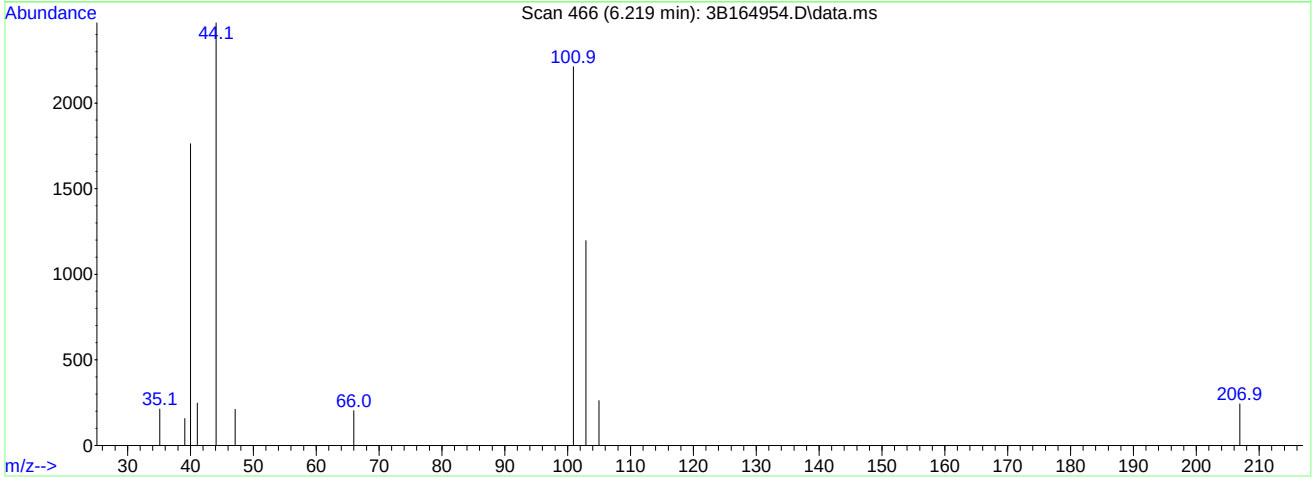
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		6.22	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164954.D
Acq On : 22 Apr 2021 7:49 pm
Operator : PrashanS
Sample : IC7429-2
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 23 17:33:54 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration





TIC: 3B164954.D\data.ms

(13) trichlorofluoromethane

6.219min (-0.005) 2.00ug/L m

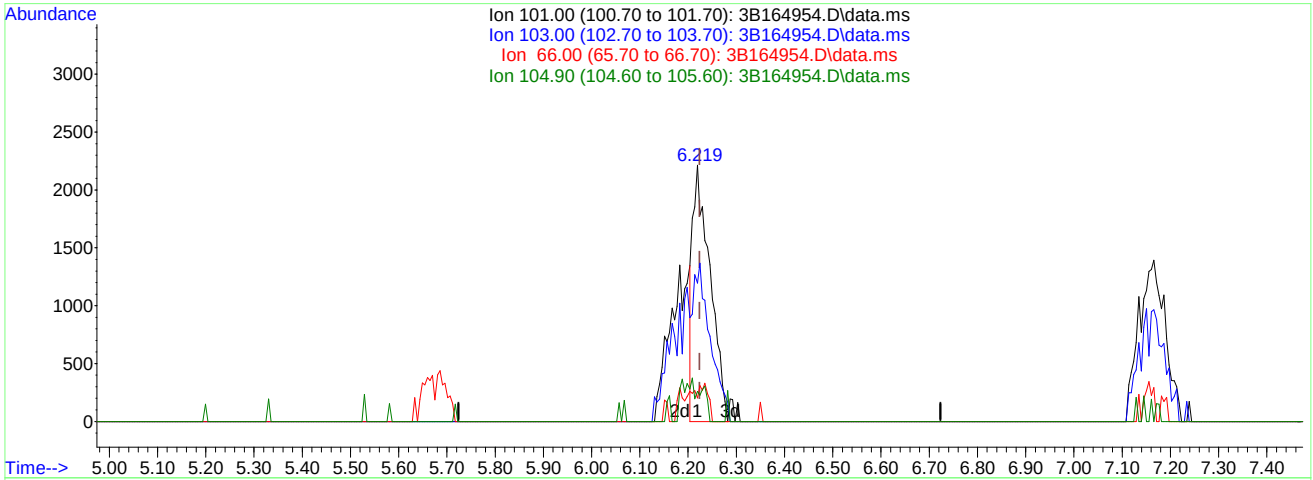
response 9484

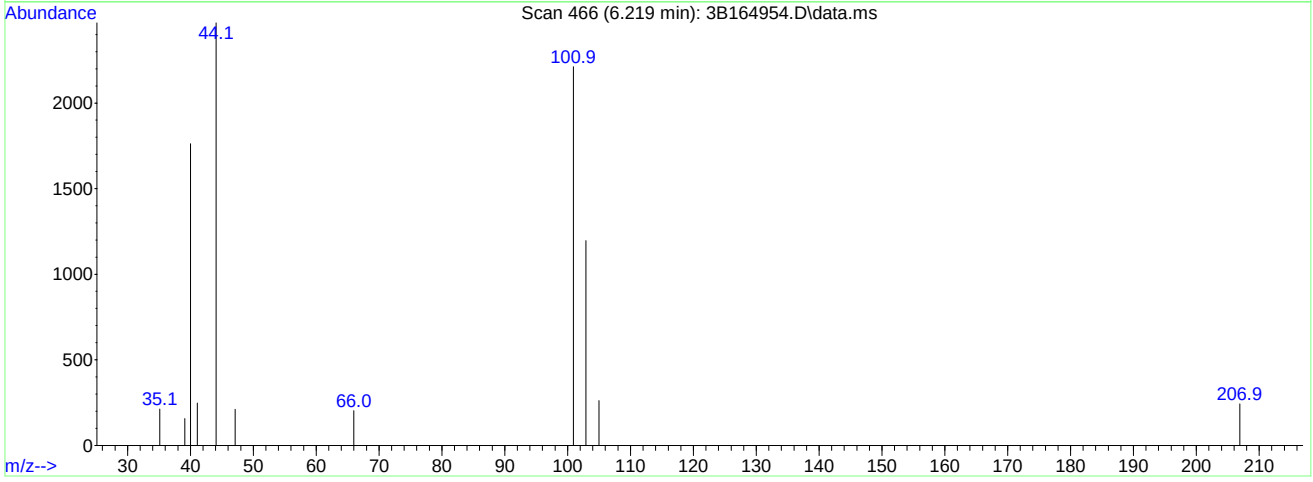
Ion	Exp%	Act%
101.00	100	100
103.00	64.50	54.04
66.00	12.30	9.17
104.90	10.50	11.79

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 3B164954.D
Acq On : 22 Apr 2021 7:49 pm
Operator : PrashanS
Sample : IC7429-2
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 14:12:31 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration





TIC: 3B164954.D\data.ms

(13) trichlorofluoromethane

6.219min (-0.005) 1.20ug/L

response 5531

Ion	Exp%	Act%
101.00	100	100
103.00	64.50	46.50
66.00	12.30	9.17
104.90	10.50	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164955.D
Acq On : 22 Apr 2021 8:18 pm
Operator : PrashanS
Sample : IC7429-4
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 23 17:34:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.898	65	224954	500.00	ug/L		0.00
5) pentafluorobenzene	10.451	168	161021	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	227581	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	206938	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	133837	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.471	113	80465	49.02	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.04%				
54) 1,2-dichloroethane-d4 (s)	10.916	65	95762	51.11	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.22%				
75) toluene-d8 (s)	13.155	98	261339	50.58	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.16%				
99) 4-bromofluorobenzene (s)	16.036	95	105300	49.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.066	59	12591	20.91	ug/L		93
4) 1,4-dioxane	12.119	88	2968	81.32	ug/L		87
6) chlorodifluoromethane	4.106	51	18232	4.07	ug/L		96
7) dichlorodifluoromethane	4.085	85	23029	3.87	ug/L		94
8) chloromethane	4.514	50	22526	4.03	ug/L		99
9) vinyl chloride	4.776	62	18996	3.91	ug/L		97
10) 1,3-butadiene	4.818	54	11143	4.00	ug/L		93
11) bromomethane	5.487	94	12256	4.29	ug/L		84
12) chloroethane	5.660	64	7429	4.18	ug/L		94
13) trichlorofluoromethane	6.230	101	18172	3.85	ug/L		94
14) vinyl bromide	6.073	106	8794	4.03	ug/L		95
15) ethyl ether	6.690	74	3191	3.68	ug/L	#	72
16) acrolein	6.946	56	992	2.80	ug/L	#	20
17) freon 113	7.166	151	8797	3.96	ug/L		92
18) 1,1-dichloroethene	7.140	96	6483	4.01	ug/L		93
19) acetone	7.145	58	5153	15.55	ug/L	#	61
20) acetonitrile	7.605	41	18775	38.49	ug/L		88
21) iodomethane	7.433	142	14886	3.84	ug/L		91
22) carbon disulfide	7.600	76	28293	3.99	ug/L		97
23) methylene chloride	7.956	84	7693	3.87	ug/L		93
24) methyl acetate	7.705	43	7993	4.03	ug/L		92
25) methyl tert butyl ether	8.390	73	30830	3.99	ug/L		98
26) trans-1,2-dichloroethene	8.426	96	6921	4.32	ug/L		95
27) hexane	8.829	56	4860	3.72	ug/L		89
28) di-isopropyl ether	9.070	45	29494	4.01	ug/L		94
29) 2-butanone	9.781	72	4365	14.06	ug/L		100
30) 1,1-dichloroethane	9.059	63	12496	4.24	ug/L		97
31) chloroprene	9.174	53	9251	3.63	ug/L		93
32) acrylonitrile	8.306	53	2726	3.12	ug/L	#	62
34) ethyl tert-butyl ether	9.582	59	28907	3.73	ug/L		94
35) ethyl acetate	9.812	45	1110	3.14	ug/L	#	7
36) 2,2-dichloropropane	9.886	77	14044	4.04	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164955.D
Acq On : 22 Apr 2021 8:18 pm
Operator : PrashanS
Sample : IC7429-4
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 23 17:34:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	9.849	96	7130	4.03	ug/L		81
38) propionitrile	9.839	54	14678	37.69	ug/L		95
39) methyl acrylate	9.922	85	508	1.61	ug/L	#	1
40) methacrylonitrile	10.063	67	3151	3.55	ug/L	#	75
41) bromochloromethane	10.179	128	4100	4.09	ug/L		93
42) tetrahydrofuran	10.215	42	3454	3.89	ug/L		94
43) chloroform	10.267	83	13409	4.26	ug/L		90
44) tert-Butyl Formate	10.304	59	4870	3.33	ug/L		82
46) 1,1,1-trichloroethane	10.550	97	14013	3.82	ug/L		95
47) cyclohexane	10.675	84	13001	3.88	ug/L		86
48) isobutyl alcohol	10.906	43	18527	37.11	ug/L		98
49) 1,1-dichloropropene	10.733	75	8770	4.02	ug/L		94
50) carbon tetrachloride	10.775	117	11961	3.87	ug/L		97
51) tert-amyl alcohol	10.879	73	5214	20.76	ug/L	#	71
52) isopropyl acetate	10.911	87	1402	3.04	ug/L	#	65
55) n-butyl alcohol	11.491	56	18408	171.67	ug/L		98
56) 2,2,4-trimethylpentane	11.099	57	26721	3.44	ug/L		97
57) benzene	10.989	78	25497	4.13	ug/L		96
58) tert-amyl methyl ether	11.089	73	27502	3.99	ug/L		97
59) heptane	11.277	57	4699	3.80	ug/L		87
60) 1,2-dichloroethane	11.015	62	10252	4.21	ug/L		96
61) ethyl acrylate	11.774	55	10009	3.81	ug/L		96
62) trichloroethene	11.763	95	6425	3.92	ug/L		87
63) 2-chloroethyl vinyl ether	12.595	63	13115	17.29	ug/L		94
65) methylcyclohexane	12.088	83	15149	4.02	ug/L		96
66) 1,2-dichloropropane	12.056	63	7049	4.12	ug/L		94
67) dibromomethane	12.177	93	4565	4.11	ug/L		92
68) bromodichloromethane	12.344	83	9511	4.05	ug/L		93
69) 2-nitropropane	12.522	41	2241	4.05	ug/L		77
70) epichlorohydrin	12.684	57	4693	18.74	ug/L		89
71) cis-1,3-dichloropropene	12.825	75	10882	4.05	ug/L		97
72) 4-methyl-2-pentanone	12.919	58	15876	15.69	ug/L		97
73) isoamyl alcohol	12.935	70	6974	70.40	ug/L	#	78
76) toluene	13.238	92	14458	3.90	ug/L		97
77) ethyl methacrylate	13.437	69	9238	3.81	ug/L		86
78) trans-1,3-dichloropropene	13.437	75	9539	3.92	ug/L		91
79) 1,1,2-trichloroethane	13.667	83	5438	4.21	ug/L		99
80) tetrachloroethene	13.835	164	5565	4.04	ug/L		97
81) 2-hexanone	13.840	58	14618	15.84	ug/L		91
82) 1,3-dichloropropane	13.861	76	9356	3.98	ug/L		84
83) butyl acetate	13.944	56	5024	3.59	ug/L		88
84) dibromochloromethane	14.133	129	7119	3.79	ug/L		86
85) 1,2-dibromoethane	14.295	107	7100	3.87	ug/L		97
86) n-butyl ether	14.781	57	28297	3.92	ug/L		83
87) chlorobenzene	14.818	112	16615	4.02	ug/L		91
88) 1,1,1,2-tetrachloroethane	14.886	131	8017	3.79	ug/L		96
89) ethylbenzene	14.886	91	29132	4.12	ug/L		98
90) m,p-xylene	15.017	106	22766	8.26	ug/L		97
91) o-xylene	15.445	91	25209	3.89	ug/L		95
92) styrene	15.466	104	17643	3.83	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164955.D
Acq On : 22 Apr 2021 8:18 pm
Operator : PrashanS
Sample : IC7429-4
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 23 17:34:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

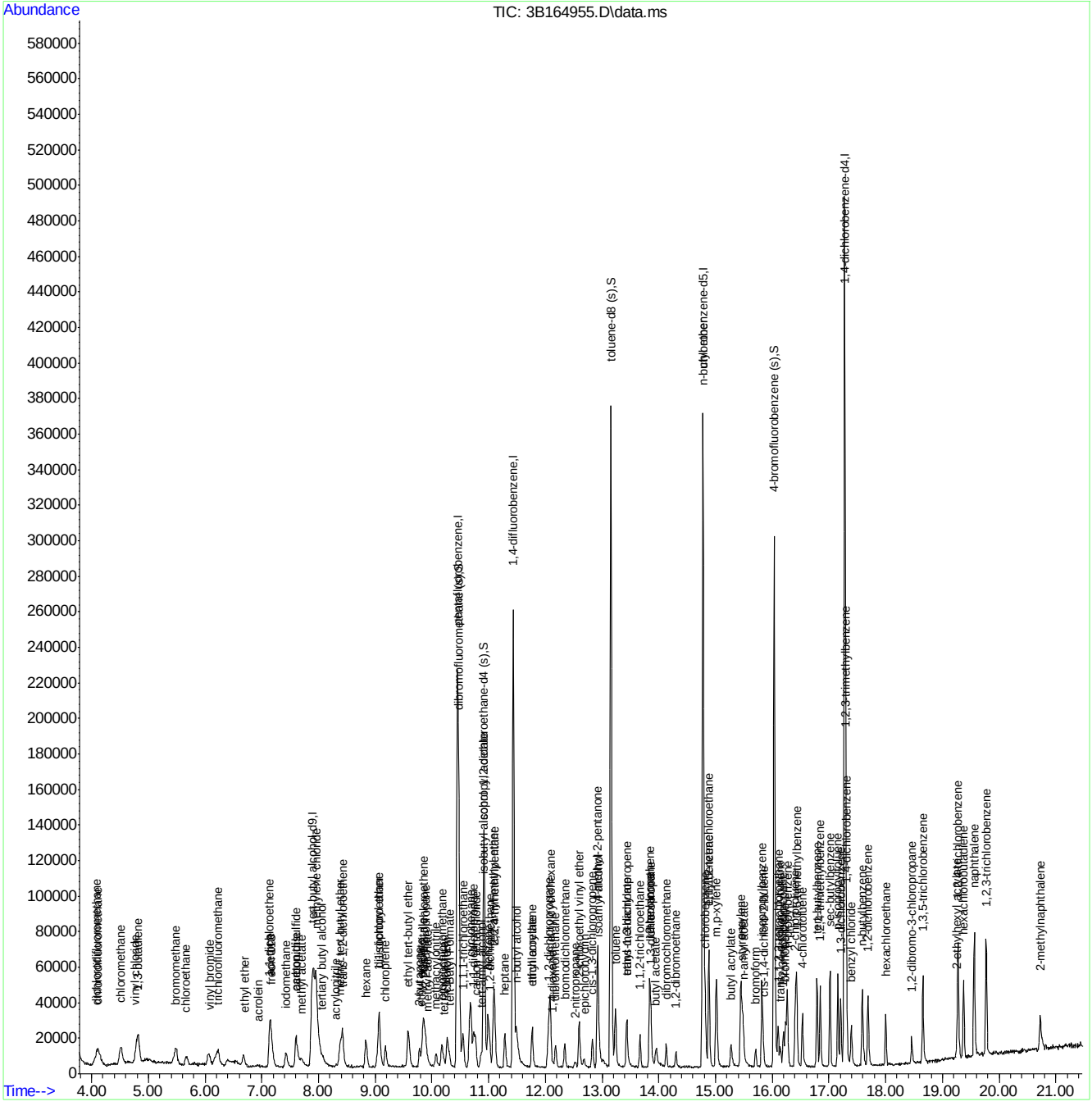
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) butyl acrylate	15.273	55	14919	3.79	ug/L		91
94) n-amyl acetate	15.487	70	4993	3.68	ug/L	#	85
95) isopropylbenzene	15.817	105	32482	3.67	ug/L		95
96) bromoform	15.707	173	5493	3.64	ug/L		92
97) cis-1,4-dichloro-2-butene	15.843	88	3684	3.86	ug/L		90
100) 1,1,2,2-tetrachloroethane	16.104	83	11146	3.89	ug/L		98
101) trans-1,4-dichloro-2-b...	16.141	53	3314	4.28	ug/L	#	63
102) 1,2,3-trichloropropane	16.199	110	2984	3.82	ug/L		95
103) bromobenzene	16.230	156	8243	3.83	ug/L		100
104) n-propylbenzene	16.267	91	36794	3.82	ug/L		98
105) 2-chlorotoluene	16.408	126	8076	3.85	ug/L		97
106) 4-chlorotoluene	16.533	91	23554	4.14	ug/L		99
107) 1,3,5-trimethylbenzene	16.429	105	27928	3.52	ug/L		94
108) tert-butylbenzene	16.790	119	24850	3.37	ug/L		95
109) 1,2,4-trimethylbenzene	16.847	105	29506	3.76	ug/L		96
110) sec-butylbenzene	17.020	105	39114	3.54	ug/L		97
111) p-isopropyltoluene	17.156	119	33660	3.57	ug/L		98
112) 1,2,3-trimethylbenzene	17.297	105	33838	3.60	ug/L		97
113) 1,3-dichlorobenzene	17.208	146	17417	4.10	ug/L		95
114) 1,4-dichlorobenzene	17.307	146	18181	4.23	ug/L		97
115) 1,2-dichlorobenzene	17.689	146	19009	3.94	ug/L		93
116) benzyl chloride	17.396	91	19571	3.79	ug/L		96
117) n-butylbenzene	17.585	92	16529	3.68	ug/L		92
118) hexachloroethane	18.008	201	5071	2.90	ug/L		88
119) 1,2-dibromo-3-chloropr...	18.458	157	4531	3.92	ug/L		93
120) 1,3,5-trichlorobenzene	18.657	180	18591	3.80	ug/L		96
121) 2-ethylhexyl acrylate	19.258	70	2065	0.60	ug/L	#	73
122) 1,2,4-trichlorobenzene	19.274	180	22046	3.92	ug/L		94
123) hexachlorobutadiene	19.373	225	8846	3.72	ug/L		91
124) naphthalene	19.556	128	66170	3.99	ug/L		98
125) 1,2,3-trichlorobenzene	19.766	180	24002	3.93	ug/L		91
126) 2-methylnaphthalene	20.723	142	15065	1.46	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164955.D
Acq On : 22 Apr 2021 8:18 pm
Operator : PrashanS
Sample : IC7429-4
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 23 17:34:17 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164956.D
Acq On : 22 Apr 2021 8:47 pm
Operator : PrashanS
Sample : IC7429-8
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 23 10:41:35 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.903	65	223769	500.00	ug/L		0.00
5) pentafluorobenzene	10.451	168	166356	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	237170	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	214212	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	136897	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.477	113	84016	49.54	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%				
54) 1,2-dichloroethane-d4 (s)	10.921	65	101434	51.95	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.90%				
75) toluene-d8 (s)	13.155	98	270205	50.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%				
99) 4-bromofluorobenzene (s)	16.031	95	111233	51.21	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.42%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.034	59	22483	37.54	ug/L		89
4) 1,4-dioxane	12.114	88	6448	177.60	ug/L		93
6) chlorodifluoromethane	4.117	51	32759	7.08	ug/L		95
7) dichlorodifluoromethane	4.091	85	42653	6.95	ug/L		83
8) chloromethane	4.519	50	42962	7.44	ug/L		97
9) vinyl chloride	4.791	62	36295	7.23	ug/L		99
10) 1,3-butadiene	4.823	54	20490	7.11	ug/L		89
11) bromomethane	5.482	94	23475	7.96	ug/L		97
12) chloroethane	5.670	64	14161	7.71	ug/L		92
13) trichlorofluoromethane	6.240	101	35800	7.35	ug/L		89
14) vinyl bromide	6.083	106	16905	7.49	ug/L		91
15) ethyl ether	6.680	74	6597	7.35	ug/L		85
16) acrolein	6.925	56	2291	6.26	ug/L		94
17) freon 113	7.176	151	17140	7.46	ug/L		87
18) 1,1-dichloroethene	7.150	96	12605	7.55	ug/L		92
19) acetone	7.140	58	9303	27.18	ug/L	#	65
20) acetonitrile	7.605	41	35810	71.05	ug/L		99
21) iodomethane	7.433	142	29402	7.34	ug/L		97
22) carbon disulfide	7.605	76	54966	7.49	ug/L		99
23) methylene chloride	7.961	84	15503	7.55	ug/L		82
24) methyl acetate	7.694	43	15129	7.37	ug/L		99
25) methyl tert butyl ether	8.385	73	57956	7.27	ug/L		99
26) trans-1,2-dichloroethene	8.426	96	12236	7.39	ug/L		92
27) hexane	8.845	56	9857	7.31	ug/L		94
28) di-isopropyl ether	9.070	45	55602	7.32	ug/L		94
29) 2-butanone	9.776	72	8175	25.49	ug/L		90
30) 1,1-dichloroethane	9.065	63	23554	7.74	ug/L		99
31) chloroprene	9.185	53	18277	6.94	ug/L		95
32) acrylonitrile	8.301	53	6077	6.73	ug/L		87
33) vinyl acetate	9.017	86	1826	5.86	ug/L	#	2
34) ethyl tert-butyl ether	9.582	59	56482	7.05	ug/L		92
35) ethyl acetate	9.812	45	2558	7.01	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164956.D
Acq On : 22 Apr 2021 8:47 pm
Operator : PrashanS
Sample : IC7429-8
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 23 10:41:35 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.880	77	27036	7.54	ug/L		96
37) cis-1,2-dichloroethene	9.849	96	13610	7.45	ug/L		87
38) propionitrile	9.839	54	28500	70.84	ug/L		98
39) methyl acrylate	9.917	85	1851	5.69	ug/L	#	12
40) methacrylonitrile	10.069	67	6251	6.82	ug/L		95
41) bromochloromethane	10.173	128	7518	7.26	ug/L		90
42) tetrahydrofuran	10.205	42	6575	7.17	ug/L		88
43) chloroform	10.268	83	24492	7.53	ug/L		97
44) tert-Butyl Formate	10.299	59	9688	6.42	ug/L		90
46) 1,1,1-trichloroethane	10.550	97	27119	7.15	ug/L		96
47) cyclohexane	10.686	84	25117	7.25	ug/L		89
48) isobutyl alcohol	10.906	43	36490	70.74	ug/L		97
49) 1,1-dichloropropene	10.733	75	16942	7.52	ug/L		96
50) carbon tetrachloride	10.770	117	23344	7.31	ug/L		93
51) tert-amyl alcohol	10.864	73	9297	35.84	ug/L	#	77
52) isopropyl acetate	10.906	87	3281	6.88	ug/L	#	82
55) n-butyl alcohol	11.486	56	33672	301.33	ug/L		98
56) 2,2,4-trimethylpentane	11.104	57	50590	6.26	ug/L		98
57) benzene	10.995	78	49097	7.62	ug/L		96
58) tert-amyl methyl ether	11.083	73	51283	7.14	ug/L		96
59) heptane	11.287	57	9076	7.04	ug/L		98
60) 1,2-dichloroethane	11.015	62	18867	7.43	ug/L		96
61) ethyl acrylate	11.763	55	19234	7.02	ug/L		90
62) trichloroethene	11.763	95	12788	7.49	ug/L		99
63) 2-chloroethyl vinyl ether	12.590	63	26863	33.99	ug/L		94
64) methyl methacrylate	12.035	100	3463	6.50	ug/L	#	82
65) methylcyclohexane	12.082	83	28296	7.20	ug/L		96
66) 1,2-dichloropropane	12.061	63	12823	7.18	ug/L		91
67) dibromomethane	12.182	93	8591	7.42	ug/L		94
68) bromodichloromethane	12.339	83	17363	7.10	ug/L		98
69) 2-nitropropane	12.527	41	4149	7.19	ug/L		94
70) epichlorohydrin	12.673	57	9089	34.82	ug/L		99
71) cis-1,3-dichloropropene	12.825	75	19579	6.99	ug/L		92
72) 4-methyl-2-pentanone	12.919	58	30496	28.92	ug/L		93
73) isoamyl alcohol	12.930	70	14124	136.82	ug/L		97
76) toluene	13.238	92	28144	7.34	ug/L		94
77) ethyl methacrylate	13.427	69	17875	7.12	ug/L		85
78) trans-1,3-dichloropropene	13.432	75	18276	7.26	ug/L		96
79) 1,1,2-trichloroethane	13.667	83	9721	7.27	ug/L		86
80) tetrachloroethene	13.835	164	10807	7.58	ug/L		92
81) 2-hexanone	13.835	58	28876	30.23	ug/L		97
82) 1,3-dichloropropane	13.861	76	18726	7.69	ug/L		94
83) butyl acetate	13.939	56	9903	6.84	ug/L		92
84) dibromochloromethane	14.133	129	13697	7.04	ug/L		96
85) 1,2-dibromoethane	14.295	107	13730	7.23	ug/L		88
86) n-butyl ether	14.776	57	53043	7.09	ug/L		93
87) chlorobenzene	14.813	112	31755	7.41	ug/L		92
88) 1,1,1,2-tetrachloroethane	14.881	131	15506	7.09	ug/L		99
89) ethylbenzene	14.881	91	54828	7.49	ug/L		99
90) m,p-xylene	15.017	106	42272	14.81	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164956.D
Acq On : 22 Apr 2021 8:47 pm
Operator : PrashanS
Sample : IC7429-8
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 23 10:41:35 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

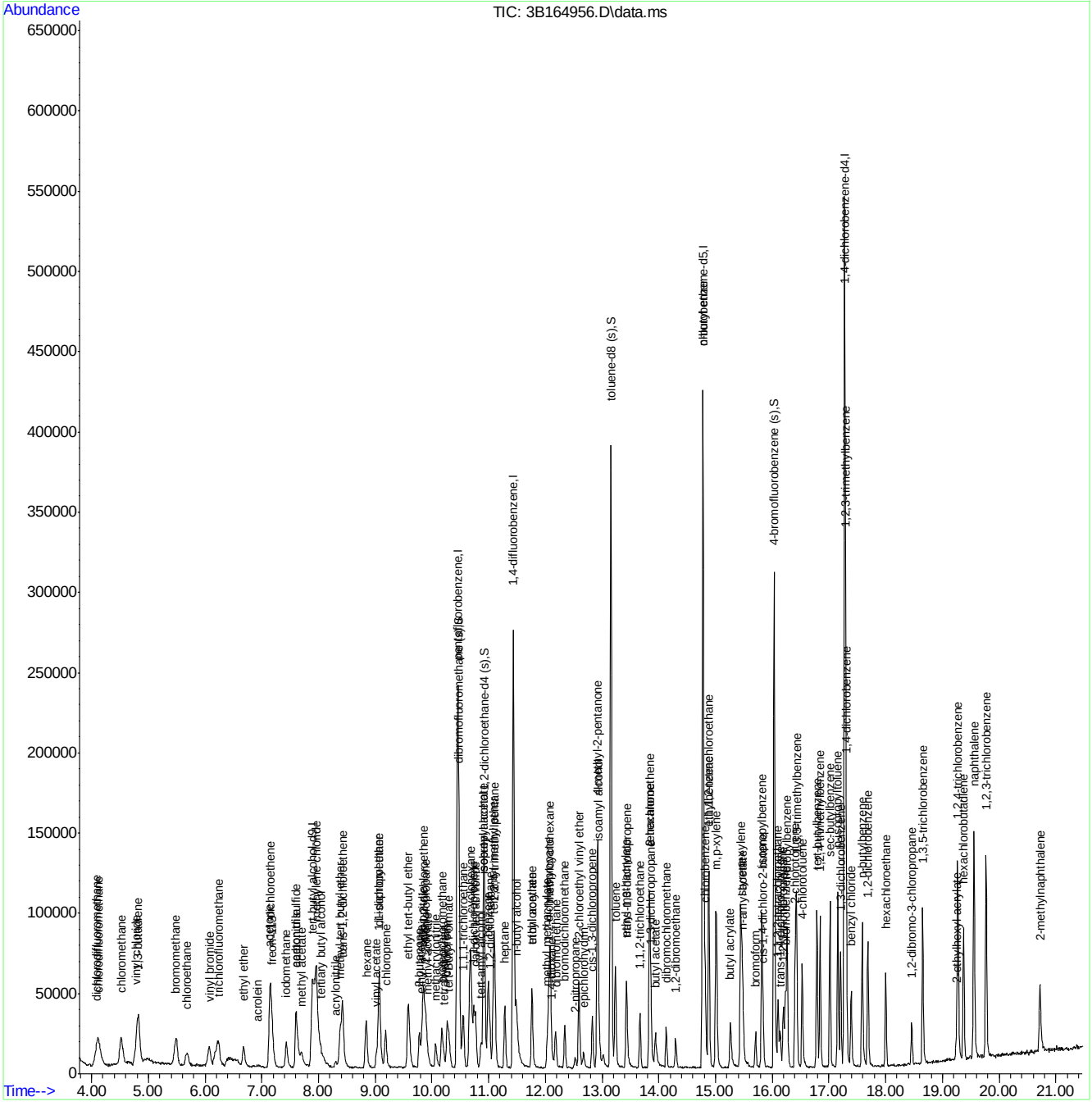
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91) o-xylene	15.440	91	48694	7.26	ug/L		95
92) styrene	15.461	104	36485	7.66	ug/L		92
93) butyl acrylate	15.257	55	27103	6.66	ug/L		98
94) n-amyl acetate	15.477	70	10141	7.22	ug/L		88
95) isopropylbenzene	15.817	105	63826	6.97	ug/L		99
96) bromoform	15.707	173	11081	7.08	ug/L		98
97) cis-1,4-dichloro-2-butene	15.838	88	6773	6.85	ug/L		91
100) 1,1,2,2-tetrachloroethane	16.099	83	20478	7.00	ug/L		97
101) trans-1,4-dichloro-2-b...	16.136	53	5279	6.66	ug/L	#	79
102) 1,2,3-trichloropropane	16.199	110	5156	6.46	ug/L		89
103) bromobenzene	16.235	156	16511	7.50	ug/L		96
104) n-propylbenzene	16.261	91	69568	7.07	ug/L		97
105) 2-chlorotoluene	16.403	126	14820	6.91	ug/L		94
106) 4-chlorotoluene	16.528	91	43962	7.55	ug/L		96
107) 1,3,5-trimethylbenzene	16.429	105	55996	6.90	ug/L		93
108) tert-butylbenzene	16.790	119	48560	6.44	ug/L		97
109) 1,2,4-trimethylbenzene	16.842	105	56735	7.07	ug/L		98
110) sec-butylbenzene	17.020	105	75108	6.65	ug/L		99
111) p-isopropyltoluene	17.156	119	65499	6.79	ug/L		98
112) 1,2,3-trimethylbenzene	17.292	105	65164	6.77	ug/L		95
113) 1,3-dichlorobenzene	17.208	146	32149	7.40	ug/L		94
114) 1,4-dichlorobenzene	17.302	146	34172	7.77	ug/L		97
115) 1,2-dichlorobenzene	17.689	146	36353	7.36	ug/L		94
116) benzyl chloride	17.391	91	36600	6.92	ug/L		93
117) n-butylbenzene	17.585	92	31606	6.88	ug/L		97
118) hexachloroethane	18.003	201	9596	5.36	ug/L		93
119) 1,2-dibromo-3-chloropr...	18.458	157	8622	7.30	ug/L		95
120) 1,3,5-trichlorobenzene	18.652	180	35171	7.03	ug/L		98
121) 2-ethylhexyl acrylate	19.248	70	4153	1.19	ug/L	#	78
122) 1,2,4-trichlorobenzene	19.274	180	41820	7.28	ug/L		95
123) hexachlorobutadiene	19.373	225	17056	7.01	ug/L		98
124) naphthalene	19.556	128	122736	7.23	ug/L		100
125) 1,2,3-trichlorobenzene	19.771	180	44582	7.14	ug/L		93
126) 2-methylnaphthalene	20.723	142	30205	2.86	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164956.D
Acq On : 22 Apr 2021 8:47 pm
Operator : PrashanS
Sample : IC7429-8
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 23 10:41:35 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164957.D
Acq On : 22 Apr 2021 9:15 pm
Operator : PrashanS
Sample : IC7429-20
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 23 10:41:39 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.909	65	223555	500.00	ug/L		0.00
5) pentafluorobenzene	10.450	168	158194	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	224672	50.00	ug/L		0.00
74) chlorobenzene-d5	14.781	117	208169	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	127681	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.477	113	79524	49.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.62%				
54) 1,2-dichloroethane-d4 (s)	10.921	65	93532	50.57	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.14%				
75) toluene-d8 (s)	13.155	98	262600	50.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%				
99) 4-bromofluorobenzene (s)	16.036	95	99864	49.29	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.039	59	61351	102.54	ug/L		97
4) 1,4-dioxane	12.119	88	18051	497.65	ug/L		92
6) chlorodifluoromethane	4.111	51	89336	20.31	ug/L		99
7) dichlorodifluoromethane	4.096	85	116984	20.03	ug/L		97
8) chloromethane	4.525	50	115182	20.97	ug/L		98
9) vinyl chloride	4.786	62	98031	20.53	ug/L		94
10) 1,3-butadiene	4.823	54	56097	20.48	ug/L		92
11) bromomethane	5.487	94	59073	21.06	ug/L		92
12) chloroethane	5.670	64	35735	20.45	ug/L		96
13) trichlorofluoromethane	6.230	101	92993	20.07	ug/L		99
14) vinyl bromide	6.068	106	43884	20.45	ug/L		95
15) ethyl ether	6.679	74	17598	20.63	ug/L		85
16) acrolein	6.920	56	6404	18.41	ug/L		94
17) freon 113	7.171	151	45288	20.74	ug/L		97
18) 1,1-dichloroethene	7.145	96	34139	21.50	ug/L		97
19) acetone	7.140	58	26955	82.81	ug/L		89
20) acetonitrile	7.600	41	97399	203.23	ug/L		97
21) iodomethane	7.433	142	78622	20.64	ug/L		99
22) carbon disulfide	7.600	76	143771	20.61	ug/L		98
23) methylene chloride	7.961	84	39935	20.45	ug/L		99
24) methyl acetate	7.694	43	38243	19.60	ug/L		91
25) methyl tert butyl ether	8.390	73	155110	20.45	ug/L		98
26) trans-1,2-dichloroethene	8.426	96	32643	20.74	ug/L		95
27) hexane	8.840	56	26017	20.28	ug/L		94
28) di-isopropyl ether	9.070	45	148312	20.54	ug/L		98
29) 2-butanone	9.771	72	24138	79.16	ug/L		93
30) 1,1-dichloroethane	9.059	63	60026	20.74	ug/L		98
31) chloroprene	9.180	53	49140	19.63	ug/L		98
32) acrylonitrile	8.280	53	16596	19.33	ug/L		89
33) vinyl acetate	9.007	86	5361	18.09	ug/L	#	89
34) ethyl tert-butyl ether	9.582	59	151305	19.87	ug/L		97
35) ethyl acetate	9.812	45	7557	21.78	ug/L	#	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164957.D
Acq On : 22 Apr 2021 9:15 pm
Operator : PrashanS
Sample : IC7429-20
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 23 10:41:39 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.886	77	70383	20.63	ug/L		99
37) cis-1,2-dichloroethene	9.849	96	36374	20.93	ug/L		96
38) propionitrile	9.833	54	78796	205.97	ug/L		94
39) methyl acrylate	9.901	85	6095	19.71	ug/L	#	81
40) methacrylonitrile	10.058	67	16660	19.12	ug/L		89
41) bromochloromethane	10.168	128	20319	20.64	ug/L		97
42) tetrahydrofuran	10.199	42	17657	20.25	ug/L		93
43) chloroform	10.267	83	64914	20.99	ug/L		96
44) tert-Butyl Formate	10.304	59	28009	19.51	ug/L		93
46) 1,1,1-trichloroethane	10.550	97	72878	20.20	ug/L		99
47) cyclohexane	10.681	84	66035	20.06	ug/L		98
48) isobutyl alcohol	10.900	43	100448	204.78	ug/L		98
49) 1,1-dichloropropene	10.733	75	45794	21.37	ug/L		97
50) carbon tetrachloride	10.770	117	61899	20.38	ug/L		94
51) tert-amyl alcohol	10.864	73	24209	98.13	ug/L		96
52) isopropyl acetate	10.906	87	9048	19.96	ug/L	#	69
55) n-butyl alcohol	11.476	56	108867	1028.43	ug/L		97
56) 2,2,4-trimethylpentane	11.104	57	146615	19.15	ug/L		97
57) benzene	10.989	78	128989	21.14	ug/L		99
58) tert-amyl methyl ether	11.089	73	141688	20.82	ug/L		99
59) heptane	11.287	57	25176	20.60	ug/L		91
60) 1,2-dichloroethane	11.015	62	50346	20.92	ug/L		96
61) ethyl acrylate	11.753	55	53287	20.52	ug/L		95
62) trichloroethene	11.763	95	33292	20.58	ug/L		97
63) 2-chloroethyl vinyl ether	12.590	63	74587	99.63	ug/L		98
64) methyl methacrylate	12.025	100	10384	20.58	ug/L	#	63
65) methylcyclohexane	12.088	83	75761	20.34	ug/L		98
66) 1,2-dichloropropane	12.061	63	34760	20.56	ug/L		98
67) dibromomethane	12.171	93	23528	21.46	ug/L		88
68) bromodichloromethane	12.339	83	47165	20.36	ug/L		99
69) 2-nitropropane	12.516	41	11772	21.53	ug/L		92
70) epichlorohydrin	12.668	57	25468	103.01	ug/L		99
71) cis-1,3-dichloropropene	12.820	75	54398	20.49	ug/L		97
72) 4-methyl-2-pentanone	12.919	58	82628	82.72	ug/L		99
73) isoamyl alcohol	12.924	70	40021	409.24	ug/L		94
76) toluene	13.233	92	74649	20.03	ug/L		96
77) ethyl methacrylate	13.421	69	50237	20.58	ug/L		97
78) trans-1,3-dichloropropene	13.432	75	49644	20.29	ug/L		96
79) 1,1,2-trichloroethane	13.667	83	26473	20.37	ug/L		95
80) tetrachloroethene	13.834	164	29488	21.29	ug/L		93
81) 2-hexanone	13.829	58	79199	85.33	ug/L		98
82) 1,3-dichloropropane	13.855	76	48982	20.70	ug/L		91
83) butyl acetate	13.929	56	28354	20.16	ug/L		93
84) dibromochloromethane	14.133	129	37848	20.03	ug/L		96
85) 1,2-dibromoethane	14.295	107	37416	20.28	ug/L		99
86) n-butyl ether	14.771	57	145760	20.05	ug/L		98
87) chlorobenzene	14.813	112	86396	20.76	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.880	131	41390	19.47	ug/L		97
89) ethylbenzene	14.880	91	147345	20.71	ug/L		99
90) m,p-xylene	15.011	106	114431	41.27	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164957.D
Acq On : 22 Apr 2021 9:15 pm
Operator : PrashanS
Sample : IC7429-20
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 23 10:41:39 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

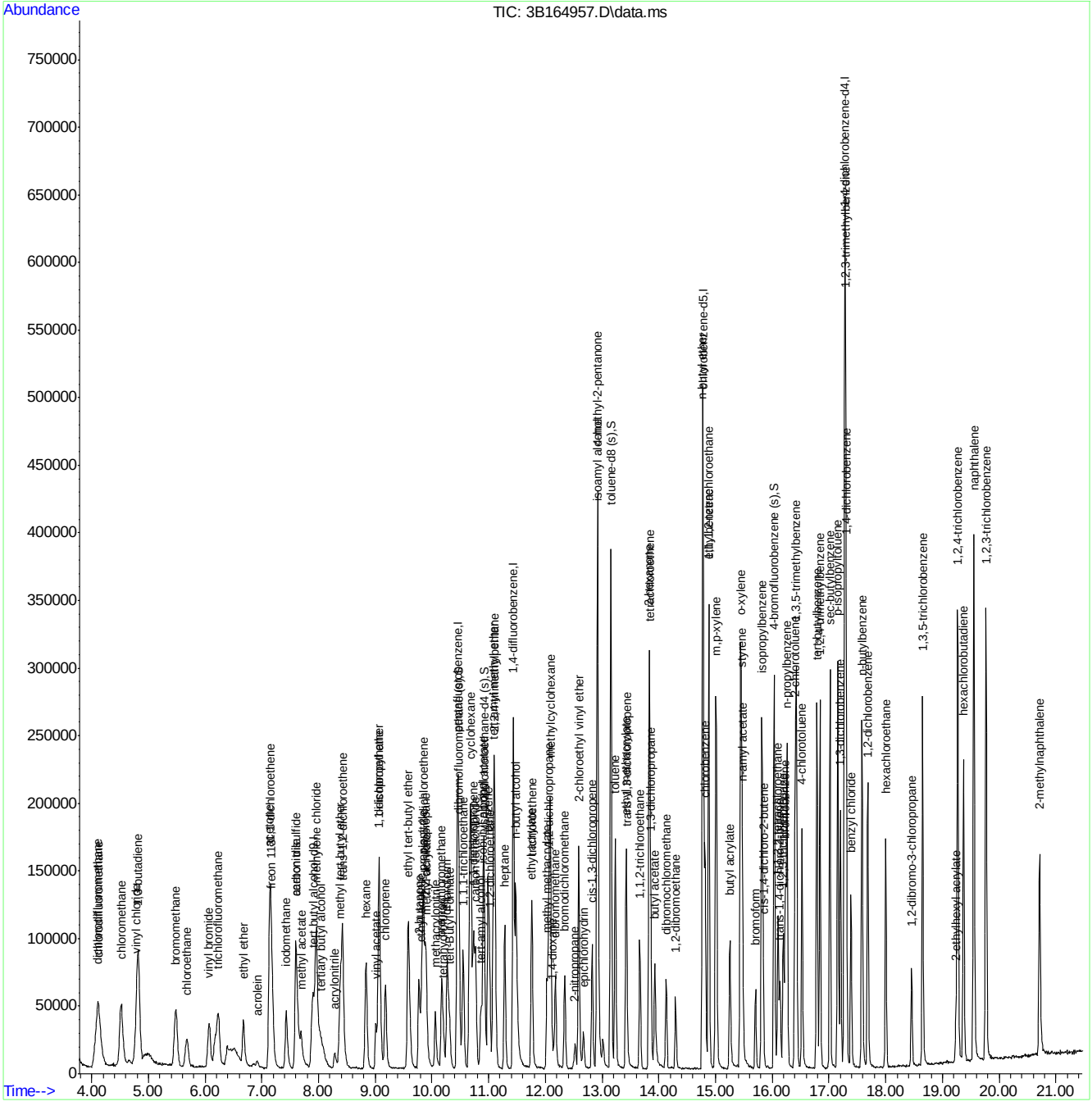
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) o-xylene	15.440	91	131463	20.18	ug/L	96
92) styrene	15.456	104	95628	20.66	ug/L	93
93) butyl acrylate	15.252	55	78510	19.85	ug/L	98
94) n-amyl acetate	15.472	70	28075	20.56	ug/L	93
95) isopropylbenzene	15.817	105	176695	19.86	ug/L	98
96) bromoform	15.707	173	30334	19.96	ug/L	96
97) cis-1,4-dichloro-2-butene	15.843	88	19679	20.48	ug/L	96
100) 1,1,2,2-tetrachloroethane	16.099	83	55950	20.49	ug/L	99
101) trans-1,4-dichloro-2-b...	16.131	53	14873	20.12	ug/L	90
102) 1,2,3-trichloropropane	16.193	110	14958	20.10	ug/L	90
103) bromobenzene	16.230	156	42323	20.62	ug/L	98
104) n-propylbenzene	16.261	91	187623	20.44	ug/L	96
105) 2-chlorotoluene	16.408	126	40880	20.44	ug/L	99
106) 4-chlorotoluene	16.523	91	112288	20.66	ug/L	99
107) 1,3,5-trimethylbenzene	16.423	105	150616	19.90	ug/L	98
108) tert-butylbenzene	16.790	119	134270	19.09	ug/L	99
109) 1,2,4-trimethylbenzene	16.842	105	151153	20.18	ug/L	99
110) sec-butylbenzene	17.020	105	209374	19.87	ug/L	99
111) p-isopropyltoluene	17.156	119	177399	19.72	ug/L	100
112) 1,2,3-trimethylbenzene	17.292	105	176437	19.66	ug/L	98
113) 1,3-dichlorobenzene	17.203	146	82129	20.26	ug/L	97
114) 1,4-dichlorobenzene	17.302	146	84010	20.49	ug/L	98
115) 1,2-dichlorobenzene	17.689	146	94120	20.44	ug/L	93
116) benzyl chloride	17.391	91	99613	20.20	ug/L	99
117) n-butylbenzene	17.579	92	85128	19.87	ug/L	99
118) hexachloroethane	18.003	201	30180	18.07	ug/L	98
119) 1,2-dibromo-3-chloropr...	18.458	157	21931	19.90	ug/L	91
120) 1,3,5-trichlorobenzene	18.651	180	93847	20.11	ug/L	97
121) 2-ethylhexyl acrylate	19.237	70	12242	3.76	ug/L	86
122) 1,2,4-trichlorobenzene	19.269	180	110276	20.58	ug/L	99
123) hexachlorobutadiene	19.373	225	46167	20.35	ug/L	98
124) naphthalene	19.556	128	330945	20.90	ug/L	98
125) 1,2,3-trichlorobenzene	19.766	180	120534	20.71	ug/L	100
126) 2-methylnaphthalene	20.712	142	93979	9.55	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164957.D
Acq On : 22 Apr 2021 9:15 pm
Operator : PrashanS
Sample : IC7429-20
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 23 10:41:39 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164958.D
Acq On : 22 Apr 2021 9:44 pm
Operator : PrashanS
Sample : ICC7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 23 10:41:42 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.903	65	233226	500.00	ug/L	0.00
5) pentafluorobenzene	10.451	168	166700	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.434	114	244091	50.00	ug/L	0.00
74) chlorobenzene-d5	14.776	117	224757	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.276	152	137210	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	10.477	113	84972	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
54) 1,2-dichloroethane-d4 (s)	10.921	65	100476	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
75) toluene-d8 (s)	13.155	98	280600	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	16.036	95	108857	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.045	59	155874	249.73	ug/L	100
4) 1,4-dioxane	12.108	88	47251	1248.65	ug/L	100
6) chlorodifluoromethane	4.122	51	231903	50.04	ug/L	100
7) dichlorodifluoromethane	4.106	85	307986	50.05	ug/L	100
8) chloromethane	4.519	50	291102	50.31	ug/L	100
9) vinyl chloride	4.786	62	252265	50.14	ug/L	100
10) 1,3-butadiene	4.823	54	144343	50.00	ug/L	100
11) bromomethane	5.482	94	147790	50.00	ug/L	100
12) chloroethane	5.675	64	92053	50.00	ug/L	100
13) trichlorofluoromethane	6.224	101	244099	50.00	ug/L	100
14) vinyl bromide	6.068	106	113057	50.00	ug/L	100
15) ethyl ether	6.674	74	44943	50.00	ug/L	100
16) acrolein	6.910	56	18325	50.00	ug/L	100
17) freon 113	7.166	151	115046	50.00	ug/L	100
18) 1,1-dichloroethene	7.145	96	83657	50.00	ug/L	100
19) acetone	7.135	58	68602	200.00	ug/L	100
20) acetonitrile	7.590	41	251742	498.46	ug/L	100
21) iodomethane	7.427	142	200658	50.00	ug/L	100
22) carbon disulfide	7.605	76	367507	50.00	ug/L	100
23) methylene chloride	7.961	84	102897	50.00	ug/L	100
24) methyl acetate	7.689	43	102785	50.00	ug/L	100
25) methyl tert butyl ether	8.395	73	399631	50.00	ug/L	100
26) trans-1,2-dichloroethene	8.426	96	82947	50.00	ug/L	100
27) hexane	8.834	56	67591	50.00	ug/L	100
28) di-isopropyl ether	9.070	45	380484	50.00	ug/L	100
29) 2-butanone	9.765	72	64098	199.47	ug/L	100
30) 1,1-dichloroethane	9.059	63	152493	50.00	ug/L	100
31) chloroprene	9.180	53	131913	50.00	ug/L	100
32) acrylonitrile	8.275	53	45230	50.00	ug/L	100
33) vinyl acetate	9.007	86	15616	50.00	ug/L	99
34) ethyl tert-butyl ether	9.582	59	401169	50.00	ug/L	100
35) ethyl acetate	9.812	45	18281	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164958.D
Acq On : 22 Apr 2021 9:44 pm
Operator : PrashanS
Sample : ICC7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 23 10:41:42 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 2,2-dichloropropane	9.880	77	179766	50.00	ug/L	100
37) cis-1,2-dichloroethene	9.844	96	91587	50.00	ug/L	100
38) propionitrile	9.828	54	201564	500.00	ug/L	100
39) methyl acrylate	9.896	85	16296	50.00	ug/L	100
40) methacrylonitrile	10.058	67	45912	50.00	ug/L	100
41) bromochloromethane	10.173	128	51865	50.00	ug/L	100
42) tetrahydrofuran	10.199	42	45948	50.00	ug/L	100
43) chloroform	10.273	83	162955	50.00	ug/L	100
44) tert-Butyl Formate	10.304	59	75639	50.00	ug/L	100
46) 1,1,1-trichloroethane	10.550	97	190107	50.00	ug/L	100
47) cyclohexane	10.681	84	173486	50.00	ug/L	100
48) isobutyl alcohol	10.900	43	268072	518.63	ug/L	100
49) 1,1-dichloropropene	10.733	75	112912	50.00	ug/L	100
50) carbon tetrachloride	10.770	117	160019	50.00	ug/L	100
51) tert-amyl alcohol	10.869	73	64989	250.00	ug/L	100
52) isopropyl acetate	10.906	87	23887	50.00	ug/L	100
55) n-butyl alcohol	11.476	56	287518	2500.00	ug/L	100
56) 2,2,4-trimethylpentane	11.110	57	415972	50.00	ug/L	100
57) benzene	10.989	78	331439	50.00	ug/L	100
58) tert-amyl methyl ether	11.089	73	369715	50.00	ug/L	100
59) heptane	11.282	57	66373	50.00	ug/L	100
60) 1,2-dichloroethane	11.015	62	130700	50.00	ug/L	100
61) ethyl acrylate	11.748	55	141048	50.00	ug/L	100
62) trichloroethene	11.763	95	87867	50.00	ug/L	100
63) 2-chloroethyl vinyl ether	12.584	63	203337	250.00	ug/L	100
64) methyl methacrylate	12.025	100	27405	50.00	ug/L	100
65) methylcyclohexane	12.088	83	202312	50.00	ug/L	100
66) 1,2-dichloropropane	12.061	63	91857	50.00	ug/L	100
67) dibromomethane	12.176	93	59545	50.00	ug/L	100
68) bromodichloromethane	12.339	83	125857	50.00	ug/L	100
69) 2-nitropropane	12.522	41	29701	50.00	ug/L	100
70) epichlorohydrin	12.668	57	67155	250.00	ug/L	100
71) cis-1,3-dichloropropene	12.820	75	144197	50.00	ug/L	100
72) 4-methyl-2-pentanone	12.914	58	217048	200.00	ug/L	100
73) isoamyl alcohol	12.924	70	106246	1000.00	ug/L	100
76) toluene	13.233	92	201175	50.00	ug/L	100
77) ethyl methacrylate	13.421	69	131784	50.00	ug/L	100
78) trans-1,3-dichloropropene	13.427	75	132092	50.00	ug/L	100
79) 1,1,2-trichloroethane	13.667	83	70174	50.00	ug/L	100
80) tetrachloroethene	13.834	164	74775	50.00	ug/L	100
81) 2-hexanone	13.824	58	200425	200.00	ug/L	100
82) 1,3-dichloropropane	13.855	76	127772	50.00	ug/L	100
83) butyl acetate	13.929	56	75922	50.00	ug/L	100
84) dibromochloromethane	14.133	129	102019	50.00	ug/L	100
85) 1,2-dibromoethane	14.295	107	99607	50.00	ug/L	100
86) n-butyl ether	14.771	57	392503	50.00	ug/L	100
87) chlorobenzene	14.813	112	224704	50.00	ug/L	100
88) 1,1,1,2-tetrachloroethane	14.881	131	114734	50.00	ug/L	100
89) ethylbenzene	14.881	91	384045	50.00	ug/L	100
90) m,p-xylene	15.011	106	299399	100.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164958.D
Acq On : 22 Apr 2021 9:44 pm
Operator : PrashanS
Sample : ICC7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 23 10:41:42 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

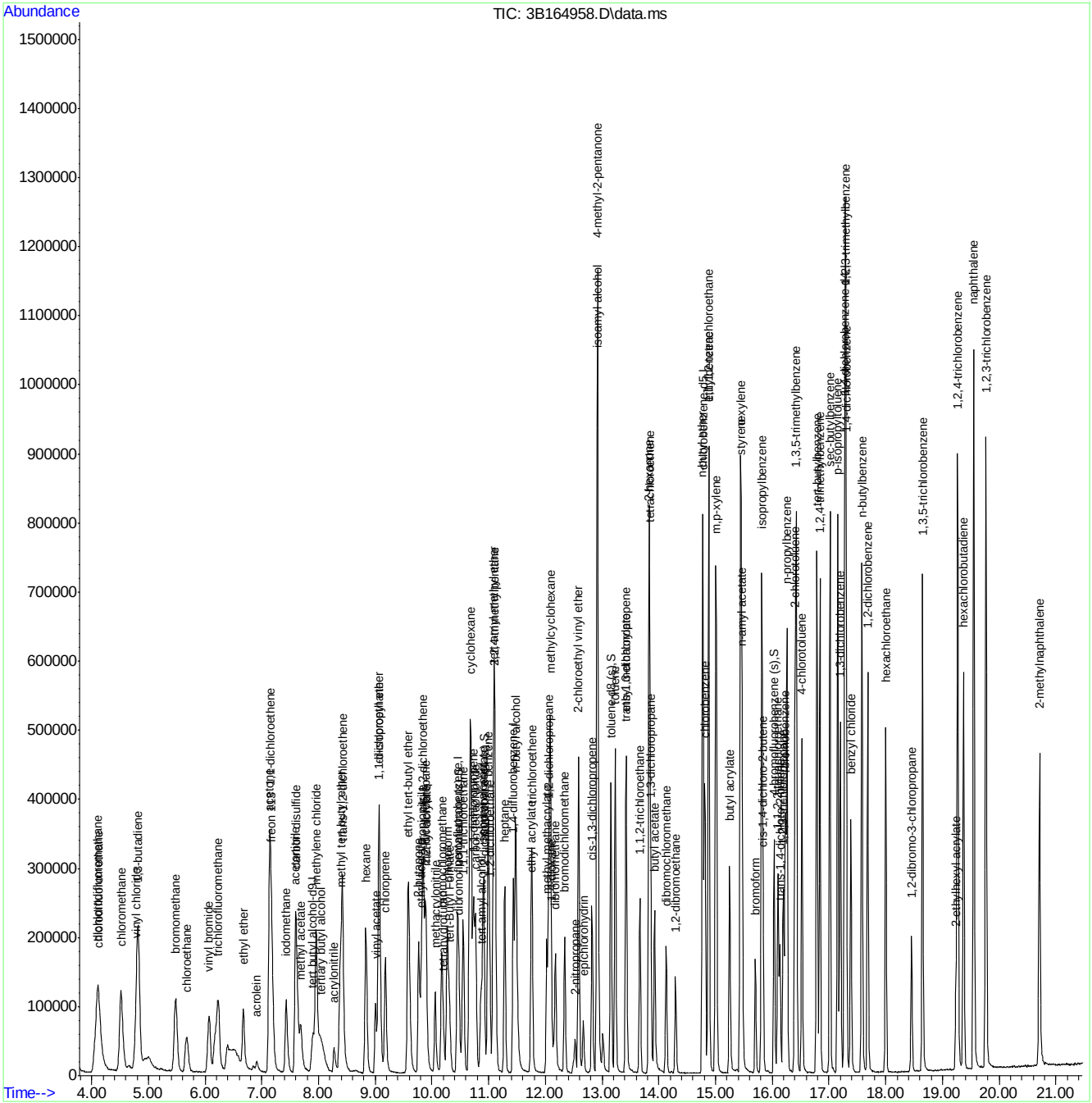
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) o-xylene	15.440	91	351699	50.00	ug/L	100
92) styrene	15.451	104	249904	50.00	ug/L	100
93) butyl acrylate	15.247	55	213546	50.00	ug/L	100
94) n-amyl acetate	15.466	70	73715	50.00	ug/L	100
95) isopropylbenzene	15.812	105	480209	50.00	ug/L	100
96) bromoform	15.702	173	82051	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	15.838	88	51869	50.00	ug/L	100
100) 1,1,2,2-tetrachloroethane	16.099	83	146698	50.00	ug/L	100
101) trans-1,4-dichloro-2-b...	16.136	53	39716	50.00	ug/L	100
102) 1,2,3-trichloropropane	16.193	110	39991	50.00	ug/L	100
103) bromobenzene	16.230	156	110287	50.00	ug/L	100
104) n-propylbenzene	16.256	91	493137	50.00	ug/L	100
105) 2-chlorotoluene	16.403	126	107467	50.00	ug/L	100
106) 4-chlorotoluene	16.523	91	291974	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	16.423	105	406640	50.00	ug/L	100
108) tert-butylbenzene	16.784	119	377964	50.00	ug/L	100
109) 1,2,4-trimethylbenzene	16.842	105	402388	50.00	ug/L	100
110) sec-butylbenzene	17.020	105	566186	50.00	ug/L	100
111) p-isopropyltoluene	17.156	119	483343	50.00	ug/L	100
112) 1,2,3-trimethylbenzene	17.286	105	482283	50.00	ug/L	100
113) 1,3-dichlorobenzene	17.203	146	217808	50.00	ug/L	100
114) 1,4-dichlorobenzene	17.302	146	220338	50.00	ug/L	100
115) 1,2-dichlorobenzene	17.684	146	247380	50.00	ug/L	100
116) benzyl chloride	17.386	91	264934	50.00	ug/L	100
117) n-butylbenzene	17.579	92	230163	50.00	ug/L	100
118) hexachloroethane	18.003	201	89751	50.00	ug/L	100
119) 1,2-dibromo-3-chloropr...	18.458	157	59222	50.00	ug/L	100
120) 1,3,5-trichlorobenzene	18.652	180	250706	50.00	ug/L	100
121) 2-ethylhexyl acrylate	19.237	70	34997	10.00	ug/L	100
122) 1,2,4-trichlorobenzene	19.269	180	287985	50.00	ug/L	100
123) hexachlorobutadiene	19.373	225	121926	50.00	ug/L	100
124) naphthalene	19.551	128	850668	50.00	ug/L	100
125) 1,2,3-trichlorobenzene	19.766	180	312719	50.00	ug/L	100
126) 2-methylnaphthalene	20.712	142	264341	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164958.D
Acq On : 22 Apr 2021 9:44 pm
Operator : PrashanS
Sample : ICC7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 23 10:41:42 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164959.D
Acq On : 22 Apr 2021 10:13 pm
Operator : PrashanS
Sample : IC7429-100
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:41:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.904	65	232081	500.00	ug/L		0.00
5) pentafluorobenzene	10.451	168	164698	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	248933	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	232543	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	135837	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.477	113	83262	49.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%				
54) 1,2-dichloroethane-d4 (s)	10.921	65	96835	47.25	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.50%				
75) toluene-d8 (s)	13.155	98	291815	50.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%				
99) 4-bromofluorobenzene (s)	16.031	95	112933	52.40	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.80%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.040	59	310319	499.62	ug/L		95
4) 1,4-dioxane	12.109	88	96540	2563.75	ug/L		98
6) chlorodifluoromethane	4.117	51	470136	102.67	ug/L		98
7) dichlorodifluoromethane	4.101	85	623209	102.51	ug/L		99
8) chloromethane	4.520	50	600939	105.11	ug/L		98
9) vinyl chloride	4.781	62	519087	104.42	ug/L		98
10) 1,3-butadiene	4.823	54	284945	99.90	ug/L		98
11) bromomethane	5.477	94	292985	100.33	ug/L		95
12) chloroethane	5.670	64	179202	98.52	ug/L		97
13) trichlorofluoromethane	6.225	101	487625	101.10	ug/L		100
14) vinyl bromide	6.068	106	224377	100.44	ug/L		98
15) ethyl ether	6.675	74	91584	103.13	ug/L		99
16) acrolein	6.915	56	35827	98.94	ug/L		96
17) freon 113	7.171	151	226168	99.49	ug/L		96
18) 1,1-dichloroethene	7.140	96	166069	100.46	ug/L		94
19) acetone	7.135	58	143103	422.27	ug/L		95
20) acetonitrile	7.590	41	490036	982.09	ug/L		99
21) iodomethane	7.428	142	397500	100.25	ug/L		98
22) carbon disulfide	7.600	76	727918	100.24	ug/L		99
23) methylene chloride	7.961	84	203167	99.92	ug/L		100
24) methyl acetate	7.689	43	205134	101.00	ug/L		99
25) methyl tert butyl ether	8.390	73	792117	100.31	ug/L		99
26) trans-1,2-dichloroethene	8.421	96	164891	100.60	ug/L		94
27) hexane	8.835	56	134657	100.82	ug/L		93
28) di-isopropyl ether	9.070	45	763832	101.60	ug/L		98
29) 2-butanone	9.766	72	130736	411.80	ug/L		99
30) 1,1-dichloroethane	9.059	63	301625	100.10	ug/L		98
31) chloroprene	9.180	53	257877	98.93	ug/L		97
32) acrylonitrile	8.270	53	89328	99.95	ug/L		97
33) vinyl acetate	9.007	86	23438	75.96	ug/L	#	82
34) ethyl tert-butyl ether	9.588	59	811751	102.40	ug/L		99
35) ethyl acetate	9.807	45	39760	110.07	ug/L	#	59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164959.D
Acq On : 22 Apr 2021 10:13 pm
Operator : PrashanS
Sample : IC7429-100
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:41:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.886	77	352217	99.16	ug/L		98
37) cis-1,2-dichloroethene	9.849	96	181059	100.05	ug/L		99
38) propionitrile	9.828	54	394077	989.43	ug/L		98
39) methyl acrylate	9.896	85	33886	105.23	ug/L	#	88
40) methacrylonitrile	10.053	67	92582	102.05	ug/L		90
41) bromochloromethane	10.174	128	103050	100.55	ug/L		97
42) tetrahydrofuran	10.194	42	88734	97.73	ug/L		97
43) chloroform	10.268	83	332380	103.22	ug/L		97
44) tert-Butyl Formate	10.304	59	125113	83.71	ug/L		98
46) 1,1,1-trichloroethane	10.550	97	387650	103.20	ug/L		99
47) cyclohexane	10.686	84	343833	100.30	ug/L		90
48) isobutyl alcohol	10.901	43	544243	1065.74	ug/L		99
49) 1,1-dichloropropene	10.733	75	220534	98.84	ug/L		97
50) carbon tetrachloride	10.765	117	319148	100.93	ug/L		99
51) tert-amyl alcohol	10.869	73	131766	513.04	ug/L		99
52) isopropyl acetate	10.901	87	48548	102.86	ug/L		94
55) n-butyl alcohol	11.476	56	591532	5043.39	ug/L		96
56) 2,2,4-trimethylpentane	11.110	57	866391	102.11	ug/L		99
57) benzene	10.989	78	673592	99.64	ug/L		99
58) tert-amyl methyl ether	11.089	73	750918	99.58	ug/L		99
59) heptane	11.282	57	130213	96.18	ug/L		98
60) 1,2-dichloroethane	11.016	62	253839	95.22	ug/L		98
61) ethyl acrylate	11.743	55	287045	99.78	ug/L		99
62) trichloroethene	11.764	95	185696	103.61	ug/L		97
63) 2-chloroethyl vinyl ether	12.585	63	430217	518.66	ug/L		99
64) methyl methacrylate	12.020	100	56945	101.87	ug/L	#	87
65) methylcyclohexane	12.088	83	398627	96.60	ug/L		99
66) 1,2-dichloropropane	12.056	63	182641	97.48	ug/L		99
67) dibromomethane	12.177	93	120612	99.31	ug/L		97
68) bromodichloromethane	12.339	83	258809	100.82	ug/L		99
69) 2-nitropropane	12.522	41	61123	100.90	ug/L		92
70) epichlorohydrin	12.663	57	137944	503.54	ug/L		97
71) cis-1,3-dichloropropene	12.820	75	298351	101.44	ug/L		98
72) 4-methyl-2-pentanone	12.914	58	429933	388.46	ug/L		99
73) isoamyl alcohol	12.919	70	215056	1984.76	ug/L	#	91
76) toluene	13.233	92	417168	100.21	ug/L		97
77) ethyl methacrylate	13.416	69	271522	99.57	ug/L		99
78) trans-1,3-dichloropropene	13.427	75	268520	98.24	ug/L		95
79) 1,1,2-trichloroethane	13.662	83	142741	98.30	ug/L		97
80) tetrachloroethene	13.835	164	153270	99.06	ug/L		93
81) 2-hexanone	13.824	58	411888	397.25	ug/L		97
82) 1,3-dichloropropane	13.856	76	254512	96.26	ug/L		96
83) butyl acetate	13.924	56	150640	95.89	ug/L		97
84) dibromochloromethane	14.128	129	214705	101.70	ug/L		96
85) 1,2-dibromoethane	14.295	107	208744	101.28	ug/L		100
86) n-butyl ether	14.771	57	809907	99.72	ug/L		99
87) chlorobenzene	14.813	112	464377	99.87	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.881	131	233061	98.17	ug/L		96
89) ethylbenzene	14.876	91	787509	99.10	ug/L		99
90) m,p-xylene	15.006	106	621665	200.69	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164959.D
Acq On : 22 Apr 2021 10:13 pm
Operator : PrashanS
Sample : IC7429-100
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:41:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

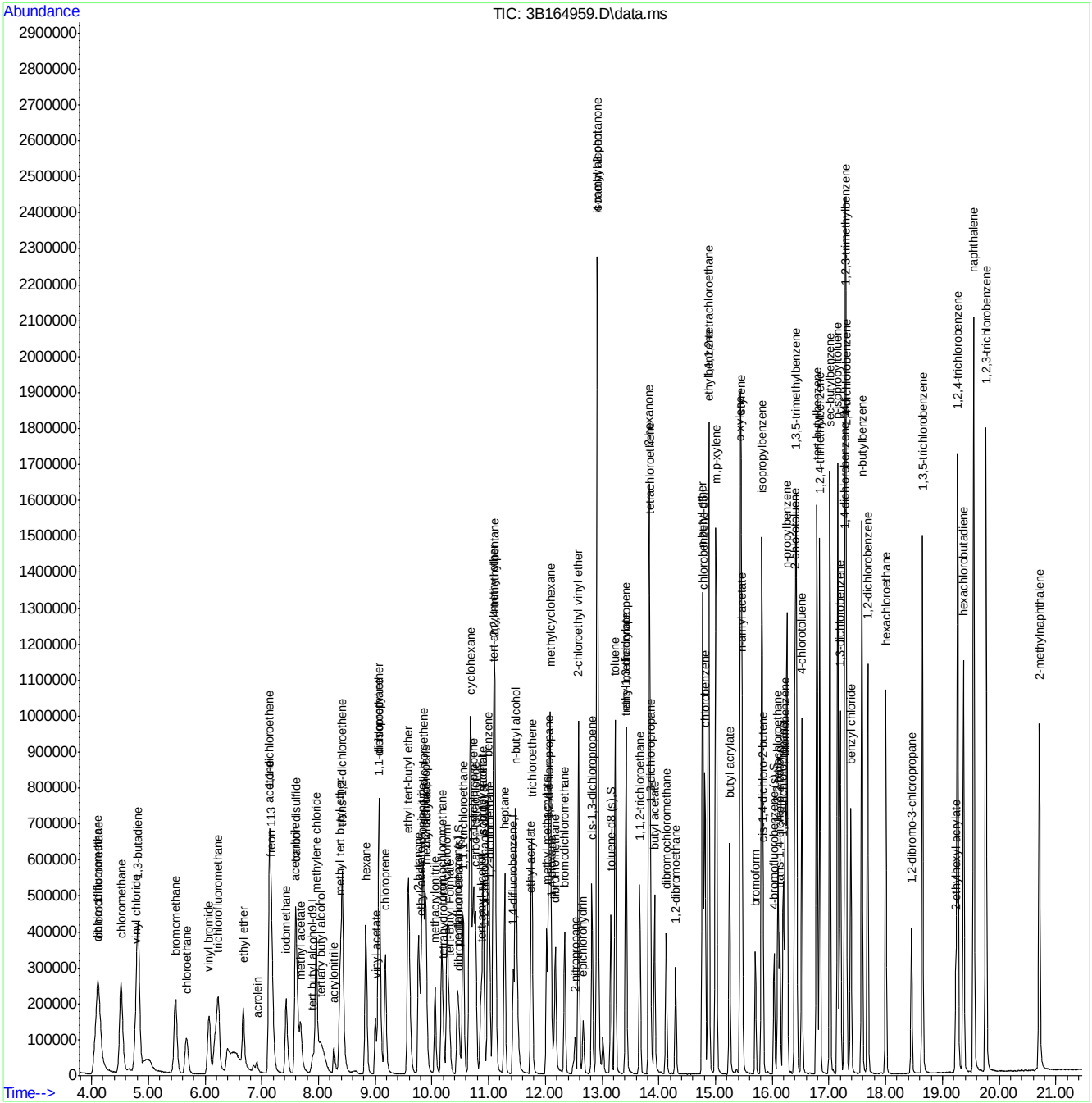
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) o-xylene	15.435	91	740825	101.79	ug/L	96
92) styrene	15.451	104	511396	98.89	ug/L	97
93) butyl acrylate	15.247	55	434227	98.27	ug/L	99
94) n-amyl acetate	15.467	70	146392	95.97	ug/L	98
95) isopropylbenzene	15.812	105	1003979	101.04	ug/L	98
96) bromoform	15.702	173	170918	100.67	ug/L	99
97) cis-1,4-dichloro-2-butene	15.838	88	100753	93.87	ug/L	95
100) 1,1,2,2-tetrachloroethane	16.099	83	289925	99.82	ug/L	99
101) trans-1,4-dichloro-2-b...	16.131	53	80134	101.90	ug/L	89
102) 1,2,3-trichloropropane	16.194	110	80950	102.23	ug/L	95
103) bromobenzene	16.230	156	227624	104.24	ug/L	98
104) n-propylbenzene	16.256	91	996596	102.07	ug/L	99
105) 2-chlorotoluene	16.403	126	221203	103.96	ug/L	95
106) 4-chlorotoluene	16.523	91	597016	103.27	ug/L	99
107) 1,3,5-trimethylbenzene	16.424	105	826477	102.65	ug/L	98
108) tert-butylbenzene	16.785	119	798124	106.65	ug/L	99
109) 1,2,4-trimethylbenzene	16.837	105	838238	105.21	ug/L	100
110) sec-butylbenzene	17.015	105	1196075	106.69	ug/L	99
111) p-isopropyltoluene	17.156	119	1017646	106.34	ug/L	99
112) 1,2,3-trimethylbenzene	17.287	105	984463	103.09	ug/L	98
113) 1,3-dichlorobenzene	17.203	146	434202	100.68	ug/L	98
114) 1,4-dichlorobenzene	17.302	146	429317	98.41	ug/L	100
115) 1,2-dichlorobenzene	17.684	146	501571	102.40	ug/L	98
116) benzyl chloride	17.386	91	533076	101.62	ug/L	99
117) n-butylbenzene	17.580	92	470446	103.23	ug/L	98
118) hexachloroethane	18.003	201	192344	108.24	ug/L	98
119) 1,2-dibromo-3-chloropr...	18.453	157	118501	101.06	ug/L	96
120) 1,3,5-trichlorobenzene	18.647	180	501100	100.95	ug/L	98
121) 2-ethylhexyl acrylate	19.238	70	75648	21.83	ug/L	95
122) 1,2,4-trichlorobenzene	19.269	180	569589	99.89	ug/L	98
123) hexachlorobutadiene	19.374	225	248511	102.94	ug/L	97
124) naphthalene	19.551	128	1697107	100.76	ug/L	98
125) 1,2,3-trichlorobenzene	19.766	180	622380	100.52	ug/L	98
126) 2-methylnaphthalene	20.707	142	559022	53.40	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164959.D
Acq On : 22 Apr 2021 10:13 pm
Operator : PrashanS
Sample : IC7429-100
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:41:48 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



M3B7429.M Mon Apr 26 14:19:01 2021 RPT1 Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164960.D
Acq On : 22 Apr 2021 10:41 pm
Operator : PrashanS
Sample : IC7429-200
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 23 10:41:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.903	65	240886	500.00	ug/L		0.00
5) pentafluorobenzene	10.445	168	170362	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	257637	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	249722	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	149556	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.471	113	85374	49.16	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.32%				
54) 1,2-dichloroethane-d4 (s)	10.916	65	99017	46.68	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.36%				
75) toluene-d8 (s)	13.155	98	317764	50.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.92%				
99) 4-bromofluorobenzene (s)	16.031	95	123486	52.04	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.08%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.034	59	621004	963.27	ug/L		95
4) 1,4-dioxane	12.108	88	201423	5153.53	ug/L		95
6) chlorodifluoromethane	4.106	51	894428	188.84	ug/L		98
7) dichlorodifluoromethane	4.096	85	1170952	186.21	ug/L		96
8) chloromethane	4.509	50	1155684	195.42	ug/L		98
9) vinyl chloride	4.776	62	991310	192.79	ug/L		97
10) 1,3-butadiene	4.812	54	526187	178.35	ug/L		98
11) bromomethane	5.466	94	533461	176.60	ug/L		96
12) chloroethane	5.654	64	331607	176.25	ug/L		99
13) trichlorofluoromethane	6.219	101	918710	184.14	ug/L		99
14) vinyl bromide	6.062	106	428606	185.48	ug/L		99
15) ethyl ether	6.669	74	176993	192.68	ug/L		97
16) acrolein	6.904	56	73217	195.48	ug/L		90
17) freon 113	7.166	151	426991	181.59	ug/L		99
18) 1,1-dichloroethene	7.135	96	320957	187.71	ug/L		95
19) acetone	7.124	58	249330	711.26	ug/L		98
20) acetonitrile	7.579	41	964030	1867.80	ug/L		99
21) iodomethane	7.422	142	776022	189.21	ug/L		99
22) carbon disulfide	7.595	76	1387655	184.73	ug/L		99
23) methylene chloride	7.956	84	396280	188.42	ug/L		97
24) methyl acetate	7.678	43	407461	193.95	ug/L		98
25) methyl tert butyl ether	8.390	73	1575794	192.92	ug/L		99
26) trans-1,2-dichloroethene	8.416	96	315451	186.06	ug/L		95
27) hexane	8.829	56	258833	187.35	ug/L		93
28) di-isopropyl ether	9.070	45	1488354	191.38	ug/L		96
29) 2-butanone	9.760	72	250351	762.35	ug/L		95
30) 1,1-dichloroethane	9.059	63	574675	184.38	ug/L		97
31) chloroprene	9.174	53	486399	180.40	ug/L		97
32) acrylonitrile	8.264	53	178262	192.83	ug/L		96
33) vinyl acetate	8.997	86	63829	199.99	ug/L	#	85
34) ethyl tert-butyl ether	9.582	59	1626887	198.41	ug/L		99
35) ethyl acetate	9.807	45	77886	208.45	ug/L	#	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164960.D
Acq On : 22 Apr 2021 10:41 pm
Operator : PrashanS
Sample : IC7429-200
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 23 10:41:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.886	77	685069	186.45	ug/L		100
37) cis-1,2-dichloroethene	9.844	96	351844	187.95	ug/L		99
38) propionitrile	9.823	54	781086	1895.91	ug/L		98
39) methyl acrylate	9.891	85	68091	204.43	ug/L	#	88
40) methacrylonitrile	10.048	67	183255	195.28	ug/L		93
41) bromochloromethane	10.168	128	202728	191.24	ug/L		99
42) tetrahydrofuran	10.194	42	176470	187.90	ug/L		97
43) chloroform	10.267	83	633405	190.17	ug/L		99
44) tert-Butyl Formate	10.299	59	314784	203.61	ug/L		97
46) 1,1,1-trichloroethane	10.550	97	761921	196.09	ug/L		99
47) cyclohexane	10.681	84	666802	188.05	ug/L		93
48) isobutyl alcohol	10.900	43	1076307	2037.55	ug/L		99
49) 1,1-dichloropropene	10.728	75	432745	187.51	ug/L		97
50) carbon tetrachloride	10.770	117	619008	189.26	ug/L		95
51) tert-amyl alcohol	10.869	73	269708	1015.21	ug/L		97
52) isopropyl acetate	10.900	87	97048	198.77	ug/L		96
55) n-butyl alcohol	11.476	56	1215386	10012.27	ug/L		98
56) 2,2,4-trimethylpentane	11.110	57	1763304	200.81	ug/L		99
57) benzene	10.989	78	1312346	187.57	ug/L		98
58) tert-amyl methyl ether	11.089	73	1516969	194.37	ug/L		99
59) heptane	11.277	57	255059	182.04	ug/L		98
60) 1,2-dichloroethane	11.015	62	489584	177.45	ug/L		98
61) ethyl acrylate	11.742	55	594292	199.59	ug/L		99
62) trichloroethene	11.763	95	350436	188.93	ug/L		98
63) 2-chloroethyl vinyl ether	12.584	63	889101	1035.66	ug/L		98
64) methyl methacrylate	12.020	100	117887	203.77	ug/L	#	82
65) methylcyclohexane	12.082	83	795583	186.28	ug/L		98
66) 1,2-dichloropropane	12.056	63	366955	189.24	ug/L		99
67) dibromomethane	12.171	93	240888	191.64	ug/L		93
68) bromodichloromethane	12.339	83	523901	197.19	ug/L		99
69) 2-nitropropane	12.522	41	132478	211.29	ug/L		94
70) epichlorohydrin	12.663	57	288023	1015.86	ug/L		96
71) cis-1,3-dichloropropene	12.820	75	606191	199.14	ug/L		97
72) 4-methyl-2-pentanone	12.914	58	848326	740.59	ug/L		97
73) isoamyl alcohol	12.919	70	441372	3935.82	ug/L		93
76) toluene	13.233	92	859938	192.36	ug/L		99
77) ethyl methacrylate	13.416	69	559001	190.89	ug/L		97
78) trans-1,3-dichloropropene	13.427	75	549693	187.27	ug/L		94
79) 1,1,2-trichloroethane	13.662	83	298834	191.64	ug/L		98
80) tetrachloroethene	13.834	164	307427	185.02	ug/L		92
81) 2-hexanone	13.824	58	823970	740.02	ug/L		100
82) 1,3-dichloropropane	13.855	76	517773	182.36	ug/L		97
83) butyl acetate	13.923	56	314430	186.37	ug/L		99
84) dibromochloromethane	14.127	129	449513	198.28	ug/L		98
85) 1,2-dibromoethane	14.295	107	433138	195.69	ug/L		99
86) n-butyl ether	14.771	57	1675149	192.06	ug/L		99
87) chlorobenzene	14.813	112	954761	191.21	ug/L		97
88) 1,1,1,2-tetrachloroethane	14.881	131	467301	183.29	ug/L		96
89) ethylbenzene	14.875	91	1584674	185.69	ug/L		99
90) m,p-xylene	15.006	106	1269416	381.60	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164960.D
Acq On : 22 Apr 2021 10:41 pm
Operator : PrashanS
Sample : IC7429-200
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 23 10:41:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration

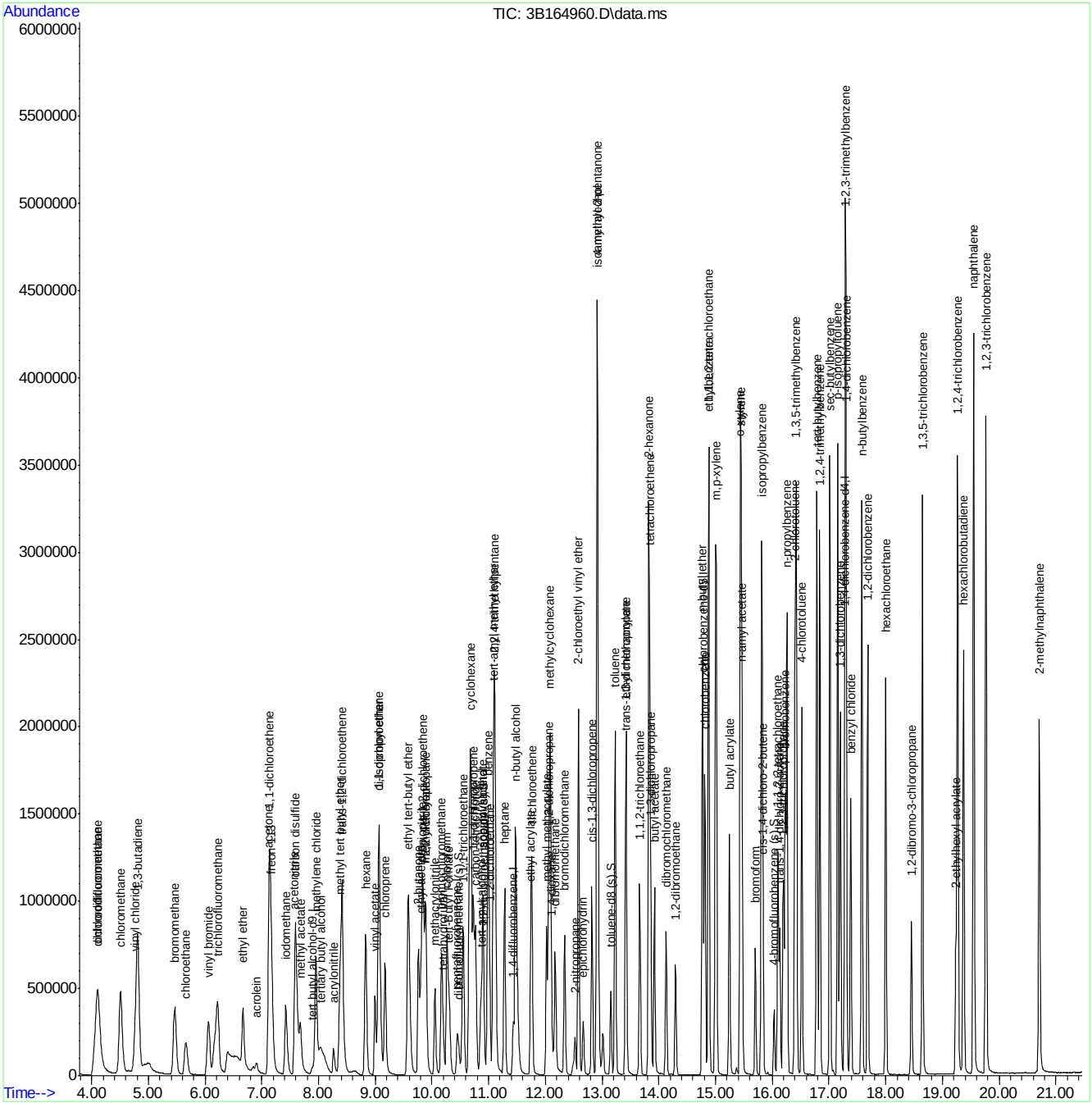
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	o-xylene	15.435	91	1501767	192.16	ug/L	96
92)	styrene	15.451	104	1054594	189.91	ug/L	94
93)	butyl acrylate	15.247	55	910113	191.79	ug/L	99
94)	n-amyl acetate	15.466	70	305323	186.39	ug/L	96
95)	isopropylbenzene	15.812	105	2048629	191.98	ug/L	98
96)	bromoform	15.702	173	362986	199.08	ug/L	99
97)	cis-1,4-dichloro-2-butene	15.838	88	207953	180.42	ug/L	94
100)	1,1,2,2-tetrachloroethane	16.099	83	637047	199.20	ug/L	99
101)	trans-1,4-dichloro-2-b...	16.131	53	163774	189.16	ug/L	92
102)	1,2,3-trichloropropane	16.193	110	168447	193.22	ug/L	98
103)	bromobenzene	16.230	156	477759	198.72	ug/L	97
104)	n-propylbenzene	16.256	91	2064558	192.05	ug/L	98
105)	2-chlorotoluene	16.403	126	463321	197.77	ug/L	96
106)	4-chlorotoluene	16.523	91	1272038	199.85	ug/L	98
107)	1,3,5-trimethylbenzene	16.423	105	1733022	195.50	ug/L	100
108)	tert-butylbenzene	16.784	119	1681626	204.09	ug/L	99
109)	1,2,4-trimethylbenzene	16.837	105	1751667	199.69	ug/L	98
110)	sec-butylbenzene	17.014	105	2532385	205.17	ug/L	99
111)	p-isopropyltoluene	17.150	119	2149118	203.97	ug/L	99
112)	1,2,3-trimethylbenzene	17.286	105	2083729	198.19	ug/L	97
113)	1,3-dichlorobenzene	17.203	146	917464	193.23	ug/L	100
114)	1,4-dichlorobenzene	17.302	146	909166	189.28	ug/L	98
115)	1,2-dichlorobenzene	17.684	146	1067771	198.00	ug/L	98
116)	benzyl chloride	17.386	91	1167242	202.10	ug/L	99
117)	n-butylbenzene	17.579	92	1016589	202.61	ug/L	97
118)	hexachloroethane	18.003	201	418444	213.87	ug/L	94
119)	1,2-dibromo-3-chloropr...	18.453	157	264112	204.58	ug/L	98
120)	1,3,5-trichlorobenzene	18.646	180	1098821	201.05	ug/L	97
121)	2-ethylhexyl acrylate	19.237	70	185363	48.59	ug/L	91
122)	1,2,4-trichlorobenzene	19.269	180	1194357	190.25	ug/L	99
123)	hexachlorobutadiene	19.373	225	528185	198.72	ug/L	97
124)	naphthalene	19.551	128	3504148	188.96	ug/L	99
125)	1,2,3-trichlorobenzene	19.766	180	1274037	186.89	ug/L	98
126)	2-methylnaphthalene	20.707	142	1147799	99.59	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164960.D
Acq On : 22 Apr 2021 10:41 pm
Operator : PrashanS
Sample : IC7429-200
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 23 10:41:53 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:31:36 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164963.D
Acq On : 23 Apr 2021 12:08 am
Operator : PrashanS
Sample : ICV7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 26 09:29:18 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.898	65	232395	500.00	ug/L		0.00
5) pentafluorobenzene	10.450	168	169374	50.00	ug/L		0.00
53) 1,4-difluorobenzene	11.434	114	247809	50.00	ug/L		0.00
74) chlorobenzene-d5	14.776	117	226451	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	17.276	152	140183	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	10.471	113	84378	49.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%				
54) 1,2-dichloroethane-d4 (s)	10.921	65	98137	47.84	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.68%				
75) toluene-d8 (s)	13.155	98	286991	50.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.72%				
99) 4-bromofluorobenzene (s)	16.036	95	113305	51.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.14%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.039	59	156120	253.79	ug/L		96
4) 1,4-dioxane	12.108	88	46840	1295.87	ug/L		94
7) dichlorodifluoromethane	4.101	85	242056	40.50	ug/L		96
8) chloromethane	4.514	50	239741	39.92	ug/L		96
9) vinyl chloride	4.776	62	235931	47.60	ug/L		98
10) 1,3-butadiene	4.823	54	146535	50.72	ug/L		97
11) bromomethane	5.476	94	152172	49.50	ug/L		92
12) chloroethane	5.665	64	87270	47.18	ug/L		96
13) trichlorofluoromethane	6.224	101	225885	46.89	ug/L		99
14) vinyl bromide	6.062	106	119894	50.85	ug/L		100
15) ethyl ether	6.674	74	47555	54.06	ug/L		94
16) acrolein	6.910	56	21368	64.10	ug/L		98
17) freon 113	7.161	151	104075	45.74	ug/L		97
18) 1,1-dichloroethene	7.134	96	85649	51.60	ug/L		92
19) acetone	7.134	58	57872	175.19	ug/L		93
21) iodomethane	7.427	142	199367	51.31	ug/L		99
22) carbon disulfide	7.600	76	365747	50.04	ug/L		99
23) methylene chloride	7.956	84	103696	50.60	ug/L		93
24) methyl acetate	7.684	43	101829	50.45	ug/L		98
25) methyl tert butyl ether	8.395	73	814039	101.71	ug/L		99
26) trans-1,2-dichloroethene	8.421	96	82617	47.65	ug/L		95
27) hexane	8.834	56	67578	50.96	ug/L		91
28) di-isopropyl ether	9.070	45	374279	50.18	ug/L		99
29) 2-butanone	9.765	72	65088	218.42	ug/L		91
30) 1,1-dichloroethane	9.059	63	161422	53.00	ug/L		98
31) chloroprene	9.180	53	142628	57.21	ug/L		97
33) vinyl acetate	9.007	86	13983	50.12	ug/L		97
34) ethyl tert-butyl ether	9.582	59	395829	51.30	ug/L		98
35) ethyl acetate	9.807	45	19129	52.42	ug/L	#	63
36) 2,2-dichloropropane	9.886	77	175185	47.16	ug/L		98
37) cis-1,2-dichloroethene	9.844	96	96180	49.63	ug/L		98
38) propionitrile	9.828	54	212532	561.62	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164963.D
Acq On : 23 Apr 2021 12:08 am
Operator : PrashanS
Sample : ICV7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 26 09:29:18 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) methyl acrylate	9.896	85	16518	49.81	ug/L	#	75
40) methacrylonitrile	10.058	67	46551	52.58	ug/L		95
41) bromochloromethane	10.168	128	54273	53.11	ug/L		95
42) tetrahydrofuran	10.199	42	47089	52.52	ug/L		96
43) chloroform	10.267	83	180394	51.95	ug/L		99
44) tert-Butyl Formate	10.304	59	71602	51.23	ug/L		97
46) 1,1,1-trichloroethane	10.550	97	191302	51.80	ug/L		99
47) cyclohexane	10.681	84	183389	53.60	ug/L		95
48) isobutyl alcohol	10.900	43	268966	524.49	ug/L		99
49) 1,1-dichloropropene	10.733	75	116246	52.26	ug/L		98
50) carbon tetrachloride	10.770	117	160081	51.44	ug/L		96
51) tert-amyl alcohol	10.864	73	69531	254.15	ug/L		98
52) isopropyl acetate	10.900	87	24117	52.86	ug/L	#	88
55) n-butyl alcohol	11.476	56	284341	2619.12	ug/L		98
56) 2,2,4-trimethylpentane	11.109	57	407695	52.29	ug/L		99
57) benzene	10.989	78	344025	52.06	ug/L		99
58) tert-amyl methyl ether	11.089	73	358899	48.85	ug/L		99
59) heptane	11.287	57	63617	50.29	ug/L		96
60) 1,2-dichloroethane	11.015	62	128368	48.52	ug/L		99
61) ethyl acrylate	11.748	55	146802	54.44	ug/L		100
62) trichloroethene	11.763	95	91058	51.57	ug/L		98
63) 2-chloroethyl vinyl ether	12.584	63	233692	300.44	ug/L		97
64) methyl methacrylate	12.025	100	28322	52.15	ug/L	#	72
65) methylcyclohexane	12.082	83	195464	49.67	ug/L		98
66) 1,2-dichloropropane	12.056	63	90964	49.78	ug/L		98
67) dibromomethane	12.171	93	60540	50.38	ug/L		93
68) bromodichloromethane	12.339	83	128143	51.26	ug/L		97
69) 2-nitropropane	12.522	41	31528	51.82	ug/L		95
70) epichlorohydrin	12.663	57	74175	284.12	ug/L		95
71) cis-1,3-dichloropropene	12.820	75	142395	50.93	ug/L		99
72) 4-methyl-2-pentanone	12.914	58	226506	222.29	ug/L		98
73) isoamyl alcohol	12.924	70	109222	1107.36	ug/L		98
76) toluene	13.233	92	207821	54.42	ug/L		96
77) ethyl methacrylate	13.416	69	132087	53.64	ug/L		98
78) trans-1,3-dichloropropene	13.426	75	136507	55.08	ug/L		97
79) 1,1,2-trichloroethane	13.662	83	71995	53.28	ug/L		98
81) 2-hexanone	13.824	58	206819	217.68	ug/L		96
82) 1,3-dichloropropane	13.855	76	128832	51.31	ug/L		96
83) butyl acetate	13.923	56	79026	56.23	ug/L		94
84) dibromochloromethane	14.127	129	107630	55.07	ug/L		97
85) 1,2-dibromoethane	14.295	107	105349	55.68	ug/L		99
86) n-butyl ether	14.771	57	406991	55.03	ug/L		99
87) chlorobenzene	14.812	112	230129	52.67	ug/L		97
88) 1,1,1,2-tetrachloroethane	14.880	131	116946	53.86	ug/L		97
89) ethylbenzene	14.875	91	397826	52.46	ug/L		98
90) m,p-xylene	15.006	106	308630	106.54	ug/L		97
91) o-xylene	15.440	91	363889	53.40	ug/L		97
92) styrene	15.451	104	258635	53.54	ug/L		96
93) butyl acrylate	15.247	55	220763	54.25	ug/L		98
94) n-amyl acetate	15.466	70	75164	54.57	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164963.D
Acq On : 23 Apr 2021 12:08 am
Operator : PrashanS
Sample : ICV7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 26 09:29:18 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration

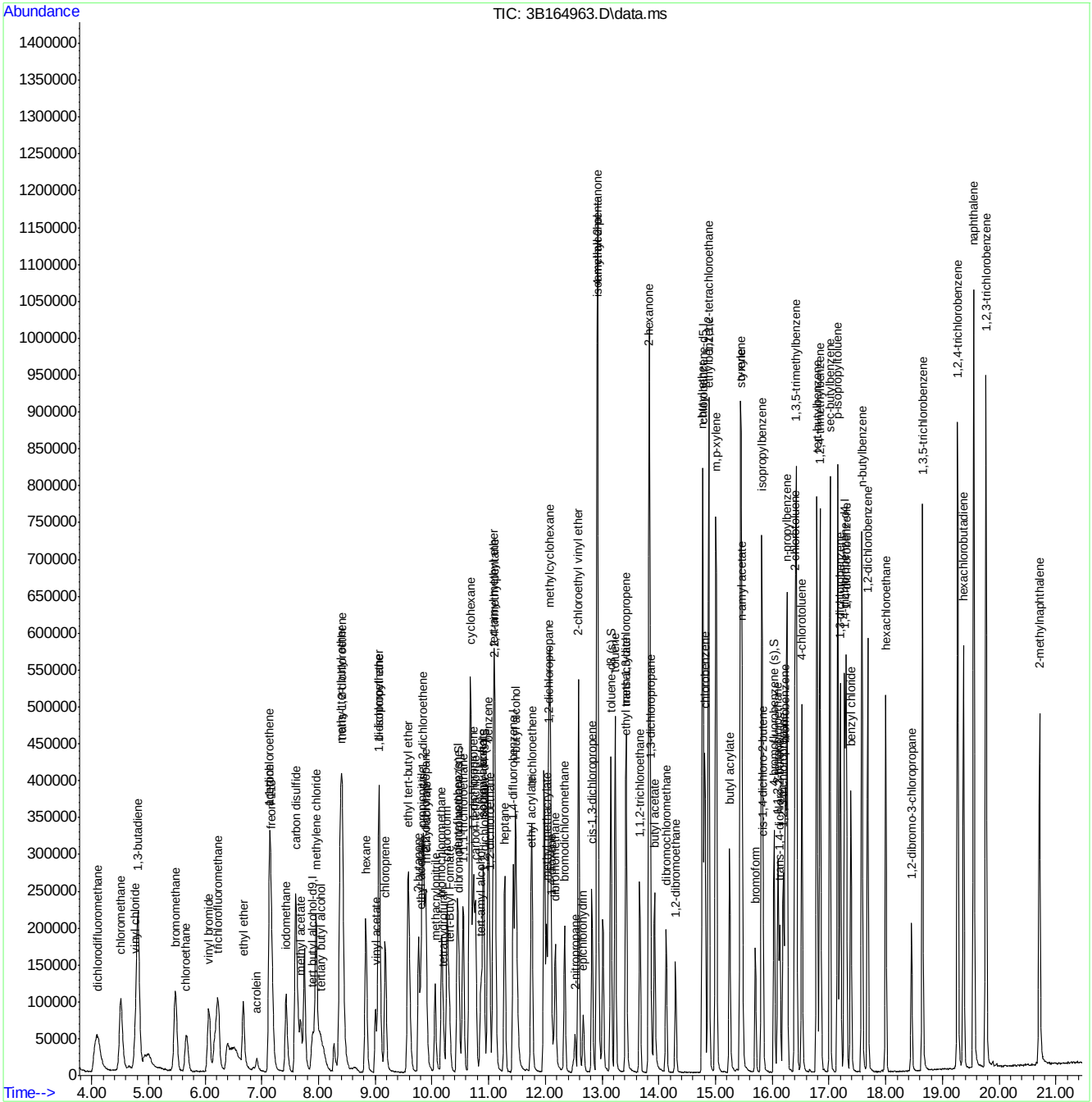
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) isopropylbenzene	15.811	105	489096	54.38	ug/L	99
96) bromoform	15.702	173	85090	54.70	ug/L	100
97) cis-1,4-dichloro-2-butene	15.838	88	52248	53.32	ug/L	97
100) 1,1,2,2-tetrachloroethane	16.099	83	150692	52.72	ug/L	98
101) trans-1,4-dichloro-2-b...	16.131	53	43166	54.34	ug/L	90
102) 1,2,3-trichloropropane	16.193	110	42382	54.71	ug/L	94
103) bromobenzene	16.230	156	116714	52.73	ug/L	99
104) n-propylbenzene	16.261	91	505291	53.99	ug/L	98
105) 2-chlorotoluene	16.402	126	109430	52.47	ug/L	94
106) 4-chlorotoluene	16.523	91	301845	52.13	ug/L	100
107) 1,3,5-trimethylbenzene	16.423	105	417027	53.87	ug/L	98
108) tert-butylbenzene	16.784	119	385578	55.05	ug/L	99
109) 1,2,4-trimethylbenzene	16.842	105	406559	53.37	ug/L	98
110) sec-butylbenzene	17.014	105	577539	53.42	ug/L	99
111) p-isopropyltoluene	17.156	119	489100	52.98	ug/L	99
113) 1,3-dichlorobenzene	17.203	146	229135	53.08	ug/L	100
114) 1,4-dichlorobenzene	17.302	146	232909	51.41	ug/L	99
115) 1,2-dichlorobenzene	17.684	146	253418	51.85	ug/L	97
116) benzyl chloride	17.386	91	282370	55.25	ug/L	98
117) n-butylbenzene	17.579	92	235697	53.77	ug/L	97
118) hexachloroethane	18.003	201	90523	47.58	ug/L	97
119) 1,2-dibromo-3-chloropr...	18.453	157	58765	49.07	ug/L	97
120) 1,3,5-trichlorobenzene	18.651	180	254374	51.36	ug/L	99
122) 1,2,4-trichlorobenzene	19.269	180	290327	51.76	ug/L	99
123) hexachlorobutadiene	19.373	225	120412	50.59	ug/L	100
124) naphthalene	19.551	128	875236	53.04	ug/L	99
125) 1,2,3-trichlorobenzene	19.766	180	322554	52.60	ug/L	99
126) 2-methylnaphthalene	20.712	142	283344	28.80	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164963.D
Acq On : 23 Apr 2021 12:08 am
Operator : PrashanS
Sample : ICV7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 26 09:29:18 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 26 09:28:47 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164964.D
Acq On : 23 Apr 2021 12:37 am
Operator : PrashanS
Sample : ICV7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 23 17:36:47 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:43:13 2021
Response via : Initial Calibration

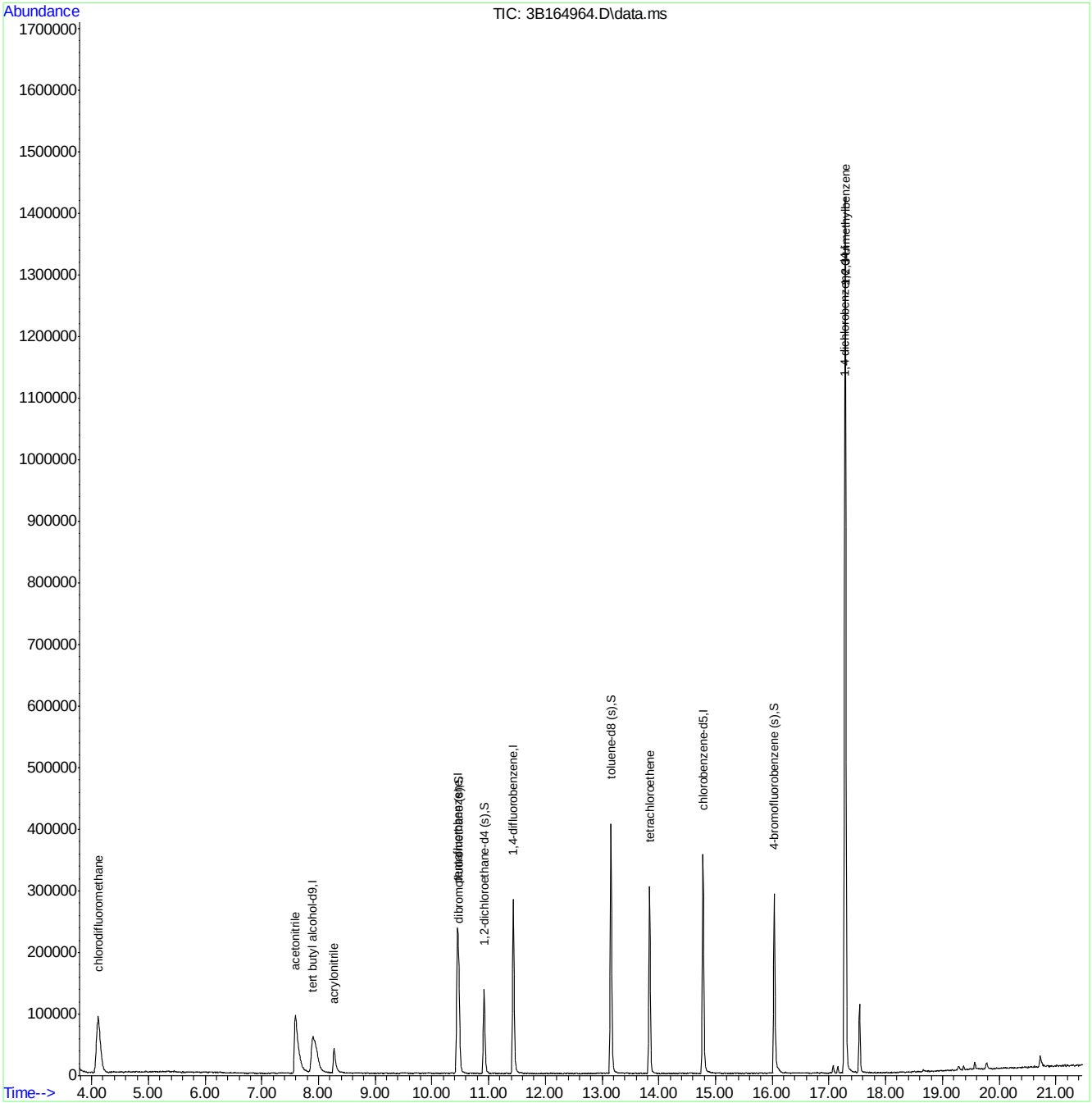
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.903	65	244178	500.00	ug/L	0.00
5) pentafluorobenzene	10.451	168	174555	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.434	114	251390	50.00	ug/L	0.00
74) chlorobenzene-d5	14.776	117	222182	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.276	152	145279	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	10.477	113	88023	50.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.54%			
54) 1,2-dichloroethane-d4 (s)	10.921	65	103751	49.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.70%			
75) toluene-d8 (s)	13.155	98	281571	50.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.72%			
99) 4-bromofluorobenzene (s)	16.036	95	111754	48.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.22%			
Target Compounds						Qvalue
6) chlorodifluoromethane	4.111	51	321389	67.85	ug/L	95
20) acetonitrile	7.595	41	264416	520.95	ug/L	98
32) acrylonitrile	8.275	53	48337	55.15	ug/L	95
80) tetrachloroethene	13.835	164	76032	51.55	ug/L	95
112) 1,2,3-trimethylbenzene	17.286	105	651183	68.28	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B7429\
Data File : 3B164964.D
Acq On : 23 Apr 2021 12:37 am
Operator : PrashanS
Sample : ICV7429-50
Misc : MS49876,V3B7429,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 23 17:36:47 2021
Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:43:13 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166485.d
Acq On : 9 Aug 2021 9:16 am
Operator : jons2
Sample : cc7429-20 Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:25:49 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:43:13 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.903	65	221822	500.00	ug/L	0.00
5) pentafluorobenzene	10.451	168	186416	50.00	ug/L	0.00
53) 1,4-difluorobenzene	11.434	114	271204	50.00	ug/L	0.00
74) chlorobenzene-d5	14.776	117	253123	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	17.271	152	166200	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	10.472	113	95242	50.94	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.88%			
54) 1,2-dichloroethane-d4 (s)	10.916	65	102024	45.44	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.88%			
75) toluene-d8 (s)	13.155	98	300538	47.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.36%			
99) 4-bromofluorobenzene (s)	16.031	95	116299	44.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.44%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.039	59	61544	104.81	ug/L	99
4) 1,4-dioxane	12.109	88	21579	625.46	ug/L	97
6) chlorodifluoromethane	4.112	51	93667	18.52	ug/L	99
7) dichlorodifluoromethane	4.112	85	92427	14.05	ug/L	95
8) chloromethane	4.514	50	109390	16.55	ug/L	95
9) vinyl chloride	4.786	62	99817	18.30	ug/L	93
10) 1,3-butadiene	4.833	54	54145	17.03	ug/L	92
11) bromomethane	5.492	94	78787	23.28	ug/L	91
12) chloroethane	5.702	64	42301	20.78	ug/L	79
13) trichlorofluoromethane	6.219	101	106387	20.07	ug/L	97
15) ethyl ether	6.669	74	19617	20.26	ug/L	85
16) acrolein	6.910	56	8245	22.47	ug/L	96
17) freon 113	7.171	151	56757	22.66	ug/L	93
18) 1,1-dichloroethene	7.145	96	39620	21.69	ug/L	88
19) acetone	7.129	58	31051	85.40	ug/L #	73
20) acetonitrile	7.611	41	102167	188.48	ug/L	87
21) iodomethane	7.428	142	97100	22.71	ug/L	100
22) carbon disulfide	7.600	76	158848	19.75	ug/L	97
23) methylene chloride	7.956	84	49887	22.12	ug/L	95
24) methyl acetate	7.689	43	37189	16.74	ug/L	81
25) methyl tert butyl ether	8.385	73	169757	19.27	ug/L	95
26) trans-1,2-dichloroethene	8.421	96	40739	21.35	ug/L	98
27) hexane	8.840	56	26621	18.24	ug/L	95
28) di-isopropyl ether	9.075	45	159997	19.49	ug/L	93
29) 2-butanone	9.771	72	26963	82.21	ug/L #	77
30) 1,1-dichloroethane	9.059	63	72856	21.74	ug/L	98
31) chloroprene	9.180	53	51422	18.74	ug/L	90
32) acrylonitrile	8.285	53	18164	19.41	ug/L	81
33) vinyl acetate	9.012	86	7643	24.89	ug/L #	40
34) ethyl tert-butyl ether	9.577	59	168224	19.81	ug/L	98
35) ethyl acetate	9.813	45	7656	19.06	ug/L #	42
36) 2,2-dichloropropane	9.886	77	87097	21.30	ug/L	91
37) cis-1,2-dichloroethene	9.844	96	45065	21.13	ug/L	99
38) propionitrile	9.828	54	84533	202.96	ug/L	94
39) methyl acrylate	9.901	85	6465	19.22	ug/L #	85
40) methacrylonitrile	10.053	67	18831	19.33	ug/L #	76
41) bromochloromethane	10.173	128	26498	23.56	ug/L #	81
42) tetrahydrofuran	10.200	42	16912	17.14	ug/L	77
43) chloroform	10.268	83	73236	19.16	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166485.d
Acq On : 9 Aug 2021 9:16 am
Operator : jons2
Sample : cc7429-20 Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:25:49 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:43:13 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tert-Butyl Formate	10.294	59	56092	36.46	ug/L		93
46) 1,1,1-trichloroethane	10.545	97	85141	20.95	ug/L		98
47) cyclohexane	10.681	84	77615	20.61	ug/L		82
48) isobutyl alcohol	10.895	43	104454	185.07	ug/L		94
49) 1,1-dichloropropene	10.733	75	49717	20.31	ug/L		98
50) carbon tetrachloride	10.764	117	77838	22.73	ug/L		95
51) tert-amyl alcohol	10.864	73	28037	93.11	ug/L		92
52) isopropyl acetate	10.906	87	10381	20.67	ug/L	#	53
55) n-butyl alcohol	11.470	56	113484	955.15	ug/L		89
56) 2,2,4-trimethylpentane	11.104	57	158419	18.57	ug/L		97
57) benzene	10.989	78	148021	20.47	ug/L		97
58) tert-amyl methyl ether	11.089	73	171998	21.39	ug/L		99
59) heptane	11.282	57	23612	17.06	ug/L		98
60) 1,2-dichloroethane	11.010	62	56442	19.49	ug/L		94
61) ethyl acrylate	11.753	55	54767	18.56	ug/L		93
62) trichloroethene	11.758	95	38470	19.91	ug/L		97
63) 2-chloroethyl vinyl ether	12.585	63	144468	169.71	ug/L		91
64) methyl methacrylate	12.020	100	11218	18.88	ug/L	#	80
65) methylcyclohexane	12.082	83	83135	19.30	ug/L		92
66) 1,2-dichloropropane	12.051	63	40391	20.20	ug/L		96
67) dibromomethane	12.171	93	28749	21.86	ug/L		97
68) bromodichloromethane	12.339	83	57187	20.90	ug/L		92
69) 2-nitropropane	12.522	41	14149	21.25	ug/L		88
70) epichlorohydrin	12.668	57	28002	98.01	ug/L		92
71) cis-1,3-dichloropropene	12.820	75	65777	21.50	ug/L		85
72) 4-methyl-2-pentanone	12.909	58	96311	86.37	ug/L	#	83
73) isoamyl alcohol	12.924	70	49797	461.32	ug/L		94
76) toluene	13.233	92	88423	20.71	ug/L		98
77) ethyl methacrylate	13.416	69	53078	19.28	ug/L		93
78) trans-1,3-dichloropropene	13.427	75	58558	21.14	ug/L		91
79) 1,1,2-trichloroethane	13.662	83	31616	20.93	ug/L		91
80) tetrachloroethene	13.829	164	34700	20.65	ug/L		90
81) 2-hexanone	13.824	58	87015	81.93	ug/L		97
82) 1,3-dichloropropane	13.855	76	60140	21.43	ug/L		93
83) butyl acetate	13.929	56	29848	19.00	ug/L		92
84) dibromochloromethane	14.127	129	48393	22.15	ug/L		95
85) 1,2-dibromoethane	14.295	107	44213	20.91	ug/L		99
86) n-butyl ether	14.771	57	158353	19.16	ug/L		95
87) chlorobenzene	14.807	112	105828	21.67	ug/L		93
88) 1,1,1,2-tetrachloroethane	14.881	131	56000	23.07	ug/L		93
89) ethylbenzene	14.875	91	172370	20.34	ug/L		97
90) m,p-xylene	15.011	106	137319	42.41	ug/L		98
91) o-xylene	15.435	91	154781	20.32	ug/L		96
92) styrene	15.451	104	116735	21.62	ug/L		94
93) butyl acrylate	15.252	55	85632	18.83	ug/L		97
94) n-amyl acetate	15.466	70	37986	24.67	ug/L	#	82
95) isopropylbenzene	15.812	105	210958	20.98	ug/L		98
96) bromoform	15.702	173	45355	26.08	ug/L		99
97) cis-1,4-dichloro-2-butene	15.838	88	23844	21.77	ug/L		93
100) 1,1,2,2-tetrachloroethane	16.099	83	71143	20.99	ug/L		100
101) trans-1,4-dichloro-2-b...	16.131	53	17936	19.05	ug/L		85
102) 1,2,3-trichloropropane	16.188	110	19229	20.94	ug/L		98
103) bromobenzene	16.230	156	56452	21.51	ug/L		93
104) n-propylbenzene	16.256	91	222817	20.08	ug/L		95
105) 2-chlorotoluene	16.403	126	53021	21.44	ug/L	#	79
106) 4-chlorotoluene	16.523	91	133604	19.46	ug/L		97
107) 1,3,5-trimethylbenzene	16.424	105	177836	19.38	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166485.d
Acq On : 9 Aug 2021 9:16 am
Operator : jons2
Sample : cc7429-20 Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:25:49 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:43:13 2021
Response via : Initial Calibration

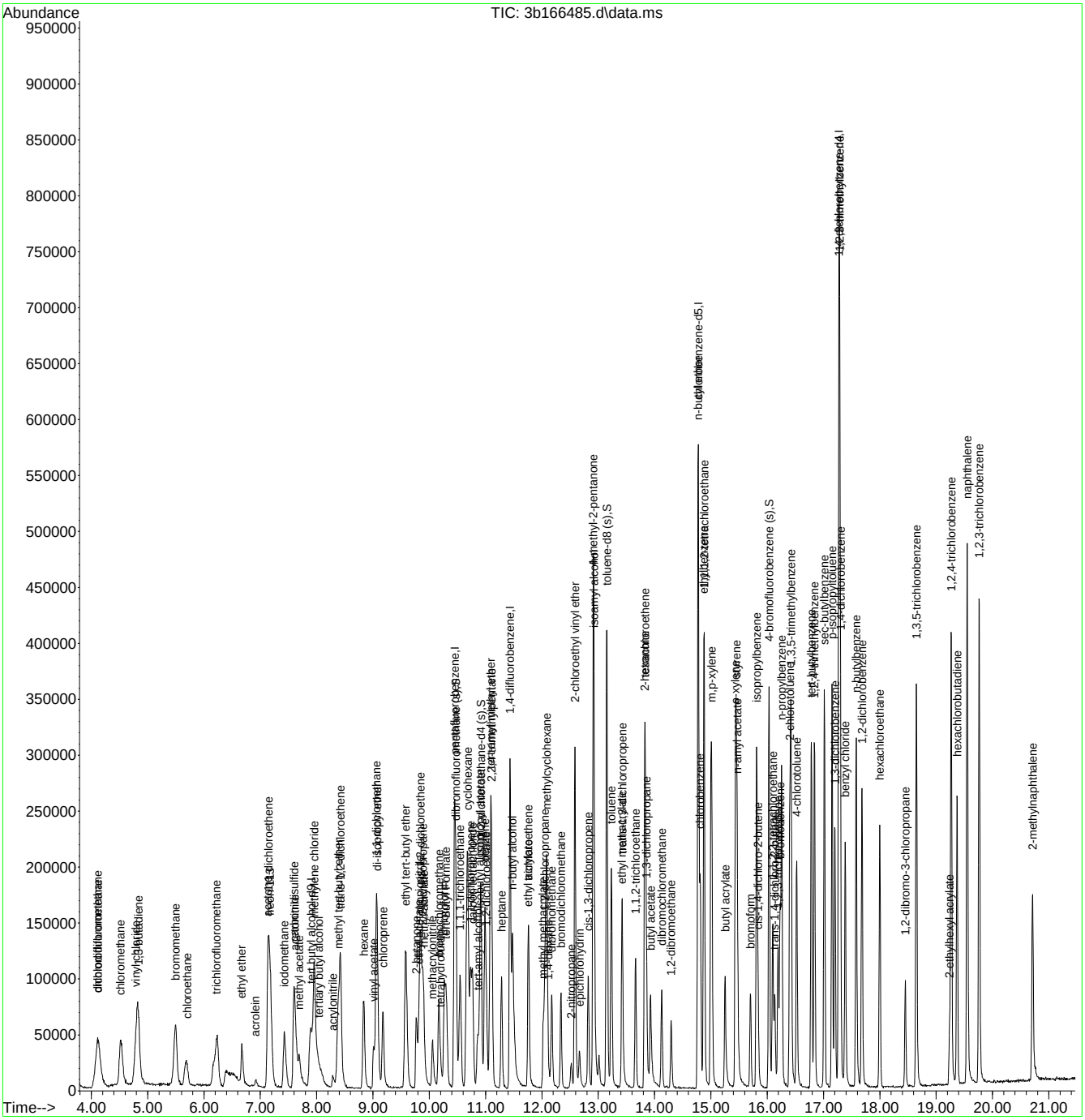
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	16.784	119	163959	19.74	ug/L	97
109) 1,2,4-trimethylbenzene	16.837	105	180914	20.03	ug/L	94
110) sec-butylbenzene	17.015	105	248228	19.37	ug/L	96
111) p-isopropyltoluene	17.151	119	215959	19.73	ug/L	97
112) 1,2,3-trimethylbenzene	17.287	105	210553	19.30	ug/L	94
113) 1,3-dichlorobenzene	17.203	146	109808	21.46	ug/L	99
114) 1,4-dichlorobenzene	17.302	146	115895	21.58	ug/L	99
115) 1,2-dichlorobenzene	17.684	146	128634	22.20	ug/L	91
116) benzyl chloride	17.386	91	164764	27.19	ug/L	100
117) n-butylbenzene	17.579	92	104002	20.01	ug/L	98
118) hexachloroethane	17.998	201	44504	20.49	ug/L	94
119) 1,2-dibromo-3-chloropr...	18.453	157	30433	21.43	ug/L	97
120) 1,3,5-trichlorobenzene	18.646	180	133688	22.77	ug/L	98
121) 2-ethylhexyl acrylate	19.237	70	12888	3.17	ug/L	87
122) 1,2,4-trichlorobenzene	19.269	180	149609	22.50	ug/L	96
123) hexachlorobutadiene	19.373	225	57971	20.54	ug/L	95
124) naphthalene	19.551	128	422439	21.59	ug/L	99
125) 1,2,3-trichlorobenzene	19.766	180	157988	21.73	ug/L	97
126) 2-methylnaphthalene	20.712	142	109838	9.42	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kristelv\2021\august 2021\08112021\v3b7507\
Data File : 3b166485.d
Acq On : 9 Aug 2021 9:16 am
Operator : jons2
Sample : cc7429-20 Inst : MS3B
Misc : MS52680,V3B7507,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B7429.M
Quant Results File: M3B7429.RES
Quant Time: Aug 10 12:25:49 2021
Quant Title : SW846 8260D, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Apr 23 10:43:13 2021
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standard	ABK: V021-2718-90.17	EC: V021-2718-94.8	AA: V021-2718-70.6	Ext. PA: V021-2718-96.1	Column	Rxi-624(60mx0.25mmx1.4 um)
Standard Concentration	100-10,000ppm	100ppm	100ppm	100-1,000ppm	Method	V8260D
Expiration Date	8/23/2021	8/2/2021	8/8/2021	8/27/2021	Init Calib Date	7/29/2021
Standard	Ext. ABK: V021-2718-95.3	Ext. EC: V021-2718-91.8	Ext. Acrolein: V021-2718-87.3	Ext. Chlorodifluoromethane:		
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Analysis Date	7/29/2021
Expiration Date	8/27/2021	7/30/2021	8/22/2021	7/29/2021	Sequence loaded by	Prashant B. Shukla
					Data processed by	Bridget Kelly
					Batch ID	V1A9178
Internal Surrogate	V021-2718-75				Matrix	AQ
I/S Concentration	50/500ppm				Approved By:	KANYAV
Expiration Date	8/15/2021		Initial Calibration Method	M1A9178	Approved Date:	8/3/2021 8:07:23 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
1A	212454	IB		NA			5			1	ok	
1A	212455	BFB		NA			5			2	ok	7/29/2021; 9:41AM
1A	212456	NO DATA FILE		NA			5			3	ok	Analyst mistakenly skipped data file.
1A	212457	IC9178-0.2		NA		8260/624 AQ ICC	5			4	ok	1uL ABK, EC, AA/500mL DI H2O.
1A	212458	IC9178-0.5		NA		8260/624 AQ ICC	5			5	ok	1uL ABK, EC, AA/200mL DI H2O.
1A	212459	IC9178-1		NA		8260/624 AQ ICC	5			6	ok	1uL ABK, EC, AA/100mL DI H2O.
1A	212460	IC9178-2		NA		8260/624 AQ ICC	5			7	ok	2uL ABK, EC, AA/100mL DI H2O.
1A	212461	IC9178-4		NA		8260/624 AQ ICC	5			8	ok	4uL ABK, EC, AA/100mL DI H2O.
1A	212462	IC9178-8		NA		8260/624 AQ ICC	5			9	ok	8uL ABK, EC, AA/100mL DI H2O.
1A	212463	IC9178-20		NA		8260/624 AQ ICC	5			10	ok	20uL ABK, EC, AA/100mL DI H2O.
1A	212464	ICC9178-50		NA		8260/624 AQ ICC	5			11	ok	50uL ABK, EC, AA/100mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
1A	212465	IC9178-100		NA		8260/624 AQ ICC	5			12	ok	100uL ABK, EC, AA/100mL DI H2O.
1A	212466	IC9178-200		NA		8260/624 AQ ICC	5			13	ok	200uL ABK, EC, AA/100mL DI H2O.
1A	212467	IB		NA			5			14	ok	
1A	212468	IB		NA			5			15	ok	
1A	212469	ICV9178-50		NA		8260/624 AQ ICC	5			16	ok	50uL Ext. ABK, Ext. EC, Ext. Acrolein/100mL DI H2O.
1A	212470	ICV9178-50		NA		8260/624 AQ ICC	5			17	ok	50uL Ext. PA, Ext. Chlorodifluoromethane/100mL DI H2O.
1A	212471	IB		NA			5			18	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standard	ABK: V021-2718-90.42	EC: V021-2718-100.9	AA: V021-2718-70.6		Column	Rxi-624(60mx0.25mmx1.4 um)
Standard Concentration	100-10,000ppm	100ppm	100ppm		Method	v8260d
Expiration Date	8/23/2021	8/6/2021	8/8/2021		Init Calib Date	7/29/2021
Internal Surrogate	V021-2718-75					
I/S Concentration	50/500ppm				Analysis Date	8/6/2021
Expiration Date	8/15/2021				Sequence loaded by	Edward Durner
					Data processed by	kristelv/davem1
					Batch ID	V1A9190
					Matrix	AQ
					Approved By:	KANYAV
pH paper Lot# (wide range):	223819	Exp. 8/30/2022	Initial Calibration Method	M1A9178	Approved Date:	8/10/2021 1:32:07 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
1A	212783	BFB/CC9178-50		NA			5			1	OK/OK	50ul abk,ec,aa/100ml; 8:48pm
1A	212784	CC9178-1		NA			5			2	OK	1ul abk,ec,aa/100ml
1A	212785	BS		NA			5			3	OK	50ul abk,ec,aa/100ml
1A	212786	IB		NA			5			4	OK	
1A	212787	MB		NA			5			5	OK	
1A	212788	JD29301-9	1	NA	MS52724	V8260TCL42	5		1	6	OK	
1A	212789	JD29301-10	1	NA	MS52724	V8260TCL42	5		1	7	OK	
1A	212790	JD29308-3	2	NA	MS52725	V8260SL2	5		1	8	OK	
1A	212791	JD29312-3	1	NA	MS52725	V8260PPTCL42+.MP XYL,NAP,OXYL,TBA	5		1	9	OK	
1A	212792	JD29312-1	5	NA	MS52725	V8260PPTCL42+.MP XYL,NAP,OXYL,TBA	5		1	10	OK	
1A	212793	JD29313-3	5	NA	MS52725	V8260PPTCL42+.MP XYL,NAP,OXYL,TBA	5		1	11	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
1A	212794	JD29301-8	1	NA	MS52724	V8260TCL42	5		1	12	OK	
1A	212795	JD29301-8MS	2	NA	MS52724	V8260TCL42	5		1	13	OK	20ul abk,ec,aa/40ml sample
1A	212796	JD29301-8MSD	3	NA	MS52724	V8260TCL42	5		1	14	OK	20ul abk,ec,aa/40ml sample
1A	212797	IB		NA			5			15	OK	
1A	212798	JD29308-1	4	NA	MS52725	V8260SL2	5		3	16	OK	
1A	212799	JD29313-1	1	NA	MS52725	V8260PPTCL42+.MPXYL,NAP,OXYL,TBA	5		1	17	OK	
1A	212800	JD29313-2	1	NA	MS52725	V8260PPTCL42+.MPXYL,NAP,OXYL,TBA	5		1	18	OK	
1A	212801	JD29254-3	8	NA	MS52710	V8260TCL20+,124TMB,TBA	5		1	19	OK	
1A	212802	JD29254-4	7	NA	MS52710	V8260TCL20+,124TMB,TBA	5		1	20	OK	
1A	212803	JD29254-5	8	NA	MS52710	V8260TCL20+,124TMB,TBA	5		1	21	OK	
1A	212804	JD29301-1	1	NA	MS52724	V8260TCL42	5		1	22	OK	
1A	212805	JD29301-2	1	NA	MS52724	V8260TCL42	5		1	23	OK	
1A	212806	JD29301-3	1	NA	MS52724	V8260TCL42	5		1	24	OK	
1A	212807	JD29301-4	1	NA	MS52724	V8260TCL42	5		1	25	OK	
1A	212808	JD29301-5	1	NA	MS52724	V8260TCL42	5		1	26	OK	
1A	212809	JD29301-6	1	NA	MS52724	V8260TCL42	5		1	27	OK	7:39am

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standards	ABK: V021-2715-78.72	EC: V020-2715-110.3	AA: V021-2715-91.39	Ext. PA: V021-2715-	Column	Rxi-624(60mx0.25mmx1.4um)
Standard Concentrations	100-10,000ppm	100ppm	100ppm	100ppm	Method	V8260D
Expiration Date	4/24/2021	4/28/2021	5/5/2021		Initial Calibration Date	4/22/2021
Standards	Ext. ABK: V021-2715-79.10	Ext. EC: V021-2715-100.5	Ext. Acrolein: V021-2715-105.1	Ext. Chlorodifluoromethane:		
Standard Concentrations	100-10,000ppm	100ppm	100ppm	100ppm	Analysis Date	4/22/2021
Expiration Date	4/26/2021	4/23/2021	5/19/2021	5/20/2021	Sequence loaded by	Eddie Huang
Internal Surrogate	V021-2715-102				Data processed by	Bridget Kelly
Internal Surrogate Concentration	250/2,500ppm				Batch ID	V3B7429
Expiration Date	5/19/2021				Matrix	AQ
					Approved By:	MEI
pH paper Lot# (wide range):	207519	Exp. 3/15/2022	Initial Calibration Method	V3B7429	Approved Date:	4/26/2021 8:51:08 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3B	164949	BFB		NA			5			1	ok	
3B	164950	IC7429-0.2		NA			5			2	ok	2uLABK,EC,AA/1000mL DI H2O.
3B	164951	IC7429-0.5		NA			5			3	ok	5uLABK,EC,AA/1000mL DI H2O.
3B	164952	IC7429-1		NA			5			4	ok	1uLABK,EC,AA/100mL DI H2O.
3B	164953	IC7429-2		NA			5			5	ok	2uLABK,EC,AA/100mL DI H2O.
3B	164954	IC7429-4		NA			5			6	ok	4uLABK,EC,AA/100mL DI H2O.
3B	164955	IC7429-8		NA			5			7	ok	8uLABK,EC,AA/100mL DI H2O.
3B	164956	IC7429-20		NA			5			8	ok	20uLABK,EC,AA/100mL DI H2O.
3B	164957	ICC7429-50		NA			5			9	ok	50uLABK,EC,AA/100mL DI H2O.
3B	164958	IC7429-100		NA			5			10	ok	100uLABK,EC,AA/100mL DI H2O.
3B	164959	IC7429-200		NA			5			11	ok	200uLABK,EC,AA/100mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3B	164960	IB		NA			5			12	ok	
3B	164961	IB		NA			5			13	ok	
3B	164962	ICV7429-50		NA			5			14	ok	50uLExt.ABK,Ext.EC,Ext.Acrolein/100mL DI H2O.
3B	164963	ICV7429-50		NA			5			15	okok	50uLExt.PA,Ext.Chlorodifluoromethane/100mL DI H2O.
3B	164964	IB		NA			5			16	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standard	ABK: V021-2718-90.21	EC: V021-2718-107.9	AA: V021-2718-70.31		Method	v8260D
Standard Concentrations	100-10,000ppm	100ppm	100ppm		Init Calib Date	4/22/2021
Expiration Date	8/23/2021	8/13/2021	8/8/2021			
Internal Surrogate	V021-2718-75					
Internal Surrogate Concentration	250/2,500ppm				Analysis Date	8/9/2021
Expiration Date	8/15/2021				Sequence loaded by	Jonathan Santos
					Data processed by	kristelv
					Batch ID	V3B7507
Rough reviewed by:					Matrix	AQ
					Approved By:	MOHUI
pH Paper Lot# (wide range):	223120	Exp. 8/15/2023	Initial Calibration Method	M3B7429	Approved Date:	8/10/2021 1:45:03 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3b	166484	IB		NA			5			1	OK	
3b	166485	BFB/CC7429-20		NA			5			2	OK/OK	(9:16 am) 20 uL ABK AA EC / 100 mL
3b	166486	CC7429-1		NA			5			3	OK	1 uL ABK AA EC / 100 mL
3b	166487	BS		NA			5			4	OK	50 uL ABK AA EC / 100 mL
3b	166488	IB		NA			5			5	OK	
3b	166489	MB		NA			5			6	OK	
3b	166490	JD29293-1	4	NA	MS52718	V8260SL	5		1	7	OK	
3b	166491	JD29293-3	1	NA	MS52718	V8260SL	5		1	8	OK	
3b	166492	JD29339-13	4	10x	MS52735	V8260TCL20+	5/50		1	9	OK	+3B166496.
3b	166493	JD29339-11	5	250x	MS52735	V8260TCL20+	0.2/50		1	10	OK	+3B166497.
3b	166494	JD29339-9	4	100x	MS52735	V8260TCL20+	0.5/50		1	11	OK	+3B166498.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
3b	166495	JD29339-12	4	200x	MS52735	V8260TCL20+	0.25/50		1	12	OK	+3D167692.
3b	166496	JD29339-13	4	NA	MS52735	V8260TCL20+	5		1	13	OK/dl	+3B166492.
3b	166497	JD29339-11	5	25x	MS52735	V8260TCL20+	2/50		1	14	OK/dl	+3B166493.
3b	166498	JD29339-9	4	10x	MS52735	V8260TCL20+	5/50		1	15	OK/dl	+3B166494, +3D167691.
3b	166499	JD29339-1	5	20x	MS52735	V8260TCL20+	2.5/50		1	16	OK/dl	+3D167685.
3b	166500	JD29339-1MS	5	20x	MS52735	V8260TCL20+	2.5/50		1	17	OK	20 uL ABK AA EC / 40 mL
3b	166501	JD29339-1MSD	5	20x	MS52735	V8260TCL20+	2.5/50		1	18	OK	20 uL ABK AA EC / 40 mL
3b	166502	IB		NA			5			19	OK	
3b	166503	JD18689-19	4	NA	MS52719	V8260TCL20+	5		1	20	OK	
3b	166504	JD29301-7	1	NA	MS52724	V8260TCL42	5		1	21	OK	8:32pm

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

EPT, Ithaca, NY

31401545.001/Task

SGS Job Number: JD30186

Sampling Date: 08/17/21

Report to:

dave.rykaczewski@wsp.com

ATTN: Distribution5

Total number of pages in report: 32

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5

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Sample Summary

WSP Environment & Energy

Job No: JD30186

EPT, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JD30186-1	08/17/21	09:00	NW	08/18/21	AQ	Ground Water	OPEN DITCH 001 081721
JD30186-2	08/17/21	09:25	NW	08/18/21	AQ	Ground Water	BYPASS 081721
JD30186-3	08/17/21	10:00	NW	08/18/21	AQ	Ground Water	OUTFALL 001 081721
JD30186-4	08/17/21	10:20	NW	08/18/21	AQ	Ground Water	WB SEEPS 081721
JD30186-5	08/17/21	10:50	NW	08/18/21	AQ	Ground Water	WODDEN SLUICE 081721
JD30186-6	08/17/21	11:30	NW	08/18/21	AQ	Ground Water	RW SEEPS 081721
JD30186-6D	08/17/21	11:30	NW	08/18/21	AQ	Water Dup/MSD	RW SEEPS 081721-MSD
JD30186-6S	08/17/21	11:30	NW	08/18/21	AQ	Water Matrix Spike	RW SEEPS 081721-MS
JD30186-7	08/17/21	12:15	NW	08/18/21	AQ	Ground Water	BD24 081721
JD30186-8	08/17/21	08:00	NW	08/18/21	AQ	Ground Water	BD 081721
JD30186-9	08/17/21	13:15	NW	08/18/21	AQ	Equipment Blank	EB-081721
JD30186-10	08/17/21	13:15	NW	08/18/21	AQ	Trip Blank Water	TRIP BLANK

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the MDL

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD30186
Site:	EPT, Ithaca, NY	**Report Date**	8/27/2021 11:19:24 A

On 08/18/2021, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD30186 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2D8623

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD30119-5MS, JD30119-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dibromoethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, Carbon disulfide, Carbon tetrachloride, Chloroform, cis-1,2-Dichloroethene, Methylene chloride, trans-1,2-Dichloroethene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,2-Dibromoethane are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Tetrachloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroform, cis-1,2-Dichloroethene, Cyclohexane, Dibromochloromethane, Ethylbenzene, Isopropylbenzene, Methyl Tert Butyl Ether, Methylcyclohexane, Methylene chloride, Styrene, Xylene (total) are outside control limits for sample JD30119-5MSD. Outside control limits due to matrix interference.
- JD30186-4 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-8 for Carbon disulfide: Associated CCV outside of control limits high, sample was ND.
- JD30186-8 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND.
- JD30186-5 for Bromoform: Associated CCV outside of control limits low.
- JD30186-7 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-3 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND.
- JD30186-7 for Bromoform: Associated CCV outside of control limits low.
- JD30186-7 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-7 for Carbon disulfide: Associated CCV outside of control limits high, sample was ND.
- JD30186-8 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-5 for Trichlorofluoromethane: Associated CCV outside of control limits low.
- JD30186-7 for Trichlorofluoromethane: Associated CCV outside of control limits low.
- JD30186-3 for Carbon disulfide: Associated CCV outside of control limits high, sample was ND.
- JD30186-7 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND.
- JD30186-5 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-4 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-8 for Bromoform: Associated CCV outside of control limits low.
- JD30186-5 for Chloromethane: Associated CCV outside of control limits low.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2D8623

- JD30186-4 for Trichlorofluoromethane: Associated CCV outside of control limits low.
- JD30186-5 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND.
- JD30186-5 for Carbon disulfide: Associated CCV outside of control limits high, sample was ND.
- JD30186-5 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-3 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-4 for Bromoform: Associated CCV outside of control limits low.
- JD30186-4 for Carbon disulfide: Associated CCV outside of control limits high, sample was ND.
- JD30186-4 for 1,2-Dibromoethane: Associated CCV outside of control limits high, sample was ND.
- JD30186-3 for Trichlorofluoromethane: Associated CCV outside of control limits low.
- JD30186-3 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-3 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-3 for Bromoform: Associated CCV outside of control limits low.
- JD30186-4 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-7 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-8 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-8 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-8 for Trichlorofluoromethane: Associated CCV outside of control limits low.

Matrix: AQ **Batch ID:** V4D4990

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD30186-6MS, JD30186-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,2-Dibromoethane are outside control limits. Outside control limits due to matrix interference.
- JD30186-2 for Bromomethane: Associated CCV outside of control limits low.
- JD30186-9 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-10 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-10 for Bromomethane: Associated CCV outside of control limits low.
- JD30186-10 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-10 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-1 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-1 for Bromomethane: Associated CCV outside of control limits low.
- JD30186-9 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-9 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-2 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-2 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-2 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-6 for Dichlorodifluoromethane: Associated CCV outside of control limits low.
- JD30186-1 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-6 for Chloromethane: Associated CCV outside of control limits low.
- JD30186-6 for Bromomethane: Associated CCV outside of control limits low.
- JD30186-6 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits low.
- JD30186-9 for Bromomethane: Associated CCV outside of control limits low.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V4D4990

- JD30186-1 for Dichlorodifluoromethane: Associated CCV outside of control limits low.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD30186
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 08/17/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD30186-1	**OPEN DITCH 001 081721**					
Chloroform		0.98 J	1.0	0.50	ug/l	SW846 8260D
JD30186-2	**BYPASS 081721**					
Chloroform		0.66 J	1.0	0.50	ug/l	SW846 8260D
JD30186-3	**OUTFALL 001 081721**					
Chloroform		1.6	1.0	0.50	ug/l	SW846 8260D
JD30186-4	**WB SEEPS 081721**					
Chloroform		1.0	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		43.2	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		4.0	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		6.6	1.0	0.79	ug/l	SW846 8260D
JD30186-5	**WODDEN SLUICE 081721**					
Chloroform		1.0	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		1.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		0.61 J	1.0	0.53	ug/l	SW846 8260D
JD30186-6	**RW SEEPS 081721**					
cis-1,2-Dichloroethene		1.5	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		1.8	1.0	0.79	ug/l	SW846 8260D
JD30186-7	**BD24 081721**					
cis-1,2-Dichloroethene		2.3	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		8.6	1.0	0.53	ug/l	SW846 8260D
JD30186-8	**BD 081721**					
cis-1,2-Dichloroethene		2.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		8.6	1.0	0.53	ug/l	SW846 8260D
JD30186-9	**EB-081721**					

No hits reported in this sample.

Summary of Hits

Job Number: JD30186
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 08/17/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD30186-10	**TRIP BLANK**					

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OPEN DITCH 001 081721		
Lab Sample ID:	JD30186-1	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D112062.D	1	08/25/21 17:33	EH	n/a	n/a	V4D4990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.98	1.0	0.50	ug/l	J
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 081721		
Lab Sample ID:	JD30186-1	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		85-118%
17060-07-0	1,2-Dichloroethane-D4	121%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	90%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 081721		
Lab Sample ID:	JD30186-2	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D112063.D	1	08/25/21 18:02	EH	n/a	n/a	V4D4990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	0.66	1.0	0.50	ug/l	J
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 081721		
Lab Sample ID:	JD30186-2	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		85-118%
17060-07-0	1,2-Dichloroethane-D4	120%		80-121%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 081721		
Lab Sample ID:	JD30186-3	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D198477.D	1	08/26/21 15:25	JS	n/a	n/a	V2D8623
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide [b]	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	1.6	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 081721		
Lab Sample ID:	JD30186-3	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		85-118%
17060-07-0	1,2-Dichloroethane-D4	87%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 081721		
Lab Sample ID:	JD30186-4	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D198478.D	1	08/26/21 15:55	JS	n/a	n/a	V2D8623
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide [b]	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	1.0	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	43.2	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 081721		
Lab Sample ID:	JD30186-4	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.0	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	6.6	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		85-118%
17060-07-0	1,2-Dichloroethane-D4	86%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WODDEN SLUICE 081721		
Lab Sample ID:	JD30186-5	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D198479.D	1	08/26/21 16:25	JS	n/a	n/a	V2D8623
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide [b]	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	1.0	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WODDEN SLUICE 081721		
Lab Sample ID:	JD30186-5	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	0.61	1.0	0.53	ug/l	J
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		85-118%
17060-07-0	1,2-Dichloroethane-D4	86%		80-121%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEPS 081721		
Lab Sample ID:	JD30186-6	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D112054.D	1	08/25/21 13:42	EH	n/a	n/a	V4D4990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEPS 081721		
Lab Sample ID:	JD30186-6	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	1.8	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		85-118%
17060-07-0	1,2-Dichloroethane-D4	118%		80-121%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	90%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 081721		
Lab Sample ID:	JD30186-7	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D198480.D	1	08/26/21 16:54	JS	n/a	n/a	V2D8623
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide [b]	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 081721		
Lab Sample ID:	JD30186-7	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	8.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		85-118%
17060-07-0	1,2-Dichloroethane-D4	84%		80-121%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD 081721		
Lab Sample ID:	JD30186-8	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D198481.D	1	08/26/21 17:24	JS	n/a	n/a	V2D8623
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform [a]	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide [b]	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane [b]	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD 081721		
Lab Sample ID:	JD30186-8	**Date Sampled:**	08/17/21
Matrix:	AQ - Ground Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	8.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [a]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		85-118%
17060-07-0	1,2-Dichloroethane-D4	84%		80-121%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

(a) Associated CCV outside of control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-081721		
Lab Sample ID:	JD30186-9	**Date Sampled:**	08/17/21
Matrix:	AQ - Equipment Blank	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D112060.D	1	08/25/21 16:35	EH	n/a	n/a	V4D4990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-081721		
Lab Sample ID:	JD30186-9	**Date Sampled:**	08/17/21
Matrix:	AQ - Equipment Blank	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		85-118%
17060-07-0	1,2-Dichloroethane-D4	115%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	91%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD30186-10	**Date Sampled:**	08/17/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D112061.D	1	08/25/21 17:04	EH	n/a	n/a	V4D4990
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane [a]	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropan [a]	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD30186-10	**Date Sampled:**	08/17/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		85-118%
17060-07-0	1,2-Dichloroethane-D4	119%		80-121%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	90%		80-120%

(a) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FED T#: 9251 0905 1422
BC # TM-073021-182

wsp

GW, EB, TB

Chain of Custody Form

Page 1 of 1

WSP Office Address	Requested Analyses & Preservatives	No.
7000 East Genesee Street, Building D, 2nd Floor	8260 VOCs	JD 30186
Project Name Emersub 15, LLC	**WSP Contact Name** Nathaniel Winston	**Laboratory Name & Location** SGS NJ
Project Location Ithaca, NY	**WSP Contact E-mail** NATHANIEL.WINSTON@wsp.com	**Laboratory Project Manager** TAMMY McCloskey
Project Number & Task 31401545.001/Task	**WSP Contact Phone** 315-420-9973	**Requested Turn-Around-Time** ☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR
Sampler(s) Name(s) Nathaniel Winston	**Sampler(s) Signature(s)**	

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers		Sample Comments	
1	OPEN DITCH 001 081721	AQ	—	—	08/17/21	0900	3	X	575 gpm	V123
2	BYPASS 081721		—	—		0925	3	X	750 gpm	S
3	OUTFALL 001 081721		—	—		1000	3	X	OVERFLOWING WEIR, >200gpm	
4	WB SEEPS 081721		—	—		1020	3	X	<0.25 gpm	
5	WOODEN SLUICE 081721		—	—		1050	3	X	>1000 gpm	
6	RW SEEPS 081721-MS/MSD		—	—		1130	9	X	RW MS/MSD 2.75 gpm	
7	BD 24 081721		—	—		1215	3	X	FBW: 13gpm	
8	BD 081721		—	—		0800	3	X		
9	EB-081721		—	—		1315	2	X	EQUIPMENT BLANK	
10	TRIP BLANK		—	—	—	—	2	X		

WSP EPT, Ithaca, NY TM-073021-182
Please place on the back of original (white copy of COC)
This will assist us in processing your samples
Thank You

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	8/19/21	1530				Fedex	
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
Fedex	8/18/21	10:00	INITIAL ASSESSMENT 08/20	—	—	1	—

*Time stop time/date for composite and/or air samples; use only start time. Time for all other samples.

Matrix: ~~AQ~~ = Aqueous, S = Soil, SL = ~~Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)~~

LABEL VERIFICATION:

4.0

SGS Sample Receipt Summary

Job Number: JD30186 **Client:** WSP **Project:** EPT, ITHACA, NY

Date / Time Received: 8/18/2021 10:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.0);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 212820 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD30186: Chain of Custody
Page 2 of 2

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

EPT, Ithaca, NY

31401545.001/Task

SGS Job Number: JD31277

Sampling Date: 09/09/21

Report to:

dave.rykaczewski@wsp.com

ATTN: Distribution5

Total number of pages in report: 32

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5

Table of Contents

Sample Summary

WSP Environment & Energy

Job No: JD31277

EPT, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JD31277-1	09/09/21	07:25	NW	09/10/21	AQ	Ground Water	BD 24 SEEP 090921
JD31277-2	09/09/21	07:00	NW	09/10/21	AQ	Ground Water	BD090921
JD31277-3	09/09/21	08:00	NW	09/10/21	AQ	Ground Water	RW SEEP 090921
JD31277-3D	09/09/21	08:00	NW	09/10/21	AQ	Water Dup/MSD	RW SEEP 090921-MSD
JD31277-3S	09/09/21	08:00	NW	09/10/21	AQ	Water Matrix Spike	RW SEEP 090921-MS
JD31277-4	09/09/21	08:35	NW	09/10/21	AQ	Ground Water	OPEN DITCH 001 090921
JD31277-5	09/09/21	08:55	NW	09/10/21	AQ	Ground Water	BYPASS 090921
JD31277-6	09/09/21	09:20	NW	09/10/21	AQ	Ground Water	WB SEEPS 090921
JD31277-7	09/09/21	09:40	NW	09/10/21	AQ	Ground Water	OUTFALL 001 090921
JD31277-8	09/09/21	10:10	NW	09/10/21	AQ	Ground Water	WOODEN SLUICE 090921
JD31277-9	09/09/21	11:00	NW	09/10/21	AQ	Equipment Blank	EB090921
JD31277-10	09/09/21	11:00	NW	09/10/21	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD31277
Site:	EPT, Ithaca, NY	**Report Date**	9/20/2021 1:55:07 PM

On 09/10/2021, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD31277 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2V3328

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD31277-3MS, JD31277-3MSD were used as the QC samples indicated.
- RPD(s) for MSD for Xylene (total) are outside control limits for sample JD31277-3MSD. Analytical precision exceeds in-house control limits.
- JD31277-3 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-3 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- V2V3328-BS for Acetone: High percent recovery and no associated positive reported in the QC batch.
- JD31277-3 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-8 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-10 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-7 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-5 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-5 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-8 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-7 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-1 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-10 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-2 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-2 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-7 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-4 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-2 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2V3328

- JD31277-4 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-1 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-4 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-8 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-5 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-10 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-6 for Bromomethane: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-6 for Freon 113: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31277-6 for Acetone: This compound in blank spike is outside in house QC limits bias high.
- JD31277-1 for Acetone: This compound in blank spike is outside in house QC limits bias high.

Matrix: AQ **Batch ID:** VV7544

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD30837-2MS, JD30837-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Dichlorodifluoromethane, Isopropylbenzene are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,2-Dibromoethane, 1,2-Dichloroethane, 1,2-Dichloropropane, Benzene, Bromodichloromethane, Carbon tetrachloride, Chlorobenzene, Chloroform, cis-1,2-Dichloroethene, Cyclohexane, Dibromochloromethane, Ethylbenzene, Methylene chloride, Styrene, Trichloroethene, Xylene (total) are outside control limits for sample JD30837-2MSD. Analytical precision exceeds in-house control limits.
- JD31277-9: (pH=5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
- JD31277-9 for Dichlorodifluoromethane, Trichlorofluoromethane: Associated CCV outside of control limits high, sample was ND.
- JD31277-9 for Styrene: This compound in blank spike is outside in house QC limits bias high.
- VV7544-BS for Styrene: High percent recovery and no associated positive reported in the QC batch.
- JD30837-2MS for Styrene: Outside control limits.
- JD30837-2MSD for Trichloroethene: Outside control limits due to high level in sample relative to spike amount.

Summary of Hits

Job Number: JD31277
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 09/09/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD31277-1	**BD 24 SEEP 090921**					
cis-1,2-Dichloroethene		2.1	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		11.0	1.0	0.53	ug/l	SW846 8260D
JD31277-2	**BD090921**					
cis-1,2-Dichloroethene		2.0	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		10.8	1.0	0.53	ug/l	SW846 8260D
JD31277-3	**RW SEEP 090921**					
cis-1,2-Dichloroethene		3.0	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		3.7	1.0	0.79	ug/l	SW846 8260D
JD31277-4	**OPEN DITCH 001 090921**					
No hits reported in this sample.						
JD31277-5	**BYPASS 090921**					
cis-1,2-Dichloroethene		0.68 J	1.0	0.51	ug/l	SW846 8260D
JD31277-6	**WB SEEPS 090921**					
cis-1,2-Dichloroethene		117	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene		1.3	1.0	0.54	ug/l	SW846 8260D
Trichloroethene		18.1	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		20.7	1.0	0.79	ug/l	SW846 8260D
JD31277-7	**OUTFALL 001 090921**					
Bromodichloromethane		1.8	1.0	0.45	ug/l	SW846 8260D
Chloroform		4.8	1.0	0.50	ug/l	SW846 8260D
Dibromochloromethane		0.66 J	1.0	0.56	ug/l	SW846 8260D
cis-1,2-Dichloroethene		1.0	1.0	0.51	ug/l	SW846 8260D
JD31277-8	**WOODEN SLUICE 090921**					
Bromodichloromethane		1.5	1.0	0.45	ug/l	SW846 8260D
Chloroform		3.8	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		8.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		5.0	1.0	0.53	ug/l	SW846 8260D

Summary of Hits

Job Number: JD31277
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 09/09/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD31277-9	**EB090921**					
No hits reported in this sample.						
JD31277-10	**TRIP BLANK**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD 24 SEEP 090921		
Lab Sample ID:	JD31277-1	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80687.D	1	09/18/21 04:17	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.1	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD 24 SEEP 090921		
Lab Sample ID:	JD31277-1	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	11.0	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		85-118%
17060-07-0	1,2-Dichloroethane-D4	106%		80-121%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD090921		
Lab Sample ID:	JD31277-2	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80688.D	1	09/18/21 04:43	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD090921		
Lab Sample ID:	JD31277-2	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	10.8	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		85-118%
17060-07-0	1,2-Dichloroethane-D4	107%		80-121%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEP 090921		
Lab Sample ID:	JD31277-3	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80680.D	1	09/18/21 01:18	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEP 090921		
Lab Sample ID:	JD31277-3	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	3.7	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		85-118%
17060-07-0	1,2-Dichloroethane-D4	108%		80-121%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 090921		
Lab Sample ID:	JD31277-4	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80689.D	1	09/18/21 05:08	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 090921		
Lab Sample ID:	JD31277-4	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		85-118%
17060-07-0	1,2-Dichloroethane-D4	109%		80-121%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 090921		
Lab Sample ID:	JD31277-5	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80690.D	1	09/18/21 05:34	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.68	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 090921		
Lab Sample ID:	JD31277-5	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		85-118%
17060-07-0	1,2-Dichloroethane-D4	108%		80-121%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 090921		
Lab Sample ID:	JD31277-6	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80691.D	1	09/18/21 06:00	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	117	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.3	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 090921		
Lab Sample ID:	JD31277-6	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	18.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	20.7	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		85-118%
17060-07-0	1,2-Dichloroethane-D4	108%		80-121%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 090921		
Lab Sample ID:	JD31277-7	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80692.D	1	09/18/21 06:25	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.8	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	4.8	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	0.66	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 090921		
Lab Sample ID:	JD31277-7	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		85-118%
17060-07-0	1,2-Dichloroethane-D4	105%		80-121%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 090921		
Lab Sample ID:	JD31277-8	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80693.D	1	09/18/21 06:51	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.5	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	3.8	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	8.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 090921		
Lab Sample ID:	JD31277-8	**Date Sampled:**	09/09/21
Matrix:	AQ - Ground Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	5.0	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		85-118%
17060-07-0	1,2-Dichloroethane-D4	105%		80-121%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB090921		
Lab Sample ID:	JD31277-9	**Date Sampled:**	09/09/21
Matrix:	AQ - Equipment Blank	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	V178554.D	1	09/13/21 23:54	ED	n/a	n/a	VV7544
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane [b]	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB090921		
Lab Sample ID:	JD31277-9	**Date Sampled:**	09/09/21
Matrix:	AQ - Equipment Blank	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene [c]	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane [b]	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		85-118%
17060-07-0	1,2-Dichloroethane-D4	107%		80-121%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	87%		80-120%

(a) (pH = 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 7 days holding time.
(b) Associated CCV outside of control limits high, sample was ND.
(c) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD31277-10	**Date Sampled:**	09/09/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2V80686.D	1	09/18/21 03:52	EH	n/a	n/a	V2V3328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113 [b]	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD31277-10	**Date Sampled:**	09/09/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/10/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		85-118%
17060-07-0	1,2-Dichloroethane-D4	111%		80-121%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

GW EB FB

TM-073021-182

wsp

Chain of Custody Form

Fed.ex 8170 1401 3493 ~~8170~~ 1401 PN

Page 1 of 1

WSP Office Address	7000 East Genesee Street, Building D, 2nd Floor
Project Name	Emersub 15, LLC
WSP Contact Name	Nathaniel Winston
Project Location	Ithaca, NY
WSP Contact E-mail	NATHANIEL.WINSTON @wsp.com
Project Number & Task	31401545.001/Task
WSP Contact Phone	315-420-9973
Sampler(s) Name(s)	Nathaniel Winston
Sampler(s) Signature(s)	[signature]
No.	JD31277
Laboratory Name & Location	SGS DAYTON
Laboratory Project Manager	TAMMY McCloskey
Requested Turn-Around-Time	[X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Requested Analyses & Preservatives: 8260 VOCs

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs	Sample Comments
1	BD 24 SEEP 090921	AQ	—	—	9/9/21	0725	3	X	Flow: 1.60gpm
2	BD090921	|	—	—	|	0700	3	X	
3	RW SEEP 090921-MS/MSD	|	—	—	|	0800	9	X	RUN MS/MSD Flow: 0.58gpm
4	OPEN DITCH 001 090921	|	—	—	|	0835	3	X	Flow: 9.7 gpm.
5	BYPASS 090921	|	—	—	|	0855	3	X	Flow: 12.1gpm
6	WB SEEPS 090921	|	—	—	|	0920	3	X	Flow: 0.5 gpm
7	OUTFALL 001 090921	|	—	—	|	0940	3	X	Flow: 3.25 gpm
8	Wooden Sluice 090921	|	—	—	|	1010	3	X	Flow: 14.2 gpm.
9	EB090921	|	—	—	|	1100	2	X	
10	TRIP BLANK	—	—	—	—	—	2	X	

WSP
EPT, Ithaca, NY
TM-062921-153
Please place on the back of original (white copy of COC)
This will assist us in processing your samples.
Thank You

v252

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	
[signature]	9/9/21	1330				FedEx	
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
FedEx	9/10	10 30	[signature]	3A SS		1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Initial Assessment

Label Verification

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

4.1

5.1 5

JD31277: Chain of Custody
Page 1 of 3

SGS Sample Receipt Summary

Job Number: JD31277 **Client:** WSP **Project:** EPT, ITHACA, NY

Date / Time Received: 9/10/2021 10:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.1);

Cooler Temps (Corrected) °C: Cooler 1: (3.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments -9: Received 2x40mL nonpreserved vials marked for V8260TCLP. Did not receive HCL preserved volume for 8260. Please confirm analysis.

SM089-02 Rev. Date 12/1/16

Responded to by:

Response Date:

-9 Vials marked my mistake . Please log V8260TCL42.,VMS+UNPR,No screen vial .

JD31277: Chain of Custody
Page 3 of 3

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

EPT, Ithaca, NY

31401545.001/TASK

SGS Job Number: JD31861

Sampling Date: 09/16/21

Report to:

dave.rykaczewski@wsp.com

ATTN: Distribution5

Total number of pages in report: 32

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4 5

Table of Contents

Sample Summary

WSP Environment & Energy

Job No: JD31861

EPT, Ithaca, NY
Project No: 31401545.001/TASK

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JD31861-1	09/16/21	08:35	NW	09/18/21	AQ	Ground Water	BD24 SEEP 091621
JD31861-2	09/16/21	08:00	NW	09/18/21	AQ	Ground Water	BD091621
JD31861-3	09/16/21	09:05	NW	09/18/21	AQ	Ground Water	RW SEEP 091621
JD31861-4	09/16/21	09:30	NW	09/18/21	AQ	Ground Water	OPEN DITCH 001 091621
JD31861-5	09/16/21	09:50	NW	09/18/21	AQ	Ground Water	BYPASS 091621
JD31861-6	09/16/21	10:10	NW	09/18/21	AQ	Ground Water	WB SEEPS 091621
JD31861-7	09/16/21	10:30	NW	09/18/21	AQ	Ground Water	OUTFALL 001 091621
JD31861-8	09/16/21	10:50	NW	09/18/21	AQ	Ground Water	WOODEN SLUICE 091621
JD31861-9	09/16/21	11:30	NW	09/18/21	AQ	Equipment Blank	EB-091621
JD31861-10	09/16/21	11:30	NW	09/18/21	AQ	Trip Blank Water	TRIP BLANK

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No:**	JD31861
Site:	EPT, Ithaca, NY	**Report Date**	10/1/2021 3:15:53 PM

On 09/18/2021, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD31861 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2A9299

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD31861-3MS, JD31861-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JD31861-10 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- V2A9299-BS for Toluene: High percent recovery and no associated positive reported in the QC batch.
- JD31861-3 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-3 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-3 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-3 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-3 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-1 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-1 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-1 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-1 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-9 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-2 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-1 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-10 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-2 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-2 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-2 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2A9299

- JD31861-2 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-3 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-9 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-9 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-9 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-9 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-9 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-10 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-10 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-8 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-2 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-6 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-1 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-4 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-4 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-4 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-4 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-5 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-4 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-8 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-5 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-5 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-5 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-5 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-5 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-7 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-7 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-7 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2A9299

- JD31861-10 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-7 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-7 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-8 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-8 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-10 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-8 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-4 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-8 for Toluene: This compound in blank spike is outside in house QC limits bias high.
- JD31861-6 for 2-Butanone (MEK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-6 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-6 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-6 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-6 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD31861-7 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD31861
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 09/16/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD31861-1	**BD24 SEEP 091621**					
cis-1,2-Dichloroethene		1.3	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		8.8	1.0	0.53	ug/l	SW846 8260D
JD31861-2	**BD091621**					
cis-1,2-Dichloroethene		1.3	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		9.1	1.0	0.53	ug/l	SW846 8260D
JD31861-3	**RW SEEP 091621**					
cis-1,2-Dichloroethene		0.79 J	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		1.2	1.0	0.79	ug/l	SW846 8260D
JD31861-4	**OPEN DITCH 001 091621**					
No hits reported in this sample.						
JD31861-5	**BYPASS 091621**					
cis-1,2-Dichloroethene		0.53 J	1.0	0.51	ug/l	SW846 8260D
JD31861-6	**WB SEEPS 091621**					
cis-1,2-Dichloroethene		128	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene		1.4	1.0	0.54	ug/l	SW846 8260D
Trichloroethene		18.5	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		19.3	1.0	0.79	ug/l	SW846 8260D
JD31861-7	**OUTFALL 001 091621**					
Bromodichloromethane		2.1	1.0	0.45	ug/l	SW846 8260D
Chloroform		5.7	1.0	0.50	ug/l	SW846 8260D
Dibromochloromethane		0.88 J	1.0	0.56	ug/l	SW846 8260D
cis-1,2-Dichloroethene		0.92 J	1.0	0.51	ug/l	SW846 8260D
JD31861-8	**WOODEN SLUICE 091621**					
Bromodichloromethane		1.7	1.0	0.45	ug/l	SW846 8260D
Chloroform		4.6	1.0	0.50	ug/l	SW846 8260D
Dibromochloromethane		0.84 J	1.0	0.56	ug/l	SW846 8260D
cis-1,2-Dichloroethene		7.6	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		4.5	1.0	0.53	ug/l	SW846 8260D

Summary of Hits

Job Number: JD31861
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 09/16/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD31861-9	**EB-091621**					
No hits reported in this sample.						
JD31861-10	**TRIP BLANK**					
No hits reported in this sample.						

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BD24 SEEP 091621		
Lab Sample ID:	JD31861-1	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213638.D	1	09/30/21 13:52	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 091621		
Lab Sample ID:	JD31861-1	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	8.8	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		85-118%
17060-07-0	1,2-Dichloroethane-D4	102%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD091621		
Lab Sample ID:	JD31861-2	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213639.D	1	09/30/21 14:20	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.3	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD091621		
Lab Sample ID:	JD31861-2	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	9.1	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		85-118%
17060-07-0	1,2-Dichloroethane-D4	102%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEP 091621		
Lab Sample ID:	JD31861-3	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213637.D	1	09/30/21 13:23	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.79	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEP 091621		
Lab Sample ID:	JD31861-3	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	1.2	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		85-118%
17060-07-0	1,2-Dichloroethane-D4	101%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 091621		
Lab Sample ID:	JD31861-4	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213649.D	1	09/30/21 19:06	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 091621		
Lab Sample ID:	JD31861-4	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		85-118%
17060-07-0	1,2-Dichloroethane-D4	99%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 091621		
Lab Sample ID:	JD31861-5	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213650.D	1	09/30/21 19:34	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.53	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 091621		
Lab Sample ID:	JD31861-5	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		85-118%
17060-07-0	1,2-Dichloroethane-D4	100%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 091621		
Lab Sample ID:	JD31861-6	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213653.D	1	09/30/21 21:00	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	128	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.4	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 091621		
Lab Sample ID:	JD31861-6	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	18.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	19.3	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		85-118%
17060-07-0	1,2-Dichloroethane-D4	101%		80-121%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 091621		
Lab Sample ID:	JD31861-7	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213651.D	1	09/30/21 20:03	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	2.1	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	5.7	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	0.88	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.92	1.0	0.51	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001 091621		
Lab Sample ID:	JD31861-7	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		85-118%
17060-07-0	1,2-Dichloroethane-D4	100%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 091621		
Lab Sample ID:	JD31861-8	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213652.D	1	09/30/21 20:31	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.7	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	4.6	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	0.84	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.6	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 091621		
Lab Sample ID:	JD31861-8	**Date Sampled:**	09/16/21
Matrix:	AQ - Ground Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	4.5	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		85-118%
17060-07-0	1,2-Dichloroethane-D4	100%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-091621		
Lab Sample ID:	JD31861-9	**Date Sampled:**	09/16/21
Matrix:	AQ - Equipment Blank	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213647.D	1	09/30/21 18:09	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-091621		
Lab Sample ID:	JD31861-9	**Date Sampled:**	09/16/21
Matrix:	AQ - Equipment Blank	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		85-118%
17060-07-0	1,2-Dichloroethane-D4	99%		80-121%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD31861-10	**Date Sampled:**	09/16/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A213648.D	1	09/30/21 18:37	BK	n/a	n/a	V2A9299
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK) [a]	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	JD31861-10	**Date Sampled:**	09/16/21
Matrix:	AQ - Trip Blank Water	**Date Received:**	09/18/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene [b]	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		85-118%
17060-07-0	1,2-Dichloroethane-D4	99%		80-121%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) This compound in blank spike is outside in house QC limits bias high.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

wsp

GW EB, TB

Chain of Custody Form

SW-09221-119 4630 0057 0642

Page 1 of 1

WSP Office Address	7000 East Genesee Street, Building D, 2nd Floor
Project Name	Emersub 15, LLC
WSP Contact Name	Nathaniel Winston
Project Location	Ithaca, NY
WSP Contact E-mail	Nathaniel.Winston@wsp.com
Project Number & Task	31401545.001/Task
WSP Contact Phone	315-420-9973
Sampler(s) Name(s)	Nathaniel Winston
Sampler(s) Signature(s)	[signature]
No.	JD-31861
Laboratory Name & Location	SGS, Dayton
Laboratory Project Manager	Tammy McCloskey
Requested Turn-Around-Time	[X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Requested Analyses & Preservatives: 8260 VOCs

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs	Sample Comments
1	BD24SEEP 091621	AQ	—		9/16/21	0835	3	X	Flow: 320gpm
2	BD091621		—			0800	3	X	
3	PW SEEP 091621-MS/MSD		—			0905	4	X	Run MS/MSD Flow: 0.95gpm
4	OPEN DITCH 001 091621		—			0930	3	X	Flow: 19.2 gpm
5	BYPASS 091621		—			0950	3	X	Flow: 27.1 gpm
6	WB SEEPS 091621		—			1010	3	X	Flow: 0.62 gpm
7	OUTFALL 001 091621		—			1030	3	X	Flow: 2.9 gpm
8	Wooden Sluice 091621		—			1050	3	X	Flow: 23.2 gpm
9	EB-091621		—			1130	2	X	
10	TRIP BLANK		—		—	—	2	X	
									V331
									• QC vol

WSP
EPT, Ithaca, NY
SW-09921-193
Please place on the back of original (white copy of COC)
This will assist us in processing your samples
Thank You

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	9/17/21	1230				Fedex	
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
Fedex	9/18/21	9.40	~~Fedex~~ [signature]				

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Initial Assessment TS34

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Label Verification______

Temp. 4.7° IP

5.1

5

JD31861: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD31861 **Client:** WSP **Project:** EPT, ITHACA, NY

Date / Time Received: 9/18/2021 9:40:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.7);

Cooler Temps (Corrected) °C: Cooler 1: (3.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD31861: Chain of Custody
Page 2 of 2

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

EPT, Ithaca, NY

31401545.001/Task 05.63

SGS Job Number: JD35270

Sampling Date: 11/08/21

Report to:

WSP
13530 DULLES TECHNOLOGY DRIVE Suite 300
Herndon, VA 20171
Nathaniel.Winston@wsp.com; jeffrey.baker@wsp.com

ATTN: Nathaniel Winston

Total number of pages in report: 215

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Table of Contents

SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD35270

EPT, Ithaca, NY
Project No: 31401545.001/Task 05.63

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
This report contains results reported as ND = Not detected. The following applies: Organics ND = Not detected above the MDL							
JD35270-1	11/08/21	09:00	NW	11/13/21	AQ	Ground Water	BD24 SEEP 110821
JD35270-2	11/08/21	09:30	NW	11/13/21	AQ	Ground Water	RW SEEP 110821
JD35270-3	11/08/21	10:00	NW	11/13/21	AQ	Ground Water	OPEN DITCH 001 110821
JD35270-4	11/08/21	10:45	NW	11/13/21	AQ	Ground Water	BYPASS 110821
JD35270-5	11/08/21	11:30	NW	11/13/21	AQ	Ground Water	WB SEEPS 110821
JD35270-6	11/08/21	12:00	NW	11/13/21	AQ	Ground Water	OUTFALL 001
JD35270-6D	11/08/21	12:00	NW	11/13/21	AQ	Water Dup/MSD	OUTFALL 001-MSD
JD35270-6S	11/08/21	12:00	NW	11/13/21	AQ	Water Matrix Spike	OUTFALL 001-MS
JD35270-7	11/08/21	12:30	NW	11/13/21	AQ	Ground Water	WOODEN SLUICE 110821
JD35270-8	11/08/21	08:00	NW	11/13/21	AQ	Ground Water	WS 110821
JD35270-9	11/08/21	13:30	NW	11/13/21	AQ	Equipment Blank	EB-110821

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	WSP Environment & Energy	**Job No**	JD35270
Site:	EPT, Ithaca, NY	**Report Date**	11/24/2021 10:22:49 A

On 11/13/2021, 9 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD35270 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2C8352

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD35270-6MS, JD35270-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for 1,1-Dichloroethene, Cyclohexane, Dichlorodifluoromethane, Freon 113, Styrene, Trichlorofluoromethane are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for Styrene are outside control limits for sample JD35270-6MSD. Outside control limits due to matrix interference.
- JD35270-7 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-4 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD35270-3 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD35270-1 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- RPD of V2C8352-BSD for Methyl Acetate: Outside in house control limits.
- V2C8352-BS/BSD for 1,4-Dichlorobenzene: Outside of in house control limits, but within reasonable method recovery limits.
- V2C8352-BS/BSD for 1,1,2-Trichloroethane: Outside of in house control limits, but within reasonable method recovery limits.
- V2C8352-BS for Chloroethane: High percent recovery and no associated positive reported in the QC batch.
- V2C8352-MB for Dibromochloromethane: MDL from current instrument.
- JD35270-6 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD35270-1 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD35270-8 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-6 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-6 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-6 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD35270-2 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD35270-2 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-2 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD35270-2 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-1 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2C8352

- V2C8352-MB for 1,1,2,2-Tetrachloroethane: MDL from current instrument.
- JD35270-1 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-3 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-1 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-6 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-4 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-5 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-3 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-3 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD35270-3 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-4 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-4 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD35270-8 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD35270-7 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD35270-8 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-7 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-5 for Bromomethane: Associated CCV outside of control limits high, sample was ND.
- JD35270-5 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-5 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD35270-5 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-7 for 4-Methyl-2-pentanone(MIBK): Associated CCV outside of control limits high, sample was ND.
- JD35270-4 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-8 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-8 for Chloroethane: Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
- JD35270-2 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-7 for Bromomethane: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V2C8354

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD34929-13MS, JD34929-13MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Cyclohexane, Dichlorodifluoromethane, Freon 113, Trichlorofluoromethane are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 4-Methyl-2-pentanone(MIBK), Bromodichloromethane, cis-1,3-Dichloropropene, Cyclohexane, Dichlorodifluoromethane, Trichlorofluoromethane are outside control limits. Outside control limits due to matrix interference.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V2C8354

- RPD(s) for MSD for 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone(MIBK), Acetone, Benzene, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Cyclohexane, Dibromochloromethane, Dichlorodifluoromethane, Ethylbenzene, Freon 113, Isopropylbenzene, Methyl Acetate, Methyl Tert Butyl Ether, Methylcyclohexane, Methylene chloride, Styrene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride, Xylene (total) are outside control limits for sample JD34929-13MSD. Outside control limits due to matrix interference.
- JD35270-9 for Chloroethane: This compound in blank spike is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.
- V2C8354-BS for Chloroethane: High percent recovery and no associated positive reported in the QC batch.
- V2C8354-BS for 1,4-Dichlorobenzene: Outside of in house control limits, but within the marginal exceedance limits.
- JD35270-9 for cis-1,3-Dichloropropene: Associated CCV outside of control limits high, sample was ND.
- JD35270-9 for 2-Hexanone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-9 for Acetone: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- JD35270-9 for Methyl Acetate: Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
- V2C8354-BS for 1,3-Dichlorobenzene: Outside of in house control limits, but within the marginal exceedance limits.
- JD35270-9 for Bromomethane: Associated CCV outside of control limits high, sample was ND.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JD35270
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 11/08/21

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD35270-1	**BD24 SEEP 110821**					
cis-1,2-Dichloroethene		4.4	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		24.9	1.0	0.53	ug/l	SW846 8260D
JD35270-2	**RW SEEP 110821**					
cis-1,2-Dichloroethene		6.0	1.0	0.51	ug/l	SW846 8260D
Vinyl chloride		9.0	1.0	0.79	ug/l	SW846 8260D
JD35270-3	**OPEN DITCH 001 110821**					
No hits reported in this sample.						
JD35270-4	**BYPASS 110821**					
No hits reported in this sample.						
JD35270-5	**WB SEEPS 110821**					
1,1-Dichloroethene		0.60 J	1.0	0.59	ug/l	SW846 8260D
cis-1,2-Dichloroethene		161	1.0	0.51	ug/l	SW846 8260D
trans-1,2-Dichloroethene		1.4	1.0	0.54	ug/l	SW846 8260D
Trichloroethene		12.0	1.0	0.53	ug/l	SW846 8260D
Vinyl chloride		46.5	1.0	0.79	ug/l	SW846 8260D
JD35270-6	**OUTFALL 001**					
Bromodichloromethane		2.6	1.0	0.45	ug/l	SW846 8260D
Chloroform		9.5	1.0	0.50	ug/l	SW846 8260D
Dibromochloromethane		0.67 J	1.0	0.56	ug/l	SW846 8260D
JD35270-7	**WOODEN SLUICE 110821**					
Bromodichloromethane		1.9	1.0	0.45	ug/l	SW846 8260D
Chloroform		7.5	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		7.9	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		2.6	1.0	0.53	ug/l	SW846 8260D
JD35270-8	**WS 110821**					
Bromodichloromethane		2.1	1.0	0.45	ug/l	SW846 8260D
Chloroform		7.4	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethene		7.7	1.0	0.51	ug/l	SW846 8260D
Trichloroethene		2.9	1.0	0.53	ug/l	SW846 8260D

Summary of Hits

Job Number: JD35270
Account: WSP Environment & Energy
Project: EPT, Ithaca, NY
Collected: 11/08/21

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

JD35270-9 **EB-110821**

No hits reported in this sample.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	BD24 SEEP 110821		
Lab Sample ID:	JD35270-1	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187637.D	1	11/17/21 18:06	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.4	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BD24 SEEP 110821		
Lab Sample ID:	JD35270-1	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	24.9	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		85-118%
17060-07-0	1,2-Dichloroethane-D4	93%		80-121%
2037-26-5	Toluene-D8	87%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	RW SEEP 110821		
Lab Sample ID:	JD35270-2	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187638.D	1	11/17/21 18:35	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	6.0	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW SEEP 110821		
Lab Sample ID:	JD35270-2	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	9.0	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	95%		80-121%
2037-26-5	Toluene-D8	86%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	OPEN DITCH 001 110821		
Lab Sample ID:	JD35270-3	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187639.D	1	11/17/21 19:05	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OPEN DITCH 001 110821		
Lab Sample ID:	JD35270-3	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		85-118%
17060-07-0	1,2-Dichloroethane-D4	94%		80-121%
2037-26-5	Toluene-D8	85%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	BYPASS 110821		
Lab Sample ID:	JD35270-4	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187640.D	1	11/17/21 19:34	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BYPASS 110821		
Lab Sample ID:	JD35270-4	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		85-118%
17060-07-0	1,2-Dichloroethane-D4	94%		80-121%
2037-26-5	Toluene-D8	86%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WB SEEPS 110821		
Lab Sample ID:	JD35270-5	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187641.D	1	11/17/21 20:03	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	0.60	1.0	0.59	ug/l	J
156-59-2	cis-1,2-Dichloroethene	161	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.4	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WB SEEPS 110821		
Lab Sample ID:	JD35270-5	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	12.0	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	46.5	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	93%		80-121%
2037-26-5	Toluene-D8	87%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	OUTFALL 001		
Lab Sample ID:	JD35270-6	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187636.D	1	11/17/21 17:37	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	2.6	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	9.5	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	0.67	1.0	0.56	ug/l	J
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTFALL 001		
Lab Sample ID:	JD35270-6	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	93%		80-121%
2037-26-5	Toluene-D8	87%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WOODEN SLUICE 110821		
Lab Sample ID:	JD35270-7	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187642.D	1	11/17/21 20:32	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	1.9	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	7.5	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.9	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WOODEN SLUICE 110821		
Lab Sample ID:	JD35270-7	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	2.6	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		85-118%
17060-07-0	1,2-Dichloroethane-D4	93%		80-121%
2037-26-5	Toluene-D8	86%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	WS 110821		
Lab Sample ID:	JD35270-8	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187643.D	1	11/17/21 21:02	TDN	n/a	n/a	V2C8352
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	2.1	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [a]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [b]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	7.4	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.7	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [a]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WS 110821		
Lab Sample ID:	JD35270-8	**Date Sampled:**	11/08/21
Matrix:	AQ - Ground Water	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [c]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK [a]	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	2.9	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		85-118%
17060-07-0	1,2-Dichloroethane-D4	94%		80-121%
2037-26-5	Toluene-D8	85%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(c) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EB-110821		
Lab Sample ID:	JD35270-9	**Date Sampled:**	11/08/21
Matrix:	AQ - Equipment Blank	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C187687.D	1	11/18/21 19:37	TDN	n/a	n/a	V2C8354
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone [a]	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane [b]	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane [c]	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene [b]	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone [a]	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EB-110821		
Lab Sample ID:	JD35270-9	**Date Sampled:**	11/08/21
Matrix:	AQ - Equipment Blank	**Date Received:**	11/13/21
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	EPT, Ithaca, NY		

VOA TCL List (OLM4.2)

CAS No.	Compound	Result	RL	MDL	Units	Q
79-20-9	Methyl Acetate [a]	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		85-118%
17060-07-0	1,2-Dichloroethane-D4	90%		80-121%
2037-26-5	Toluene-D8	84%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

(a) Associated CCV outside of control limits low. A sensitivity check was analyzed to demonstrate system suitability to detect affected analyte. Sample was ND.
(b) Associated CCV outside of control limits high, sample was ND.
(c) This compound in blank spike is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.

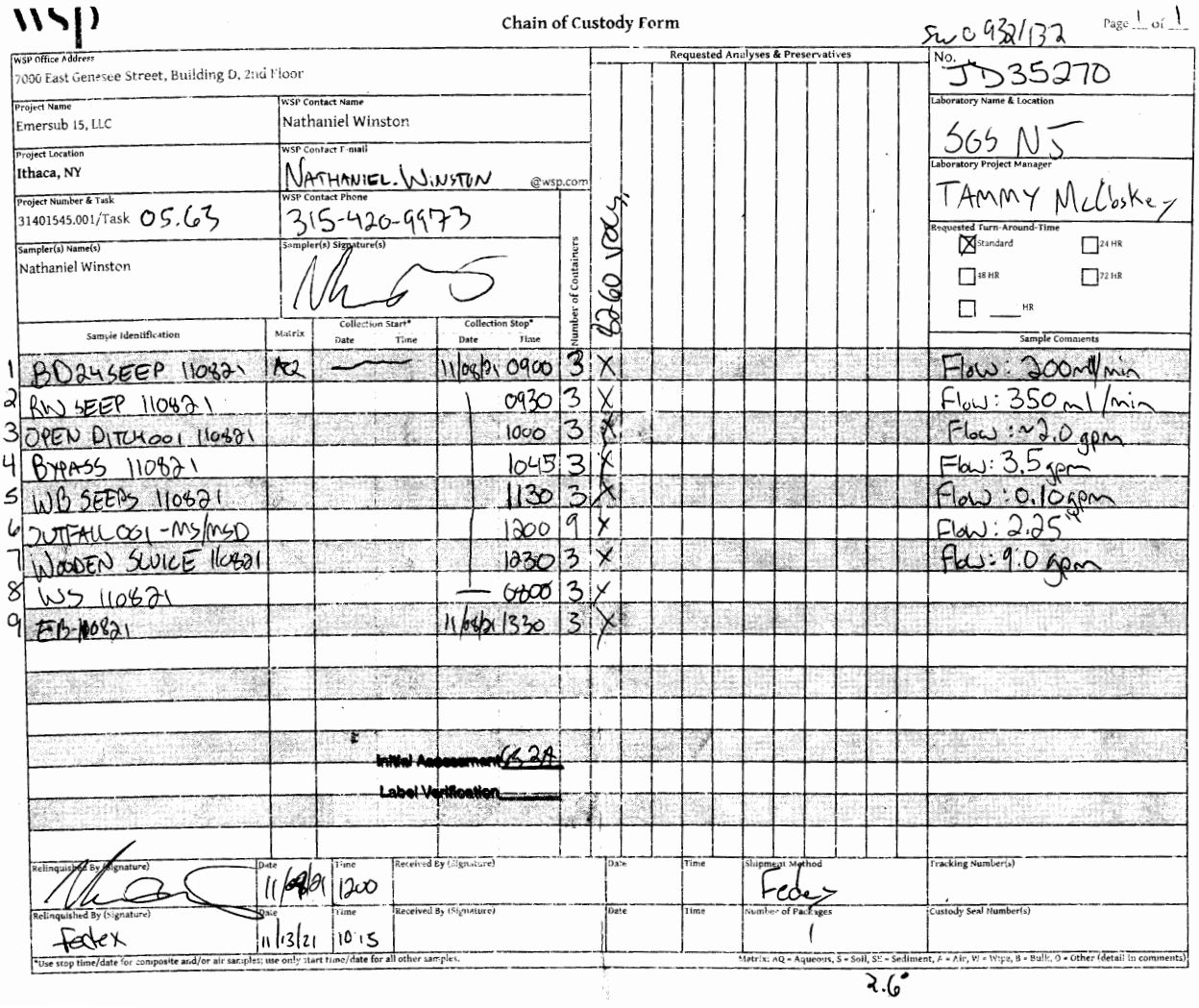
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



wsp

Chain of Custody Form

SW0932/132 Page 1 of 1

WSP Office Address: 7000 East Genesee Street, Building D, 2nd Floor	Requested Analyses & Preservatives
Project Name: Emersub 15, LLC	WSP Contact Name: Nathaniel Winston
Project Location: Ithaca, NY	WSP Contact E-mail: NATHANIEL.WINSTON @wsp.com
Project Number & Task: 31401545.001/Task 05.63	WSP Contact Phone: 315-420-9973
Sampler(s) Name(s): Nathaniel Winston	Sampler(s) Signature(s):

No. JD35270

Laboratory Name & Location: SGS NJ

Laboratory Project Manager: TAMMY McCloskey

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	8260 VOCs	Sample Comments
1	BD24SEEP 110821	AQ	—	—	11/08/21	0900	3	X	Flow: 200ml/min
2	RW SEEP 110821					0930	3	X	Flow: 350 ml/min
3	OPEN DITCH001 110821					1000	3	X	Flow: ~2.0 gpm
4	BYPASS 110821					1045	3	X	Flow: 3.5 gpm
5	WB SEEPS 110821					1130	3	X	Flow: 0.10 gpm
6	OUTFALL001-MS/MSD					1200	9	X	Flow: 2.25 gpm
7	WOODEN SLUICE 110821					1230	3	X	Flow: 9.0 gpm
8	WS 110821					0000	3	X	
9	EB-110821				11/08/21	1330	3	X	

Initial Assessment: GS 2A

Label Verification: ____

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	11/08/21	1200				Fedex	
Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
Fedex	11/13/21	10:15				1	

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

2.6°

V849

5.1

5

JD35270: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD35270 **Client:** WSP **Project:** EPT, ITHACA, NY

Date / Time Received: 11/13/2021 10:15:00 AM **Delivery Method:** FEDEX **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (1.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD35270: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD35270

EPT, Ithaca, NY
Project No: 31401545.001/Task 05.63

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD35270-1 Collected: 08-NOV-21 09:00 By: NW BD24 SEEP 110821				Received: 13-NOV-21	By: KG	
JD35270-1	SW846 8260D	17-NOV-21 18:06	TDN			V8260TCL42
JD35270-2 Collected: 08-NOV-21 09:30 By: NW RW SEEP 110821				Received: 13-NOV-21	By: KG	
JD35270-2	SW846 8260D	17-NOV-21 18:35	TDN			V8260TCL42
JD35270-3 Collected: 08-NOV-21 10:00 By: NW OPEN DITCH 001 110821				Received: 13-NOV-21	By: KG	
JD35270-3	SW846 8260D	17-NOV-21 19:05	TDN			V8260TCL42
JD35270-4 Collected: 08-NOV-21 10:45 By: NW BYPASS 110821				Received: 13-NOV-21	By: KG	
JD35270-4	SW846 8260D	17-NOV-21 19:34	TDN			V8260TCL42
JD35270-5 Collected: 08-NOV-21 11:30 By: NW WB SEEPS 110821				Received: 13-NOV-21	By: KG	
JD35270-5	SW846 8260D	17-NOV-21 20:03	TDN			V8260TCL42
JD35270-6 Collected: 08-NOV-21 12:00 By: NW OUTFALL 001				Received: 13-NOV-21	By: KG	
JD35270-6	SW846 8260D	17-NOV-21 17:37	TDN			V8260TCL42
JD35270-7 Collected: 08-NOV-21 12:30 By: NW WOODEN SLUICE 110821				Received: 13-NOV-21	By: KG	
JD35270-7	SW846 8260D	17-NOV-21 20:32	TDN			V8260TCL42
JD35270-8 Collected: 08-NOV-21 08:00 By: NW WS 110821				Received: 13-NOV-21	By: KG	
JD35270-8	SW846 8260D	17-NOV-21 21:02	TDN			V8260TCL42

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD35270

EPT, Ithaca, NY
Project No: 31401545.001/Task 05.63

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD35270-9 EB-110821	Collected: 08-NOV-21 13:30 By: NW			Received: 13-NOV-21 By: KG		
JD35270-9	SW846 8260D	18-NOV-21 19:37	TDN			V8260TCL42

SGS Internal Chain of Custody

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Received: 11/13/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD35270-1.2	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-1.2	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-1.2	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-1.2	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-2.1	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-2.1	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-2.1	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-2.1	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-3.2	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-3.2	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-3.2	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-3.2	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-4.2	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-4.2	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-4.2	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-4.2	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-5.2	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-5.2	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-5.2	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-5.2	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-6.1	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-6.1	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-6.1	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-6.1	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-6.4	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-6.4	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-6.4	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-6.4	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-6.5	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-6.5	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-6.5	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-6.5	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-7.2	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-7.2	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-7.2	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-7.2	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage

SGS Internal Chain of Custody

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Received: 11/13/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD35270-8.1	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-8.1	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-8.1	GCMS2C	Thien Nguyen	11/18/21 11:52	Unload from Instrument
JD35270-8.1	Thien Nguyen	Secured Storage	11/18/21 11:52	Return to Storage
JD35270-9.1	Secured Storage	Thien Nguyen	11/17/21 10:41	Retrieve from Storage
JD35270-9.1	Thien Nguyen	GCMS2C	11/17/21 10:41	Load on Instrument
JD35270-9.1	GCMS2C	Thien Nguyen	11/17/21 14:47	Unload from Instrument
JD35270-9.1	Thien Nguyen	Secured Storage	11/17/21 14:47	Return to Storage
JD35270-9.1	Secured Storage	Thien Nguyen	11/18/21 12:12	Retrieve from Storage
JD35270-9.1	Thien Nguyen	GCMS2C	11/18/21 12:12	Load on Instrument
JD35270-9.1	GCMS2C	Thien Nguyen	11/19/21 09:53	Unload from Instrument
JD35270-9.1	Thien Nguyen	Secured Storage	11/19/21 09:53	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8352-MB	2C187625.D	1	11/17/21	TDN	n/a	n/a	V2C8352

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-1, JD35270-2, JD35270-3, JD35270-4, JD35270-5, JD35270-6, JD35270-7, JD35270-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane [a]	ND	0.50	0.30	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8352-MB	2C187625.D	1	11/17/21	TDN	n/a	n/a	V2C8352

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-1, JD35270-2, JD35270-3, JD35270-4, JD35270-5, JD35270-6, JD35270-7, JD35270-8

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane [a]	ND	0.50	0.27	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	85-118%
17060-07-0	1,2-Dichloroethane-D4	93%	80-121%
2037-26-5	Toluene-D8	86%	80-120%
460-00-4	4-Bromofluorobenzene	108%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) MDL from current instrument.

Method Blank Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8354-MB	2C187675.D	1	11/18/21	TDN	n/a	n/a	V2C8354

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-9

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.1	ug/l	
71-43-2	Benzene	ND	0.50	0.43	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.45	ug/l	
75-25-2	Bromoform	ND	1.0	0.63	ug/l	
74-83-9	Bromomethane	ND	2.0	1.6	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	6.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.46	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.55	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.56	ug/l	
75-00-3	Chloroethane	ND	1.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	1.0	0.76	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.78	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.53	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.56	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.48	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.53	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.54	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.51	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.56	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.57	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.60	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.59	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.51	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.51	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
76-13-1	Freon 113	ND	5.0	0.58	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.65	ug/l	
79-20-9	Methyl Acetate	ND	5.0	0.80	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.60	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.51	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.9	ug/l	

Method Blank Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8354-MB	2C187675.D	1	11/18/21	TDN	n/a	n/a	V2C8354

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-9

CAS No.	Compound	Result	RL	MDL	Units	Q
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.49	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.65	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.90	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.54	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.53	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.53	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	85-118%
17060-07-0	1,2-Dichloroethane-D4	89%	80-121%
2037-26-5	Toluene-D8	84%	80-120%
460-00-4	4-Bromofluorobenzene	110%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8354-BS	2C187673.D	1	11/18/21	TDN	n/a	n/a	V2C8354

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	207	104	63-137
71-43-2	Benzene	50	48.5	97	78-117
75-27-4	Bromodichloromethane	50	56.4	113	83-123
75-25-2	Bromoform	50	50.3	101	80-140
74-83-9	Bromomethane	50	76.7	153	26-167
78-93-3	2-Butanone (MEK)	200	227	114	73-135
75-15-0	Carbon disulfide	50	47.8	96	60-131
56-23-5	Carbon tetrachloride	50	53.0	106	75-127
108-90-7	Chlorobenzene	50	48.6	97	83-115
75-00-3	Chloroethane	50	76.6	153* [a]	61-135
67-66-3	Chloroform	50	46.6	93	76-118
74-87-3	Chloromethane	50	50.6	101	46-144
110-82-7	Cyclohexane	50	49.6	99	67-128
96-12-8	1,2-Dibromo-3-chloropropane	50	41.8	84	75-135
124-48-1	Dibromochloromethane	50	48.0	96	84-128
106-93-4	1,2-Dibromoethane	50	46.7	93	82-129
95-50-1	1,2-Dichlorobenzene	50	58.4	117	85-117
541-73-1	1,3-Dichlorobenzene	50	59.8	120* [b]	83-116
106-46-7	1,4-Dichlorobenzene	50	59.8	120* [b]	82-115
75-71-8	Dichlorodifluoromethane	50	40.3	81	49-153
75-34-3	1,1-Dichloroethane	50	45.7	91	75-122
107-06-2	1,2-Dichloroethane	50	42.6	85	74-116
75-35-4	1,1-Dichloroethene	50	45.7	91	68-129
156-59-2	cis-1,2-Dichloroethene	50	45.6	91	78-120
156-60-5	trans-1,2-Dichloroethene	50	46.7	93	74-125
78-87-5	1,2-Dichloropropane	50	53.4	107	80-120
10061-01-5	cis-1,3-Dichloropropene	50	59.9	120	84-123
10061-02-6	trans-1,3-Dichloropropene	50	43.6	87	84-124
100-41-4	Ethylbenzene	50	46.3	93	80-115
76-13-1	Freon 113	50	50.9	102	66-136
591-78-6	2-Hexanone	200	180	90	74-132
98-82-8	Isopropylbenzene	50	49.2	98	79-120
79-20-9	Methyl Acetate	50	37.9	76	65-133
108-87-2	Methylcyclohexane	50	53.6	107	67-136
1634-04-4	Methyl Tert Butyl Ether	50	44.5	89	77-124
108-10-1	4-Methyl-2-pentanone(MIBK)	200	243	122	77-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8354-BS	2C187673.D	1	11/18/21	TDN	n/a	n/a	V2C8354

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-09-2	Methylene chloride	50	45.3	91	74-125
100-42-5	Styrene	50	48.8	98	83-122
79-34-5	1,1,2,2-Tetrachloroethane	50	56.7	113	78-122
127-18-4	Tetrachloroethene	50	47.6	95	75-125
108-88-3	Toluene	50	44.2	88	80-115
120-82-1	1,2,4-Trichlorobenzene	50	55.0	110	77-137
71-55-6	1,1,1-Trichloroethane	50	47.1	94	77-124
79-00-5	1,1,2-Trichloroethane	50	42.6	85	83-118
79-01-6	Trichloroethene	50	54.9	110	80-123
75-69-4	Trichlorofluoromethane	50	51.0	102	71-134
75-01-4	Vinyl chloride	50	50.6	101	56-138
1330-20-7	Xylene (total)	150	148	99	81-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	85-118%
17060-07-0	1,2-Dichloroethane-D4	90%	80-121%
2037-26-5	Toluene-D8	88%	80-120%
460-00-4	4-Bromofluorobenzene	105%	80-120%

(a) High percent recovery and no associated positive reported in the QC batch.
(b) Outside of in house control limits, but within the marginal exceedance limits.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8352-BS	2C187622.D	1	11/17/21	TDN	n/a	n/a	V2C8352
V2C8352-BSD	2C187623.D	1	11/17/21	TDN	n/a	n/a	V2C8352

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-1, JD35270-2, JD35270-3, JD35270-4, JD35270-5, JD35270-6, JD35270-7, JD35270-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	200	175	88	175	88	0	63-137/10
71-43-2	Benzene	50	47.7	95	47.7	95	0	78-117/9
75-27-4	Bromodichloromethane	50	57.9	116	57.5	115	1	83-123/7
75-25-2	Bromoform	50	51.4	103	50.8	102	1	80-140/8
74-83-9	Bromomethane	50	70.2	140	80.6	161	14	26-167/25
78-93-3	2-Butanone (MEK)	200	203	102	206	103	1	73-135/9
75-15-0	Carbon disulfide	50	44.5	89	43.4	87	3	60-131/14
56-23-5	Carbon tetrachloride	50	51.7	103	51.5	103	0	75-127/12
108-90-7	Chlorobenzene	50	48.2	96	48.2	96	0	83-115/9
75-00-3	Chloroethane	50	74.0	148* [a]	64.1	128	14	61-135/14
67-66-3	Chloroform	50	47.9	96	47.9	96	0	76-118/9
74-87-3	Chloromethane	50	44.8	90	49.2	98	9	46-144/16
110-82-7	Cyclohexane	50	52.4	105	51.5	103	2	67-128/15
96-12-8	1,2-Dibromo-3-chloropropane	50	44.6	89	45.1	90	1	75-135/10
124-48-1	Dibromochloromethane	50	46.6	93	45.5	91	2	84-128/7
106-93-4	1,2-Dibromoethane	50	44.9	90	44.3	89	1	82-129/7
95-50-1	1,2-Dichlorobenzene	50	56.6	113	57.3	115	1	85-117/7
541-73-1	1,3-Dichlorobenzene	50	57.9	116	58.2	116	1	83-116/8
106-46-7	1,4-Dichlorobenzene	50	58.3	117* [b]	59.0	118* [b]	1	82-115/8
75-71-8	Dichlorodifluoromethane	50	44.0	88	45.8	92	4	49-153/16
75-34-3	1,1-Dichloroethane	50	45.1	90	44.2	88	2	75-122/10
107-06-2	1,2-Dichloroethane	50	43.1	86	42.6	85	1	74-116/7
75-35-4	1,1-Dichloroethene	50	41.9	84	40.7	81	3	68-129/14
156-59-2	cis-1,2-Dichloroethene	50	43.7	87	43.4	87	1	78-120/9
156-60-5	trans-1,2-Dichloroethene	50	44.4	89	43.6	87	2	74-125/12
78-87-5	1,2-Dichloropropane	50	54.1	108	53.0	106	2	80-120/8
10061-01-5	cis-1,3-Dichloropropene	50	61.1	122	60.2	120	1	84-123/8
10061-02-6	trans-1,3-Dichloropropene	50	43.0	86	42.8	86	0	84-124/7
100-41-4	Ethylbenzene	50	46.5	93	46.2	92	1	80-115/10
76-13-1	Freon 113	50	44.6	89	44.4	89	0	66-136/16
591-78-6	2-Hexanone	200	171	86	169	85	1	74-132/8
98-82-8	Isopropylbenzene	50	49.5	99	49.4	99	0	79-120/10
79-20-9	Methyl Acetate	50	35.4	71	39.5	79	11* [c]	65-133/9
108-87-2	Methylcyclohexane	50	54.1	108	52.6	105	3	67-136/15
1634-04-4	Methyl Tert Butyl Ether	50	45.2	90	45.2	90	0	77-124/9
108-10-1	4-Methyl-2-pentanone(MIBK)	200	249	125	249	125	0	77-129/8

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C8352-BS	2C187622.D	1	11/17/21	TDN	n/a	n/a	V2C8352
V2C8352-BSD	2C187623.D	1	11/17/21	TDN	n/a	n/a	V2C8352

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-1, JD35270-2, JD35270-3, JD35270-4, JD35270-5, JD35270-6, JD35270-7, JD35270-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	50	45.2	90	44.2	88	2	74-125/9
100-42-5	Styrene	50	49.3	99	48.9	98	1	83-122/8
79-34-5	1,1,2,2-Tetrachloroethane	50	57.6	115	57.7	115	0	78-122/8
127-18-4	Tetrachloroethene	50	42.3	85	42.1	84	0	75-125/12
108-88-3	Toluene	50	42.0	84	42.2	84	0	80-115/10
120-82-1	1,2,4-Trichlorobenzene	50	54.4	109	56.2	112	3	77-137/10
71-55-6	1,1,1-Trichloroethane	50	46.0	92	45.9	92	0	77-124/12
79-00-5	1,1,2-Trichloroethane	50	41.0	82* [b]	40.8	82* [b]	0	83-118/7
79-01-6	Trichloroethene	50	52.6	105	52.0	104	1	80-123/11
75-69-4	Trichlorofluoromethane	50	52.2	104	47.0	94	10	71-134/15
75-01-4	Vinyl chloride	50	50.2	100	51.9	104	3	56-138/17
1330-20-7	Xylene (total)	150	149	99	148	99	1	81-118/9

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	103%	85-118%
17060-07-0	1,2-Dichloroethane-D4	92%	91%	80-121%
2037-26-5	Toluene-D8	86%	86%	80-120%
460-00-4	4-Bromofluorobenzene	105%	107%	80-120%

(a) High percent recovery and no associated positive reported in the QC batch.
(b) Outside of in house control limits, but within reasonable method recovery limits.
(c) Outside in house control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD35270-6MS	2C187633.D	1	11/17/21	TDN	n/a	n/a	V2C8352
JD35270-6MSD	2C187634.D	1	11/17/21	TDN	n/a	n/a	V2C8352
JD35270-6	2C187636.D	1	11/17/21	TDN	n/a	n/a	V2C8352

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-1, JD35270-2, JD35270-3, JD35270-4, JD35270-5, JD35270-6, JD35270-7, JD35270-8

CAS No.	Compound	JD35270-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	141	71	200	143	72	1	52-133/18
71-43-2	Benzene	ND		50	42.7	85	50	42.4	85	1	55-129/11
75-27-4	Bromodichloromethane	2.6		50	55.9	107	50	56.2	107	1	74-123/11
75-25-2	Bromoform	ND		50	47.0	94	50	46.5	93	1	69-135/12
74-83-9	Bromomethane	ND		50	63.0	126	50	65.2	130	3	11-167/43
78-93-3	2-Butanone (MEK)	ND		200	188	94	200	185	93	2	64-131/15
75-15-0	Carbon disulfide	ND		50	32.6	65	50	33.0	66	1	54-137/15
56-23-5	Carbon tetrachloride	ND		50	38.5	77	50	39.1	78	2	68-132/11
108-90-7	Chlorobenzene	ND		50	44.5	89	50	44.5	89	0	71-119/10
75-00-3	Chloroethane	ND		50	55.4	111	50	58.3	117	5	50-146/18
67-66-3	Chloroform	9.5		50	51.7	84	50	51.3	84	1	67-120/11
74-87-3	Chloromethane	ND		50	39.5	79	50	40.9	82	3	42-146/17
110-82-7	Cyclohexane	ND		50	24.9	50* [a]	50	25.3	51* [a]	2	56-147/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	41.9	84	50	42.6	85	2	65-130/15
124-48-1	Dibromochloromethane	0.67	J	50	42.7	84	50	43.3	85	1	74-125/10
106-93-4	1,2-Dibromoethane	ND		50	42.1	84	50	41.7	83	1	74-125/9
95-50-1	1,2-Dichlorobenzene	ND		50	52.3	105	50	53.0	106	1	73-117/10
541-73-1	1,3-Dichlorobenzene	ND		50	53.5	107	50	53.9	108	1	73-117/10
106-46-7	1,4-Dichlorobenzene	ND		50	54.2	108	50	54.3	109	0	70-117/10
75-71-8	Dichlorodifluoromethane	ND		50	12.4	25* [a]	50	12.5	25* [a]	1	46-169/17
75-34-3	1,1-Dichloroethane	ND		50	41.6	83	50	41.4	83	0	66-124/13
107-06-2	1,2-Dichloroethane	ND		50	40.7	81	50	40.5	81	0	66-115/10
75-35-4	1,1-Dichloroethene	ND		50	28.5	57* [a]	50	29.3	59* [a]	3	60-136/15
156-59-2	cis-1,2-Dichloroethene	ND		50	41.6	83	50	40.9	82	2	55-133/12
156-60-5	trans-1,2-Dichloroethene	ND		50	37.6	75	50	38.1	76	1	67-127/13
78-87-5	1,2-Dichloropropane	ND		50	49.5	99	50	50.0	100	1	72-120/11
10061-01-5	cis-1,3-Dichloropropene	ND		50	56.6	113	50	56.5	113	0	75-123/12
10061-02-6	trans-1,3-Dichloropropene	ND		50	40.4	81	50	40.1	80	1	73-122/11
100-41-4	Ethylbenzene	ND		50	41.7	83	50	41.4	83	1	44-136/10
76-13-1	Freon 113	ND		50	25.9	52* [a]	50	25.5	51* [a]	2	61-148/15
591-78-6	2-Hexanone	ND		200	159	80	200	160	80	1	64-129/13
98-82-8	Isopropylbenzene	ND		50	43.5	87	50	43.4	87	0	71-122/11
79-20-9	Methyl Acetate	ND		50	37.1	74	50	34.5	69	7	55-127/17
108-87-2	Methylcyclohexane	ND		50	34.4	69	50	34.5	69	0	58-148/13
1634-04-4	Methyl Tert Butyl Ether	ND		50	43.6	87	50	43.6	87	0	64-122/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	238	119	200	234	117	2	68-128/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD35270-6MS	2C187633.D	1	11/17/21	TDN	n/a	n/a	V2C8352
JD35270-6MSD	2C187634.D	1	11/17/21	TDN	n/a	n/a	V2C8352
JD35270-6	2C187636.D	1	11/17/21	TDN	n/a	n/a	V2C8352

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-1, JD35270-2, JD35270-3, JD35270-4, JD35270-5, JD35270-6, JD35270-7, JD35270-8

CAS No.	Compound	JD35270-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		50	42.9	86	50	42.3	85	1	65-126/13
100-42-5	Styrene	ND		50	19.8	40* [a]	50	14.9	30* [a]	28* [a]	73-124/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	54.7	109	50	55.1	110	1	68-120/15
127-18-4	Tetrachloroethene	ND		50	37.3	75	50	36.0	72	4	61-134/11
108-88-3	Toluene	ND		50	38.0	76	50	38.0	76	0	54-130/11
120-82-1	1,2,4-Trichlorobenzene	ND		50	50.4	101	50	51.8	104	3	67-134/14
71-55-6	1,1,1-Trichloroethane	ND		50	39.0	78	50	39.2	78	1	66-130/12
79-00-5	1,1,2-Trichloroethane	ND		50	39.8	80	50	39.0	78	2	73-117/11
79-01-6	Trichloroethene	ND		50	45.6	91	50	45.4	91	0	56-139/11
75-69-4	Trichlorofluoromethane	ND		50	22.4	45* [a]	50	23.4	47* [a]	4	63-150/16
75-01-4	Vinyl chloride	ND		50	28.9	58	50	29.8	60	3	48-148/17
1330-20-7	Xylene (total)	ND		150	135	90	150	133	89	1	46-138/10

CAS No.	Surrogate Recoveries	MS	MSD	JD35270-6	Limits
1868-53-7	Dibromofluoromethane	107%	106%	106%	85-118%
17060-07-0	1,2-Dichloroethane-D4	93%	100%	93%	80-121%
2037-26-5	Toluene-D8	88%	87%	87%	80-120%
460-00-4	4-Bromofluorobenzene	106%	108%	110%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD34929-13MS	2C187684.D	1	11/18/21	TDN	n/a	n/a	V2C8354
JD34929-13MSD	2C187685.D	1	11/18/21	TDN	n/a	n/a	V2C8354
JD34929-13	2C187676.D	1	11/18/21	TDN	n/a	n/a	V2C8354

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-9

CAS No.	Compound	JD34929-13 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		200	128	64	200	160	80	22* a	52-133/18
71-43-2	Benzene	ND		50	42.1	84	50	53.2	106	23* a	55-129/11
75-27-4	Bromodichloromethane	ND		50	50.8	102	50	64.3	129* a	23* a	74-123/11
75-25-2	Bromoform	ND		50	44.9	90	50	57.6	115	25* a	69-135/12
74-83-9	Bromomethane	ND		50	55.2	110	50	77.7	155	34	11-167/43
78-93-3	2-Butanone (MEK)	ND		200	170	85	200	215	108	23* a	64-131/15
75-15-0	Carbon disulfide	ND		50	34.0	68	50	44.9	90	28* a	54-137/15
56-23-5	Carbon tetrachloride	ND		50	38.4	77	50	49.9	100	26* a	68-132/11
108-90-7	Chlorobenzene	ND		50	43.3	87	50	54.7	109	23* a	71-119/10
75-00-3	Chloroethane	ND		50	48.8	98	50	62.8	126	25* a	50-146/18
67-66-3	Chloroform	ND		50	40.9	82	50	52.7	105	25* a	67-120/11
74-87-3	Chloromethane	ND		50	35.5	71	50	47.1	94	28* a	42-146/17
110-82-7	Cyclohexane	ND		50	21.5	43* a	50	27.6	55* a	25* a	56-147/14
96-12-8	1,2-Dibromo-3-chloropropane	ND		50	39.1	78	50	49.6	99	24* a	65-130/15
124-48-1	Dibromochloromethane	ND		50	42.5	85	50	54.1	108	24* a	74-125/10
106-93-4	1,2-Dibromoethane	ND		50	42.2	84	50	53.7	107	24* a	74-125/9
95-50-1	1,2-Dichlorobenzene	ND		50	53.0	106	50	67.1	134* a	23* a	73-117/10
541-73-1	1,3-Dichlorobenzene	ND		50	54.6	109	50	68.4	137* a	22* a	73-117/10
106-46-7	1,4-Dichlorobenzene	ND		50	54.3	109	50	68.1	136* a	23* a	70-117/10
75-71-8	Dichlorodifluoromethane	ND		50	8.7	17* a	50	11.5	23* a	28* a	46-169/17
75-34-3	1,1-Dichloroethane	ND		50	39.5	79	50	50.4	101	24* a	66-124/13
107-06-2	1,2-Dichloroethane	ND		50	38.9	78	50	48.9	98	23* a	66-115/10
75-35-4	1,1-Dichloroethene	ND		50	31.2	62	50	40.1	80	25* a	60-136/15
156-59-2	cis-1,2-Dichloroethene	ND		50	39.8	80	50	50.8	102	24* a	55-133/12
156-60-5	trans-1,2-Dichloroethene	ND		50	38.5	77	50	48.6	97	23* a	67-127/13
78-87-5	1,2-Dichloropropane	ND		50	48.1	96	50	59.9	120	22* a	72-120/11
10061-01-5	cis-1,3-Dichloropropene	ND		50	53.9	108	50	66.9	134* a	22* a	75-123/12
10061-02-6	trans-1,3-Dichloropropene	ND		50	38.4	77	50	48.4	97	23* a	73-122/11
100-41-4	Ethylbenzene	ND		50	39.0	78	50	49.7	99	24* a	44-136/10
76-13-1	Freon 113	ND		50	27.9	56* a	50	36.0	72	25* a	61-148/15
591-78-6	2-Hexanone	ND		200	146	73	200	184	92	23* a	64-129/13
98-82-8	Isopropylbenzene	ND		50	40.0	80	50	50.8	102	24* a	71-122/11
79-20-9	Methyl Acetate	ND		50	33.6	67	50	43.4	87	25* a	55-127/17
108-87-2	Methylcyclohexane	ND		50	33.0	66	50	41.6	83	23* a	58-148/13
1634-04-4	Methyl Tert Butyl Ether	ND		50	40.0	80	50	52.3	105	27* a	64-122/11
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	212	106	200	268	134* a	23* a	68-128/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD34929-13MS	2C187684.D	1	11/18/21	TDN	n/a	n/a	V2C8354
JD34929-13MSD	2C187685.D	1	11/18/21	TDN	n/a	n/a	V2C8354
JD34929-13	2C187676.D	1	11/18/21	TDN	n/a	n/a	V2C8354

The QC reported here applies to the following samples: **Method:** SW846 8260D

JD35270-9

CAS No.	Compound	JD34929-13 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-09-2	Methylene chloride	ND		50	40.9	82	50	52.7	105	25* [a]	65-126/13
100-42-5	Styrene	ND		50	42.9	86	50	54.2	108	23* [a]	73-124/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	53.6	107	50	66.7	133* [a]	22* [a]	68-120/15
127-18-4	Tetrachloroethene	ND		50	37.3	75	50	47.0	94	23* [a]	61-134/11
108-88-3	Toluene	ND		50	37.5	75	50	47.1	94	23* [a]	54-130/11
120-82-1	1,2,4-Trichlorobenzene	ND		50	48.8	98	50	64.7	129	28* [a]	67-134/14
71-55-6	1,1,1-Trichloroethane	ND		50	36.2	72	50	47.6	95	27* [a]	66-130/12
79-00-5	1,1,2-Trichloroethane	ND		50	38.6	77	50	49.3	99	24* [a]	73-117/11
79-01-6	Trichloroethene	ND		50	45.5	91	50	57.2	114	23* [a]	56-139/11
75-69-4	Trichlorofluoromethane	ND		50	19.8	40* [a]	50	25.7	51* [a]	26* [a]	63-150/16
75-01-4	Vinyl chloride	ND		50	24.8	50	50	33.0	66	28* [a]	48-148/17
1330-20-7	Xylene (total)	ND		150	126	84	150	160	107	24* [a]	46-138/10

CAS No.	Surrogate Recoveries	MS	MSD	JD34929-13	Limits
1868-53-7	Dibromofluoromethane	104%	102%	106%	85-118%
17060-07-0	1,2-Dichloroethane-D4	93%	92%	90%	80-121%
2037-26-5	Toluene-D8	88%	87%	83%	80-120%
460-00-4	4-Bromofluorobenzene	107%	106%	109%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8274-BFB
Lab File ID: 2C185722.D
Instrument ID: GCMS2C
Injection Date: 09/24/21
Injection Time: 14:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19408	21.0		Pass
75	30.0 - 60.0% of mass 95	46266	50.0		Pass
95	Base peak, 100% relative abundance	92557	100.0		Pass
96	5.0 - 9.0% of mass 95	6264	6.77		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	86328	93.3		Pass
175	5.0 - 9.0% of mass 174	6698	7.24	(7.76) [a]	Pass
176	95.0 - 101.0% of mass 174	84109	90.9	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	5457	5.90	(6.49) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C8274-IC8274	2C185723.D	09/24/21	16:44	02:05	Initial cal 0.2
V2C8274-IC8274	2C185724.D	09/24/21	17:13	02:34	Initial cal 0.5
V2C8274-IC8274	2C185725.D	09/24/21	17:42	03:03	Initial cal 1
V2C8274-IC8274	2C185726.D	09/24/21	18:10	03:31	Initial cal 2
V2C8274-IC8274	2C185727.D	09/24/21	18:39	04:00	Initial cal 4
V2C8274-IC8274	2C185728.D	09/24/21	19:07	04:28	Initial cal 8
V2C8274-IC8274	2C185729.D	09/24/21	19:36	04:57	Initial cal 20
V2C8274-ICC8274	2C185730.D	09/24/21	20:05	05:26	Initial cal 50
V2C8274-IC8274	2C185731.D	09/24/21	20:34	05:55	Initial cal 100
V2C8274-IC8274	2C185732.D	09/24/21	21:03	06:24	Initial cal 200
V2C8274-ICV8274	2C185735.D	09/24/21	22:30	07:51	Initial cal verification 50
V2C8274-ICV8274	2C185736.D	09/24/21	22:59	08:20	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8352-BFB
Lab File ID: 2C187620.D
Instrument ID: GCMS2C
Injection Date: 11/17/21
Injection Time: 09:18

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	30421	16.4		Pass
75	30.0 - 60.0% of mass 95	85197	46.0		Pass
95	Base peak, 100% relative abundance	185024	100.0		Pass
96	5.0 - 9.0% of mass 95	12113	6.55		Pass
173	Less than 2.0% of mass 174	661	0.36	(0.35) [a]	Pass
174	50.0 - 120.0% of mass 95	189312	102.3		Pass
175	5.0 - 9.0% of mass 174	14610	7.90	(7.72) [a]	Pass
176	95.0 - 101.0% of mass 174	189184	102.2	(99.9) [a]	Pass
177	5.0 - 9.0% of mass 176	12021	6.50	(6.35) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C8352-CC8274	2C187620.D	11/17/21	09:18	00:00	Continuing cal 50
V2C8352-BS	2C187622.D	11/17/21	10:18	01:00	Blank Spike
V2C8352-BSD	2C187623.D	11/17/21	10:47	01:29	Blank Spike Duplicate
V2C8352-MB	2C187625.D	11/17/21	12:01	02:43	Method Blank
ZZZZZZ	2C187626.D	11/17/21	12:46	03:28	(unrelated sample)
ZZZZZZ	2C187627.D	11/17/21	13:15	03:57	(unrelated sample)
ZZZZZZ	2C187629.D	11/17/21	14:13	04:55	(unrelated sample)
ZZZZZZ	2C187631.D	11/17/21	15:11	05:53	(unrelated sample)
ZZZZZZ	2C187632.D	11/17/21	15:40	06:22	(unrelated sample)
JD35270-6MS	2C187633.D	11/17/21	16:09	06:51	Matrix Spike
JD35270-6MSD	2C187634.D	11/17/21	16:39	07:21	Matrix Spike Duplicate
JD35270-6	2C187636.D	11/17/21	17:37	08:19	OUTFALL 001
JD35270-1	2C187637.D	11/17/21	18:06	08:48	BD24 SEEP 110821
JD35270-2	2C187638.D	11/17/21	18:35	09:17	RW SEEP 110821
JD35270-3	2C187639.D	11/17/21	19:05	09:47	OPEN DITCH 001 110821
JD35270-4	2C187640.D	11/17/21	19:34	10:16	BYPASS 110821
JD35270-5	2C187641.D	11/17/21	20:03	10:45	WB SEEPS 110821
JD35270-7	2C187642.D	11/17/21	20:32	11:14	WOODEN SLUICE 110821
JD35270-8	2C187643.D	11/17/21	21:02	11:44	WS 110821

Instrument Performance Check (BFB)

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8354-BFB
Lab File ID: 2C187669.D
Instrument ID: GCMS2C
Injection Date: 11/18/21
Injection Time: 10:30

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	27373	15.9		Pass
75	30.0 - 60.0% of mass 95	79648	46.2		Pass
95	Base peak, 100% relative abundance	172523	100.0		Pass
96	5.0 - 9.0% of mass 95	10896	6.32		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	177472	102.9		Pass
175	5.0 - 9.0% of mass 174	12885	7.47	(7.26) [a]	Pass
176	95.0 - 101.0% of mass 174	175104	101.5	(98.7) [a]	Pass
177	5.0 - 9.0% of mass 176	10835	6.28	(6.19) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C8354-CC8274	2C187669.D	11/18/21	10:30	00:00	Continuing cal 50
V2C8354-BS	2C187673.D	11/18/21	12:49	02:19	Blank Spike
V2C8354-MB	2C187675.D	11/18/21	13:47	03:17	Method Blank
JD34929-13	2C187676.D	11/18/21	14:16	03:46	(used for QC only; not part of job JD35270)
ZZZZZZ	2C187677.D	11/18/21	14:44	04:14	(unrelated sample)
ZZZZZZ	2C187678.D	11/18/21	15:13	04:43	(unrelated sample)
ZZZZZZ	2C187679.D	11/18/21	15:42	05:12	(unrelated sample)
ZZZZZZ	2C187680.D	11/18/21	16:12	05:42	(unrelated sample)
ZZZZZZ	2C187681.D	11/18/21	16:41	06:11	(unrelated sample)
ZZZZZZ	2C187682.D	11/18/21	17:10	06:40	(unrelated sample)
ZZZZZZ	2C187683.D	11/18/21	17:40	07:10	(unrelated sample)
JD34929-13MS	2C187684.D	11/18/21	18:09	07:39	Matrix Spike
JD34929-13MSD	2C187685.D	11/18/21	18:39	08:09	Matrix Spike Duplicate
JD35270-9	2C187687.D	11/18/21	19:37	09:07	EB-110821
ZZZZZZ	2C187688.D	11/18/21	20:06	09:36	(unrelated sample)
ZZZZZZ	2C187689.D	11/18/21	20:35	10:05	(unrelated sample)
ZZZZZZ	2C187690.D	11/18/21	21:04	10:34	(unrelated sample)
ZZZZZZ	2C187691.D	11/18/21	21:33	11:03	(unrelated sample)
ZZZZZZ	2C187692.D	11/18/21	22:02	11:32	(unrelated sample)

Internal Standard Area Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Check Std:	V2C8352-CC8274	**Injection Date:**	11/17/21
Lab File ID:	2C187620.D	**Injection Time:**	09:18
Instrument ID:	GCMS2C	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	236713	8.45	212738	10.90	359077	11.84	585997	14.79	345891	16.97
Upper Limit [a]	473426	8.95	425476	11.40	718154	12.34	1171994	15.29	691782	17.47
Lower Limit [b]	118357	7.95	106369	10.40	179539	11.34	292999	14.29	172946	16.47

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2C8352-BS	236906	8.45	226670	10.90	375325	11.84	593794	14.80	355900	16.97
V2C8352-BSD	244744	8.46	230717	10.90	384026	11.84	604216	14.80	354342	16.97
V2C8352-MB	224543	8.48	198972	10.90	315937	11.84	461607	14.80	290507	16.97
ZZZZZZ	238430	8.45	190160	10.91	295952	11.84	433484	14.80	272315	16.97
ZZZZZZ	309442	8.45	211299	10.91	324029	11.84	473836	14.80	291771	16.97
ZZZZZZ	236477	8.45	206227	10.91	328803	11.84	471645	14.80	337552	16.97
ZZZZZZ	254685	8.46	207154	10.90	327696	11.84	483542	14.80	293035	16.97
ZZZZZZ	237310	8.46	204996	10.90	318899	11.84	460337	14.80	279388	16.97
JD35270-6MS	279542	8.47	225421	10.90	372572	11.84	570172	14.80	344129	16.97
JD35270-6MSD	286818	8.45	236254	10.90	390193	11.84	598328	14.80	354258	16.97
JD35270-6	241935	8.46	217084	10.90	339708	11.84	483024	14.80	294038	16.97
JD35270-1	230260	8.45	218151	10.91	340715	11.84	479305	14.80	292124	16.97
JD35270-2	222522	8.45	208492	10.91	325545	11.84	484267	14.80	294657	16.97
JD35270-3	237168	8.46	205436	10.90	321259	11.84	465845	14.79	284579	16.97
JD35270-4	246487	8.47	207987	10.90	323648	11.84	469268	14.80	287559	16.97
JD35270-5	234276	8.47	211065	10.90	326585	11.84	458702	14.80	285791	16.97
JD35270-7	237609	8.47	205027	10.91	326165	11.84	464680	14.80	283558	16.97
JD35270-8	258730	8.48	209538	10.90	330532	11.84	474561	14.80	288863	16.97

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Check Std:	V2C8354-CC8274	**Injection Date:**	11/18/21
Lab File ID:	2C187669.D	**Injection Time:**	10:30
Instrument ID:	GCMS2C	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	242073	8.44	214750	10.91	349118	11.84	551619	14.80	321519	16.97
Upper Limit [a]	484146	8.94	429500	11.41	698236	12.34	1103238	15.30	643038	17.47
Lower Limit [b]	121037	7.94	107375	10.41	174559	11.34	275810	14.30	160760	16.47

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2C8354-BS	252545	8.46	232053	10.90	381099	11.84	565099	14.80	328125	16.97
V2C8354-MB	216668	8.46	211045	10.91	328086	11.84	476536	14.80	279387	16.97
JD34929-13	212299	8.46	204163	10.90	319173	11.84	469934	14.80	281787	16.97
ZZZZZZ	211700	8.45	200836	10.90	316233	11.84	461690	14.80	274201	16.97
ZZZZZZ	228796	8.46	203097	10.90	315068	11.84	455450	14.80	269514	16.97
ZZZZZZ	224624	8.45	197199	10.90	306273	11.84	453334	14.80	269495	16.97
ZZZZZZ	209602	8.45	207567	10.90	322767	11.84	473061	14.80	275482	16.97
ZZZZZZ	221120	8.46	199805	10.90	316725	11.84	464777	14.80	274754	16.97
ZZZZZZ	216098	8.46	203638	10.90	322106	11.84	463166	14.80	275044	16.97
ZZZZZZ	212283	8.47	201142	10.90	320444	11.84	467412	14.80	272721	16.97
JD34929-13MS	257728	8.46	231758	10.90	375700	11.84	563252	14.80	318865	16.97
JD34929-13MSD	209169	8.46	180828	10.90	294638	11.84	440582	14.80	254102	16.97
JD35270-9	232341	8.46	210309	10.90	330097	11.84	481908	14.80	290635	16.97
ZZZZZZ	232306	8.46	213013	10.90	332451	11.84	481071	14.80	291608	16.97
ZZZZZZ	224754	8.46	200875	10.90	314354	11.84	454154	14.80	283228	16.97
ZZZZZZ	254319	8.45	206164	10.91	328278	11.84	471957	14.80	287114	16.97
ZZZZZZ	245863	8.45	220166	10.90	345972	11.84	499430	14.80	322174	16.97
ZZZZZZ	245179	8.45	208355	10.90	326738	11.84	485279	14.80	297649	16.97

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JD35270-1	2C187637.D	104	93	87	110
JD35270-2	2C187638.D	106	95	86	111
JD35270-3	2C187639.D	107	94	85	110
JD35270-4	2C187640.D	107	94	86	110
JD35270-5	2C187641.D	106	93	87	108
JD35270-6	2C187636.D	106	93	87	110
JD35270-7	2C187642.D	108	93	86	110
JD35270-8	2C187643.D	106	94	85	108
JD35270-9	2C187687.D	105	90	84	109
JD34929-13MS	2C187684.D	104	93	88	107
JD34929-13MSD	2C187685.D	102	92	87	106
JD35270-6MS	2C187633.D	107	93	88	106
JD35270-6MSD	2C187634.D	106	100	87	108
V2C8352-BS	2C187622.D	104	92	86	105
V2C8352-BSD	2C187623.D	103	91	86	107
V2C8352-MB	2C187625.D	108	93	86	108
V2C8354-BS	2C187673.D	103	90	88	105
V2C8354-MB	2C187675.D	105	89	84	110

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	85-118%
S2 = 1,2-Dichloroethane-D4	80-121%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8274-ICC8274
Lab FileID: 2C185730.D

Response Factor Report GCMS2C

Method : C:\MSDCHEM\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Calibration Files
1 =2C185725.D 2 =2C185726.D 100 =2C185731.D 50 =2C185730.D
20 =2C185729.D 200 =2C185732.D 0.5 =2C185724.D 4 =2C185727.D
8 =2C185728.D 0.2 =2C185723.D = =

Compound	1	2	100	50	20	200	0.5	4	8	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9	ISTD											
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol	1.173	1.062	1.136	1.223	1.214	1.168		1.163	1.209		1.168	4.47
4) 1,4-dioxane			0.088	0.092	0.095	0.090		0.074	0.101		0.090	10.16
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane	0.837	0.759	0.769	0.859	0.855	0.784	0.783	0.959	0.901		0.834	8.07
7) dichlorodifluoromethane			0.858	1.025	1.152	1.077	0.999		1.068	1.149	1.047	9.67
8) chloromethane	1.130	0.946	0.926	1.030	1.011	0.895		1.092	1.035		1.008	8.09
9) vinyl chloride	0.905	0.846	0.984	1.112	1.022	0.960	0.930	1.057	1.121		0.993	9.43
10) 1,3-butadiene	0.815	0.797	0.734	0.836	0.850	0.762		0.944	0.907		0.831	8.45
11) bromomethane	1.076	0.991	0.875	0.924	0.828	0.886		0.956	0.921		0.932	8.23
12) chloroethane	0.588	0.561	0.644	0.673	0.604	0.654		0.664	0.658		0.631	6.49
13) trichlorofluoromethane			1.031	1.240	1.335	1.199	1.362		1.244	1.264	1.239	8.71
14) ethyl ether	0.214	0.290	0.303	0.317	0.317	0.328		0.331	0.301		0.300	12.45
15) acrolein			0.149	0.158	0.160	0.153		0.133	0.138		0.149	7.38
16) freon 113	0.560	0.487	0.525	0.583	0.549	0.572	0.508	0.562	0.587		0.548	6.29
17) 1,1-dichloroethene	0.609	0.603	0.544	0.588	0.577	0.584	0.703	0.597	0.601		0.601	7.13
18) acetone	0.093	0.084	0.103	0.108	0.102	0.105	0.098	0.087	0.108		0.099	8.99
19) iodomethane	0.992	1.001	1.088	1.155	1.084	1.130	1.129	1.100	1.098		1.086	5.13
20) acetonitrile			0.104	0.094	0.108	0.112	0.100		0.120	0.117	0.108	8.46
21) carbon disulfide	1.772	1.691	1.873	2.030	1.907	1.967	2.013	1.989	1.985		1.914	6.08
22) methylene chloride	0.661	0.638	0.643	0.692	0.689	0.655	0.744	0.731	0.691		0.683	5.44
23) methyl acetate												

Initial Calibration Summary

Job Number: JD35270 **Sample:** V2C8274-ICC8274
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 2C185730.D
Project: EPT, Ithaca, NY

```
                0.578 0.623 0.582 0.625       0.629 0.622        0.610    3.83
24)  methyl tert butyl ether
      1.826 1.806 1.932 2.103 2.005 1.974 1.976 2.009 1.996        1.959    4.74
25)  trans-1,2-dichloroethene
      0.584 0.577 0.567 0.621 0.612 0.595 0.700 0.625 0.626 0.560  0.607    6.72
26)  hexane
      0.336 0.337 0.314 0.353 0.351 0.349       0.368 0.353        0.345    4.70
27)  di-isopropyl ether
      1.519 1.526 1.753 1.886 1.760 1.833 1.855 1.751 1.765 1.810  1.746    7.23
28)  1,1-dichloroethane
      0.894 0.910 0.943 1.028 0.958 0.997 0.944 0.970 0.983 0.807  0.943    6.58
29)  chloroprene
      0.674 0.693 0.732 0.804 0.746 0.795 0.796 0.785 0.767        0.755    6.25
30)  acrylonitrile
                0.300 0.317 0.305 0.309       0.287 0.305        0.304    3.30
31)  vinyl acetate
                0.079 0.100 0.092 0.094       0.102 0.089        0.093    8.99
32)  ethyl tert-butyl ether
      1.617 1.539 1.809 1.903 1.786 1.873 1.780 1.755 1.802 1.502  1.737    7.88
33)  2-butanone
      0.073 0.080 0.092 0.099 0.096 0.099 0.084 0.084 0.093        0.089   10.25
34)  ethyl acetate
             0.087 0.099 0.105 0.093 0.106       0.093 0.085        0.095    8.76
35)  2,2-dichloropropane
      0.759 0.788 0.889 0.963 0.913 0.929 1.081 0.926 0.946 0.908  0.910    9.85
36)  cis-1,2-dichloroethene
      0.680 0.594 0.619 0.669 0.639 0.645 0.839 0.648 0.640        0.664   10.64
37)  propionitrile
      0.120 0.112 0.126 0.134 0.130 0.134 0.115 0.126 0.125        0.125    6.28
38)  bromochloromethane
      0.302 0.292 0.330 0.354 0.335 0.346 0.397 0.345 0.340        0.338    9.01
39)  tetrahydrofuran
             0.090 0.110 0.116 0.107 0.113       0.106 0.115        0.108    8.14
40)  chloroform
      1.044 0.927 1.012 1.082 1.046 1.065 1.057 1.006 1.031        1.030    4.42
41)  t-butyl formate
             0.333 0.449 0.505 0.455 0.504       0.540 0.424        0.459   14.85
42)  dibromofluoromethane (s)
      0.524 0.520 0.518 0.529 0.525 0.523 0.525 0.531 0.521 0.533  0.525    0.92
43)  methacrylonitrile
      0.234 0.233 0.262 0.284 0.281 0.280       0.268 0.263        0.263    7.59
44)  1,1,1-trichloroethane
      0.979 0.954 1.063 1.153 1.093 1.123 1.163 1.096 1.113        1.082    6.69
45)  cyclohexane
      0.778 0.792 0.950 1.072 0.960 0.968 0.973 0.959 0.993 0.885  0.933    9.69
46)  1,1-dichloropropene
      0.646 0.613 0.661 0.714 0.694 0.731 0.627 0.703 0.675 0.588  0.665    7.01
47)  carbon tetrachloride
      0.754 0.781 0.942 1.031 0.985 1.013 0.806 0.953 0.967 0.834  0.907   11.30
48)  isobutyl alcohol
                0.024 0.029 0.030 0.026       0.029 0.031        0.028    8.47

49) I   1,4-difluorobenzene   ----------------ISTD---------------------
50)  1,2-dichloroethane-d4 (s)
      0.417 0.417 0.413 0.411 0.420 0.408 0.420 0.415 0.416 0.425  0.416    1.24
51)  n-butyl alcohol
      0.024 0.022 0.025 0.027 0.028 0.025 0.027 0.027 0.028        0.026    7.97
52)  tert-amyl alcohol
      0.045 0.040 0.035 0.039 0.042 0.035       0.042 0.047        0.040   10.49
53)  iso-octane  *This compound fails Initial Calibration criteria*
```

```
                0.993 1.079 0.963 1.093       0.945 0.971        1.007    6.24
54)  benzene
      1.232 1.227 1.361 1.453 1.380 1.439 1.494 1.419 1.367        1.374    6.74
55)  tert-amyl methyl ether
      0.321 0.295 0.339 0.356 0.331 0.350 0.338 0.342 0.330        0.334    5.36
56)  heptane
      0.197 0.180 0.177 0.207 0.198 0.194       0.204 0.191        0.193    5.38
57)  isopropyl acetate
            0.077 0.104 0.110 0.104 0.109       0.101 0.114        0.103   11.92
58)  1,2-dichloroethane
      0.620 0.490 0.551 0.585 0.554 0.575 0.619 0.590 0.577        0.573    6.91
59)  ethyl acrylate
      0.490 0.501 0.547 0.575 0.561 0.580 0.547 0.568 0.561        0.548    5.78
60)  trichloroethene
      0.313 0.365 0.388 0.406 0.388 0.415 0.324 0.387 0.377 0.352  0.371    9.00
61)  2-nitropropane
            0.199 0.208 0.209 0.197 0.237       0.213 0.205        0.210    6.32
62)  2-chloroethyl vinyl ether
            0.171 0.221 0.228 0.217 0.244       0.204 0.203        0.213   10.97
63)  methyl methacrylate
            0.093 0.107 0.113 0.107 0.115       0.101 0.115        0.107    7.64
64)  1,2-dichloropropane
      0.320 0.313 0.361 0.376 0.362 0.389 0.358 0.355 0.362        0.355    6.85
65)  dibromomethane
      0.241 0.249 0.284 0.303 0.297 0.295 0.255 0.306 0.283        0.279    8.80
66)  methylcyclohexane
      0.670 0.629 0.743 0.816 0.758 0.818 0.743 0.793 0.764 0.684  0.742    8.50
67)  bromodichloromethane
      0.399 0.437 0.523 0.546 0.507 0.552 0.564 0.486 0.509        0.502   10.86
68)  epichlorohydrin
      0.051 0.050 0.057 0.062 0.058 0.059 0.056 0.059 0.060        0.057    6.92
69)  cis-1,3-dichloropropene
      0.510 0.430 0.579 0.610 0.572 0.615 0.561 0.551 0.544        0.553   10.16
70)  4-methyl-2-pentanone
      0.218 0.206 0.253 0.261 0.246 0.281 0.210 0.232 0.247 0.213  0.237   10.60
71)  3-methyl-1-butanol
      0.056 0.042 0.051 0.056 0.055 0.054 0.062 0.053 0.054        0.054   10.12

72) I   chlorobenzene-d5      ----------------ISTD---------------------
73)  toluene-d8 (s)
      1.235 1.236 1.245 1.241 1.253 1.233 1.228 1.212 1.247 1.243  1.237    0.93
74)  toluene
      0.832 0.737 0.877 0.932 0.896 0.954 0.962 0.810 0.849 0.757  0.861    9.09
75)  ethyl methacrylate
      0.510 0.435 0.512 0.539 0.493 0.539 0.526 0.538 0.498        0.510    6.52
76)  trans-1,3-dichloropropene
      0.474 0.446 0.553 0.578 0.542 0.602 0.565 0.504 0.521 0.503  0.529    9.16
77)  1,1,2-trichloroethane
      0.285 0.255 0.295 0.310 0.301 0.310 0.295 0.281 0.298 0.319  0.295    6.17
78)  2-hexanone
      0.223 0.200 0.231 0.247 0.243 0.247 0.217 0.231 0.241        0.231    6.78
79)  tetrachloroethene
      0.307 0.294 0.327 0.348 0.337 0.361 0.326 0.329 0.319        0.328    6.14
80)  1,3-dichloropropane
      0.520 0.515 0.562 0.577 0.564 0.595 0.566 0.556 0.561 0.466  0.548    6.86
81)  butyl acetate
      0.318 0.336 0.315 0.339 0.343 0.320 0.285 0.349 0.346 0.404  0.335    9.17
82)  dibromochloromethane
      0.391 0.335 0.454 0.460 0.424 0.483 0.360 0.388 0.396        0.410   11.89
83)  1,2-dibromoethane
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      0.331 0.357 0.403 0.424 0.405 0.420 0.366 0.387 0.405 0.366  0.386    7.83
 84)  n-butyl ether
      1.534 1.421 1.594 1.713 1.660 1.687 1.672 1.619 1.651 1.788  1.634    6.20
 85)  chlorobenzene
      0.953 0.928 1.053 1.100 1.065 1.126 1.027 1.050 1.061 0.923  1.029    6.88
 86)  1,1,1,2-tetrachloroethane
      0.411 0.400 0.506 0.519 0.479 0.557 0.463 0.451 0.473        0.473   10.58
 87)  ethylbenzene
      1.637 1.543 1.854 1.926 1.860 2.072 1.780 1.763 1.805 1.800  1.804    8.07
 88)  m,p-xylene
      0.592 0.587 0.688 0.734 0.698 0.774 0.690 0.658 0.666 0.591  0.668    9.44
 89)  o-xylene
      0.734 0.655 0.780 0.808 0.775 0.872 0.648 0.727 0.745 0.710  0.745    9.08
 90)  styrene
      1.064 1.011 1.235 1.281 1.244 1.404       1.132 1.172        1.193   10.52
 91)  butyl acrylate
      0.916 0.916 0.906 0.990 0.998 0.929 1.152 0.959 0.978 1.106  0.985    8.44
 92)  bromoform
      0.306 0.292 0.419 0.426 0.381 0.449 0.391 0.349 0.353        0.374   14.37
 93)  isopropylbenzene
      1.700 1.723 2.072 2.203 2.075 2.280 1.812 1.930 2.007 1.818  1.962   10.14
 94)  cis-1,4-dichloro-2-butene
            0.163 0.207 0.213 0.208 0.213       0.189 0.185        0.197    9.41

 95) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 96)  4-bromofluorobenzene (s)
      0.792 0.789 0.790 0.782 0.786 0.766 0.786 0.775 0.779 0.770  0.781    1.12
 97)  bromobenzene
      0.738 0.743 0.826 0.878 0.817 0.899 0.792 0.788 0.799 0.807  0.809    6.34
 98)  1,1,2,2-tetrachloroethane
      0.839 0.860 0.983 1.083 1.032 1.019 0.869 1.032 1.004        0.969    9.22
 99)  trans-1,4-dichloro-2-butene
                0.164 0.175 0.160 0.174       0.156 0.147        0.163    6.72
100)  1,2,3-trichloropropane
      0.258 0.265 0.278 0.304 0.279 0.289 0.345 0.281 0.301        0.289    8.95
101)  n-propylbenzene
      2.821 2.947 3.446 3.702 3.534 3.778 3.429 3.340 3.377 3.532  3.391    8.88
102)  2-chlorotoluene
      0.557 0.619 0.755 0.788 0.735 0.823 0.680 0.692 0.705        0.706   11.66
103)  4-chlorotoluene
      2.149 1.849 2.101 2.233 2.149 2.264 2.074 1.965 2.078 1.716  2.058    8.28
104)  1,3,5-trimethylbenzene
            2.123 2.743 2.820 2.620 3.057       2.433 2.506        2.615   11.49
105)  tert-butylbenzene
            1.612 2.219 2.311 2.097 2.504       1.824 1.940        2.073   14.70
106)  1,2,4-trimethylbenzene
      2.204 2.196 2.738 2.843 2.704 2.982 2.493 2.527 2.621 2.355  2.566   10.24
107)  sec-butylbenzene
            2.593 3.435 3.594 3.309 3.811       3.026 3.136        3.272   12.23
108)  1,3-dichlorobenzene
      1.346 1.336 1.544 1.662 1.587 1.646 1.495 1.493 1.503 1.461  1.507    7.30
109)  p-isopropyltoluene
            2.280 2.946 3.120 2.913 3.293       2.573 2.741        2.838   12.00
110)  1,2,3-trimethylbenzene
            2.495 3.122 3.174 2.927 3.478       2.760 2.785        2.963   10.93
111)  1,4-dichlorobenzene
      1.542 1.389 1.665 1.715 1.617 1.836 1.541 1.609 1.553        1.607    7.82
112)  1,2-dichlorobenzene
      1.537 1.426 1.655 1.761 1.673 1.740 1.725 1.650 1.615 1.532  1.631    6.50
113)  n-butylbenzene
```

```
       1.225 1.220 1.423 1.537 1.452 1.550 1.391 1.341 1.383 1.639  1.416    9.58
114)  1,2-dibromo-3-chloropropane
             0.267 0.322 0.340 0.320 0.333       0.311 0.332        0.318    7.66
115)  1,3,5-trichlorobenzene
       1.182 1.179 1.495 1.561 1.476 1.589 1.362 1.410 1.447        1.411   10.48
116)  1,2,4-trichlorobenzene
       1.126 1.176 1.435 1.481 1.359 1.500 1.390 1.266 1.317        1.339    9.75
117)  hexachlorobutadiene
       0.551 0.580 0.670 0.713 0.663 0.718 0.631 0.643 0.648 0.686  0.650    8.21
118)  naphthalene
             3.138 3.981 4.156 3.808 4.178       3.457 3.706        3.775   10.05
119)  1,2,3-trichlorobenzene
       1.041 1.047 1.295 1.347 1.208 1.336 1.206 1.150 1.184        1.202    9.33
120)  hexachloroethane
             0.306 0.540 0.527 0.435 0.618       0.347 0.402        0.453   24.80
             ----- Linear regression -----  Coefficient =  0.9930
               Response Ratio = -0.01911 + 0.58455 *A

121)  2-methylnaphthalene
                   1.656 1.679 1.432 1.724       1.393 1.399        1.547   10.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2C8274.M         Mon Sep 27 17:43:43 2021   RPT1
```

Initial Calibration Verification

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8274-ICV8274
Lab FileID: 2C185735.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2C8274\2C185735.D Vial: 14
Acq On : 24 Sep 2021 10:30 pm Operator: thienn
Sample : icv8274-50 Inst : GCMS2C
Misc : MS53581,V2C8274,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Sep 27 09:47:42 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	102	0.00	8.49
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.168	1.230	-5.3	102	0.00	8.62
4		1,4-dioxane	0.090	0.093	-3.3	102	0.00	12.47
5	I	pentafluorobenzene	1.000	1.000	0.0	99	0.00	10.91
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane	1.047	0.914	12.7	79	0.00	4.54
8		chloromethane	1.008	0.980	2.8	94	0.00	5.00
9		vinyl chloride	0.993	1.121	-12.9	100	0.00	5.27
10		1,3-butadiene	0.831	0.873	-5.1	104	0.00	5.32
11		bromomethane	0.932	0.990	-6.2	106	0.00	6.01
12		chloroethane	0.631	0.657	-4.1	97	0.00	6.20
13		trichlorofluoromethane	1.239	1.354	-9.3	101	0.00	6.74
14		ethyl ether	0.300	0.315	-5.0	99	0.00	7.18
15		acrolein	0.149	0.172	-15.4	108	0.01	7.47
16		freon 113	0.548	0.566	-3.3	96	0.00	7.69
17		1,1-dichloroethene	0.601	0.578	3.8	97	0.00	7.67
18		acetone	0.099	0.093	6.1	85	-0.01	7.70
19		iodomethane	1.086	1.174	-8.1	101	0.00	7.97
20		acetonitrile		----------NA----------				
21		carbon disulfide	1.914	1.943	-1.5	95	0.00	8.11
22		methylene chloride	0.683	0.667	2.3	96	0.00	8.49
23		methyl acetate	0.610	0.559	8.4	89	0.00	8.21
24		methyl tert butyl ether	1.959	2.121	-8.3	100	0.00	8.88
25		trans-1,2-dichloroethene	0.607	0.594	2.1	95	0.00	8.91
26		hexane	0.345	0.380	-10.1	107	0.00	9.30
27		di-isopropyl ether	1.746	1.712	1.9	90	0.00	9.55
28		1,1-dichloroethane	0.943	0.999	-5.9	96	0.00	9.56
29		chloroprene	0.755	0.803	-6.4	99	0.00	9.66
30		acrylonitrile		----------NA----------				
31		vinyl acetate	0.093	0.111	-19.4	110	0.00	9.50
32		ethyl tert-butyl ether	1.737	2.020	-16.3	105	0.00	10.05
33		2-butanone	0.089	0.101	-13.5	101	0.01	10.28
34		ethyl acetate	0.095	0.104	-9.5	98	0.00	10.28
35		2,2-dichloropropane	0.910	0.915	-0.5	94	0.00	10.37
36		cis-1,2-dichloroethene	0.664	0.662	0.3	98	0.00	10.34
37		propionitrile	0.125	0.141	-12.8	104	0.00	10.37
38		bromochloromethane	0.338	0.360	-6.5	101	0.00	10.66
39		tetrahydrofuran	0.108	0.120	-11.1	103	-0.01	10.66
40		chloroform	1.030	1.075	-4.4	99	0.00	10.74
41		t-butyl formate	0.459	0.474	-3.3	93	0.00	10.79

Initial Calibration Verification

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8274-ICV8274
Lab FileID: 2C185735.D

42	S	dibromofluoromethane (s)	0.525	0.525	0.0	98	0.00	10.94
43		methacrylonitrile	0.263	0.287	-9.1	100	0.00	10.57
44		1,1,1-trichloroethane	1.082	1.149	-6.2	99	0.00	11.01
45		cyclohexane	0.933	1.184	-26.9	110	0.00	11.11
46		1,1-dichloropropene	0.665	0.738	-11.0	103	0.00	11.18
47		carbon tetrachloride	0.907	1.020	-12.5	98	0.00	11.21
48		isobutyl alcohol	0.028	0.032	-14.3	109	-0.01	11.17
49	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	11.84
50	S	1,2-dichloroethane-d4 (s)	0.416	0.408	1.9	100	0.00	11.37
51		n-butyl alcohol	0.026	0.028	-7.7	101	0.00	11.91
52		tert-amyl alcohol	0.040	0.043	-7.5	110	-0.01	11.33
53		iso-octane	1.007	1.379	-36.9#	128	0.00	11.52
54		benzene	1.374	1.447	-5.3	100	0.00	11.43
55		tert-amyl methyl ether	0.334	0.346	-3.6	98	0.00	11.51
56		heptane	0.193	0.207	-7.3	101	0.00	11.67
57		isopropyl acetate	0.103	0.106	-2.9	97	0.00	11.35
58		1,2-dichloroethane	0.573	0.593	-3.5	102	0.00	11.46
59		ethyl acrylate	0.548	0.595	-8.6	104	0.00	12.13
60		trichloroethene	0.371	0.410	-10.5	101	0.00	12.14
61		2-nitropropane	0.210	0.231	-10.0	111	0.00	12.88
62		2-chloroethyl vinyl ether	0.213	0.274	-28.6	121	0.00	12.89
63		methyl methacrylate	0.107	0.126	-17.8	112	0.00	12.39
64		1,2-dichloropropane	0.355	0.380	-7.0	102	0.00	12.42
65		dibromomethane	0.279	0.308	-10.4	102	0.00	12.53
66		methylcyclohexane	0.742	0.813	-9.6	100	0.00	12.42
67		bromodichloromethane	0.502	0.550	-9.6	101	0.00	12.67
68		epichlorohydrin	0.057	0.072	-26.3	116	0.00	12.98
69		cis-1,3-dichloropropene	0.553	0.601	-8.7	99	0.00	13.10
70		4-methyl-2-pentanone	0.237	0.268	-13.1	103	0.00	13.20
71		3-methyl-1-butanol	0.054	0.056	-3.7	102	0.00	13.20
72	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	14.80
73	S	toluene-d8 (s)	1.237	1.248	-0.9	101	0.00	13.39
74		toluene	0.861	0.953	-10.7	103	0.00	13.46
75		ethyl methacrylate	0.510	0.555	-8.8	103	0.00	13.62
76		trans-1,3-dichloropropene	0.529	0.605	-14.4	105	0.00	13.63
77		1,1,2-trichloroethane	0.295	0.316	-7.1	102	0.00	13.84
78		2-hexanone	0.231	0.247	-6.9	100	0.00	13.99
79		tetrachloroethene		----------NA----------				
80		1,3-dichloropropane	0.548	0.602	-9.9	105	0.00	14.01
81		butyl acetate	0.335	0.337	-0.6	100	0.00	14.06
82		dibromochloromethane	0.410	0.496	-21.0	108	0.00	14.24
83		1,2-dibromoethane	0.386	0.438	-13.5	104	0.00	14.38
84		n-butyl ether	1.634	1.679	-2.8	98	0.00	14.77
85		chlorobenzene	1.029	1.140	-10.8	104	0.00	14.83
86		1,1,1,2-tetrachloroethane	0.473	0.532	-12.5	103	0.00	14.89
87		ethylbenzene	1.804	1.987	-10.1	104	0.00	14.88
88		m,p-xylene	0.668	0.751	-12.4	103	0.00	14.99
89		o-xylene	0.745	0.816	-9.5	101	0.00	15.37
90		styrene	1.193	1.280	-7.3	100	0.00	15.38
91		butyl acrylate	0.985	1.006	-2.1	102	0.00	15.20
92		bromoform	0.374	0.435	-16.3	103	0.00	15.60
93		isopropylbenzene	1.962	2.211	-12.7	101	0.00	15.69
94		cis-1,4-dichloro-2-butene	0.197	0.221	-12.2	104	0.00	15.73
95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	16.97
96	S	4-bromofluorobenzene (s)	0.781	0.793	-1.5	102	0.00	15.88
97		bromobenzene	0.809	0.890	-10.0	102	0.00	16.06
98		1,1,2,2-tetrachloroethane	0.969	1.117	-15.3	104	0.00	15.95

Initial Calibration Verification

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8274-ICV8274
Lab FileID: 2C185735.D

99	trans-1,4-dichloro-2-bute	0.163	0.177	-8.6	102	0.00	15.98
100	1,2,3-trichloropropane	0.289	0.300	-3.8	99	0.00	16.03
101	n-propylbenzene	3.391	3.737	-10.2	102	0.00	16.08
102	2-chlorotoluene	0.706	0.794	-12.5	102	0.00	16.20
103	4-chlorotoluene	2.058	2.246	-9.1	101	0.00	16.31
104	1,3,5-trimethylbenzene	2.615	2.874	-9.9	103	0.00	16.22
105	tert-butylbenzene	2.073	2.338	-12.8	102	0.00	16.53
106	1,2,4-trimethylbenzene	2.566	2.926	-14.0	104	0.00	16.58
107	sec-butylbenzene	3.272	3.649	-11.5	102	0.00	16.74
108	1,3-dichlorobenzene	1.507	1.670	-10.8	101	0.00	16.91
109	p-isopropyltoluene	2.838	3.120	-9.9	101	0.00	16.86
110	1,2,3-trimethylbenzene		----------NA----------				
111	1,4-dichlorobenzene	1.607	1.679	-4.5	99	0.00	17.00
112	1,2-dichlorobenzene	1.631	1.767	-8.3	101	0.00	17.36
113	n-butylbenzene	1.416	1.525	-7.7	100	0.00	17.26
114	1,2-dibromo-3-chloropropa	0.318	0.341	-7.2	101	0.00	18.12
115	1,3,5-trichlorobenzene	1.411	1.599	-13.3	103	0.00	18.31
116	1,2,4-trichlorobenzene	1.339	1.494	-11.6	102	0.00	18.97
117	hexachlorobutadiene	0.650	0.709	-9.1	100	0.00	19.08
118	naphthalene	3.775	4.214	-11.6	102	0.00	19.28
119	1,2,3-trichlorobenzene	1.202	1.369	-13.9	102	0.00	19.50
	----------	True	Calc.	% Drift	----------		
120	hexachloroethane	50.000	48.682	2.6	105	0.00	17.64
	----------	AvgRF	CCRF	% Dev	----------		
121	2-methylnaphthalene	1.547	1.774	-14.7	106	0.00	20.44

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

2C185730.D M2C8274.M Mon Sep 27 17:43:19 2021 RPT1

Initial Calibration Verification

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Sample: V2C8274-ICV8274
Lab FileID: 2C185736.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2C8274\2C185736.D Vial: 15
Acq On : 24 Sep 2021 10:59 pm Operator: thienn
Sample : icv8274-50 Inst : GCMS2C
Misc : MS53581,V2C8274,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Sep 27 09:47:42 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	104	0.00	8.49
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	97	0.00	10.91
6		chlorodifluoromethane	0.834	1.021	-22.4	115	0.00	4.58
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		ethyl ether		----------NA----------				
15		acrolein		----------NA----------				
16		freon 113		----------NA----------				
17		1,1-dichloroethene		----------NA----------				
18		acetone		----------NA----------				
19		iodomethane		----------NA----------				
20		acetonitrile	0.108	0.117	-8.3	105	0.00	8.22
21		carbon disulfide		----------NA----------				
22		methylene chloride		----------NA----------				
23		methyl acetate		----------NA----------				
24		methyl tert butyl ether		----------NA----------				
25		trans-1,2-dichloroethene		----------NA----------				
26		hexane		----------NA----------				
27		di-isopropyl ether		----------NA----------				
28		1,1-dichloroethane		----------NA----------				
29		chloroprene		----------NA----------				
30		acrylonitrile	0.304	0.365	-20.1	111	0.00	8.84
31		vinyl acetate		----------NA----------				
32		ethyl tert-butyl ether		----------NA----------				
33		2-butanone		----------NA----------				
34		ethyl acetate		----------NA----------				
35		2,2-dichloropropane		----------NA----------				
36		cis-1,2-dichloroethene		----------NA----------				
37		propionitrile		----------NA----------				
38		bromochloromethane		----------NA----------				
39		tetrahydrofuran		----------NA----------				
40		chloroform		----------NA----------				
41		t-butyl formate		----------NA----------				

Initial Calibration Verification

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8274-ICV8274
Lab FileID: 2C185736.D

42	S	dibromofluoromethane (s)	0.525	0.520	1.0	95	0.00	10.94
43		methacrylonitrile		----------NA----------				
44		1,1,1-trichloroethane		----------NA----------				
45		cyclohexane		----------NA----------				
46		1,1-dichloropropene		----------NA----------				
47		carbon tetrachloride		----------NA----------				
48		isobutyl alcohol		----------NA----------				
49	I	1,4-difluorobenzene	1.000	1.000	0.0	95	0.00	11.84
50	S	1,2-dichloroethane-d4 (s)	0.416	0.407	2.2	94	0.00	11.37
51		n-butyl alcohol		----------NA----------				
52		tert-amyl alcohol		----------NA----------				
53		iso-octane		----------NA----------				
54		benzene		----------NA----------				
55		tert-amyl methyl ether		----------NA----------				
56		heptane		----------NA----------				
57		isopropyl acetate		----------NA----------				
58		1,2-dichloroethane		----------NA----------				
59		ethyl acrylate		----------NA----------				
60		trichloroethene		----------NA----------				
61		2-nitropropane		----------NA----------				
62		2-chloroethyl vinyl ether		----------NA----------				
63		methyl methacrylate		----------NA----------				
64		1,2-dichloropropane		----------NA----------				
65		dibromomethane		----------NA----------				
66		methylcyclohexane		----------NA----------				
67		bromodichloromethane		----------NA----------				
68		epichlorohydrin		----------NA----------				
69		cis-1,3-dichloropropene		----------NA----------				
70		4-methyl-2-pentanone		----------NA----------				
71		3-methyl-1-butanol		----------NA----------				
72	I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	14.80
73	S	toluene-d8 (s)	1.237	1.228	0.7	93	0.00	13.39
74		toluene		----------NA----------				
75		ethyl methacrylate		----------NA----------				
76		trans-1,3-dichloropropene		----------NA----------				
77		1,1,2-trichloroethane		----------NA----------				
78		2-hexanone		----------NA----------				
79		tetrachloroethene	0.328	0.339	-3.4	91	0.00	13.97
80		1,3-dichloropropane		----------NA----------				
81		butyl acetate		----------NA----------				
82		dibromochloromethane		----------NA----------				
83		1,2-dibromoethane		----------NA----------				
84		n-butyl ether		----------NA----------				
85		chlorobenzene		----------NA----------				
86		1,1,1,2-tetrachloroethane		----------NA----------				
87		ethylbenzene		----------NA----------				
88		m,p-xylene		----------NA----------				
89		o-xylene		----------NA----------				
90		styrene		----------NA----------				
91		butyl acrylate		----------NA----------				
92		bromoform		----------NA----------				
93		isopropylbenzene		----------NA----------				
94		cis-1,4-dichloro-2-butene		----------NA----------				
95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	16.97
96	S	4-bromofluorobenzene (s)	0.781	0.778	0.4	99	0.00	15.88
97		bromobenzene		----------NA----------				
98		1,1,2,2-tetrachloroethane		----------NA----------				

Initial Calibration Verification

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8274-ICV8274
Lab FileID: 2C185736.D

99	trans-1,4-dichloro-2-bute		----------NA----------				
100	1,2,3-trichloropropane		----------NA----------				
101	n-propylbenzene		----------NA----------				
102	2-chlorotoluene		----------NA----------				
103	4-chlorotoluene		----------NA----------				
104	1,3,5-trimethylbenzene		----------NA----------				
105	tert-butylbenzene		----------NA----------				
106	1,2,4-trimethylbenzene		----------NA----------				
107	sec-butylbenzene		----------NA----------				
108	1,3-dichlorobenzene		----------NA----------				
109	p-isopropyltoluene		----------NA----------				
110	1,2,3-trimethylbenzene	2.963	3.595	-21.3	112	0.00	16.99
111	1,4-dichlorobenzene		----------NA----------				
112	1,2-dichlorobenzene		----------NA----------				
113	n-butylbenzene		----------NA----------				
114	1,2-dibromo-3-chloropropa		----------NA----------				
115	1,3,5-trichlorobenzene		----------NA----------				
116	1,2,4-trichlorobenzene		----------NA----------				
117	hexachlorobutadiene		----------NA----------				
118	naphthalene		----------NA----------				
119	1,2,3-trichlorobenzene		----------NA----------				

	----------	True	Calc.	% Drift	----------		
120	hexachloroethane		----------NA----------				
	----------	AvgRF	CCRF	% Dev	----------		
121	2-methylnaphthalene		----------NA----------				

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

2C185730.D M2C8274.M Mon Sep 27 17:43:21 2021 RPT1

Continuing Calibration Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8352-CC8274
Lab FileID: 2C187620.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...21\v2c8352\2c187620.d Vial: 4
Acq On : 17 Nov 2021 9:18 am Operator: thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54952,V2C8352,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Sep 27 09:47:42 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	89	-0.04	8.45
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.168	1.071	8.3	78	-0.03	8.60
4		1,4-dioxane	0.090	0.143	-58.9#	138	-0.01	12.45
5	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	10.90
6		chlorodifluoromethane	0.834	0.501	39.9#	62	0.00	4.58
7		dichlorodifluoromethane	1.047	0.913	12.8	84	0.00	4.55
8		chloromethane	1.008	0.882	12.5	91	0.00	5.01
9		vinyl chloride	0.993	0.971	2.2	93	0.00	5.28
10		1,3-butadiene	0.831	0.809	2.6	103	0.02	5.33
11		bromomethane	0.932	1.390	-49.1#	159	0.02	6.02
12		chloroethane	0.631	0.952	-50.9#	150	0.00	6.20
13		trichlorofluoromethane	1.239	1.244	-0.4	99	0.00	6.74
14		ethyl ether	0.300	0.276	8.0	92	0.00	7.18
15		acrolein	0.149	0.148	0.7	99	-0.01	7.45
16		freon 113	0.548	0.494	9.9	90	0.00	7.68
17		1,1-dichloroethene	0.601	0.499	17.0	90	0.00	7.66
18		acetone	0.099	0.090	9.1	88	-0.02	7.69
19		iodomethane	1.086	1.043	4.0	96	0.00	7.96
20		acetonitrile	0.108	0.077	28.7#	75	-0.02	8.20
21		carbon disulfide	1.914	1.692	11.6	88	0.00	8.10
22		methylene chloride	0.683	0.617	9.7	94	-0.01	8.48
23		methyl acetate	0.610	0.437	28.4#	74	0.00	8.21
24		methyl tert butyl ether	1.959	1.775	9.4	89	-0.01	8.88
25		trans-1,2-dichloroethene	0.607	0.542	10.7	93	0.00	8.91
26		hexane	0.345	0.271	21.4#	81	0.00	9.30
27		di-isopropyl ether	1.746	1.419	18.7	80	-0.01	9.54
28		1,1-dichloroethane	0.943	0.836	11.3	86	0.00	9.55
29		chloroprene	0.755	0.599	20.7#	79	0.00	9.66
30		acrylonitrile	0.304	0.305	-0.3	102	0.00	8.83
31		vinyl acetate	0.093	0.107	-15.1	113	-0.01	9.49
32		ethyl tert-butyl ether	1.737	1.593	8.3	89	-0.01	10.04
33		2-butanone	0.089	0.091	-2.2	97	0.00	10.27
34		ethyl acetate	0.095	0.076	20.0#	76	-0.01	10.27
35		2,2-dichloropropane	0.910	0.938	-3.1	103	-0.01	10.37
36		cis-1,2-dichloroethene	0.664	0.584	12.0	92	-0.01	10.33
37		propionitrile	0.125	0.109	12.8	86	-0.01	10.36
38		bromochloromethane	0.338	0.326	3.6	98	0.00	10.65
39		tetrahydrofuran	0.108	0.100	7.4	91	-0.01	10.66
40		chloroform	1.030	1.000	2.9	98	0.00	10.74
41		t-butyl formate	0.459	0.416	9.4	87	-0.01	10.78

Continuing Calibration Summary

Job Number: JD35270 **Sample:** V2C8352-CC8274
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 2C187620.D
Project: EPT, Ithaca, NY

42	S	dibromofluoromethane (s)	0.525	0.549	-4.6	110	0.00	10.94
43		methacrylonitrile	0.263	0.243	7.6	91	-0.01	10.56
44		1,1,1-trichloroethane	1.082	1.002	7.4	92	-0.01	11.00
45		cyclohexane	0.933	0.992	-6.3	98	0.00	11.11
46		1,1-dichloropropene	0.665	0.707	-6.3	105	0.00	11.17
47		carbon tetrachloride	0.907	0.972	-7.2	100	0.00	11.20
48		isobutyl alcohol	0.028	0.019	32.1#	70	-0.02	11.16
49	I	1,4-difluorobenzene	1.000	1.000	0.0	123	0.00	11.84
50	S	1,2-dichloroethane-d4 (s)	0.416	0.380	8.7	114	-0.01	11.36
51		n-butyl alcohol	0.026	0.025	3.8	110	0.00	11.90
52		tert-amyl alcohol	0.040	0.031	22.5#	97	-0.02	11.33
53		iso-octane	1.007	1.346	-33.7#	153	-0.01	11.51
54		benzene	1.374	1.311	4.6	111	0.00	11.42
55		tert-amyl methyl ether	0.334	0.346	-3.6	119	-0.01	11.51
56		heptane	0.193	0.195	-1.0	116	0.00	11.67
57		isopropyl acetate	0.103	0.101	1.9	113	-0.01	11.34
58		1,2-dichloroethane	0.573	0.489	14.7	103	-0.01	11.45
59		ethyl acrylate	0.548	0.532	2.9	114	0.00	12.12
60		trichloroethene	0.371	0.398	-7.3	120	0.00	12.13
61		2-nitropropane	0.210	0.207	1.4	121	0.00	12.87
62		2-chloroethyl vinyl ether	0.213	0.242	-13.6	131	-0.01	12.88
63		methyl methacrylate	0.107	0.122	-14.0	132	0.00	12.38
64		1,2-dichloropropane	0.355	0.386	-8.7	126	-0.01	12.41
65		dibromomethane	0.279	0.307	-10.0	124	0.00	12.52
66		methylcyclohexane	0.742	0.802	-8.1	121	0.00	12.41
67		bromodichloromethane	0.502	0.598	-19.1	134	0.00	12.66
68		epichlorohydrin	0.057	0.063	-10.5	125	-0.01	12.97
69		cis-1,3-dichloropropene	0.553	0.677	-22.4#	136	0.00	13.09
70		4-methyl-2-pentanone	0.237	0.298	-25.7#	140	-0.01	13.19
71		3-methyl-1-butanol	0.054	0.058	-7.4	128	0.00	13.20
72	I	chlorobenzene-d5	1.000	1.000	0.0	197	0.00	14.79
73	S	toluene-d8 (s)	1.237	1.052	15.0	167	0.00	13.38
74		toluene	0.861	0.726	15.7	153	0.00	13.45
75		ethyl methacrylate	0.510	0.418	18.0	153	0.00	13.61
76		trans-1,3-dichloropropene	0.529	0.452	14.6	154	0.00	13.63
77		1,1,2-trichloroethane	0.295	0.238	19.3	151	0.00	13.84
78		2-hexanone	0.231	0.195	15.6	156	-0.01	13.99
79		tetrachloroethene	0.328	0.284	13.4	161	0.00	13.97
80		1,3-dichloropropane	0.548	0.490	10.6	167	0.00	14.01
81		butyl acetate	0.335	0.258	23.0#	150	0.00	14.05
82		dibromochloromethane	0.410	0.382	6.8	164	0.00	14.24
83		1,2-dibromoethane	0.386	0.346	10.4	161	0.00	14.38
84		n-butyl ether	1.634	1.281	21.6#	147	0.00	14.77
85		chlorobenzene	1.029	0.992	3.6	178	0.00	14.82
86		1,1,1,2-tetrachloroethane	0.473	0.455	3.8	173	-0.01	14.88
87		ethylbenzene	1.804	1.673	7.3	171	0.00	14.88
88		m,p-xylene	0.668	0.651	2.5	175	0.00	14.99
89		o-xylene	0.745	0.736	1.2	179	0.00	15.36
90		styrene	1.193	1.163	2.5	179	0.00	15.37
91		butyl acrylate	0.985	0.733	25.6#	146	0.00	15.20
92		bromoform	0.374	0.381	-1.9	176	0.00	15.59
93		isopropylbenzene	1.962	1.921	2.1	172	0.00	15.68
94		cis-1,4-dichloro-2-butene	0.197	0.115	41.6#	106	-0.01	15.72
95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	172	0.00	16.97
96	S	4-bromofluorobenzene (s)	0.781	0.828	-6.0	182	0.00	15.88
97		bromobenzene	0.809	0.903	-11.6	177	0.00	16.05
98		1,1,2,2-tetrachloroethane	0.969	1.111	-14.7	177	0.00	15.95

Continuing Calibration Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8352-CC8274
Lab FileID: 2C187620.D

99	trans-1,4-dichloro-2-bute	0.163	0.110	32.5#	108	0.00	15.98
100	1,2,3-trichloropropane	0.289	0.297	-2.8	168	0.00	16.03
101	n-propylbenzene	3.391	3.735	-10.1	174	0.00	16.07
102	2-chlorotoluene	0.706	0.817	-15.7	179	0.00	16.20
103	4-chlorotoluene	2.058	2.177	-5.8	168	0.00	16.30
104	1,3,5-trimethylbenzene	2.615	2.840	-8.6	173	0.00	16.21
105	tert-butylbenzene	2.073	2.367	-14.2	176	-0.01	16.53
106	1,2,4-trimethylbenzene	2.566	2.912	-13.5	176	0.00	16.58
107	sec-butylbenzene	3.272	3.771	-15.3	181	0.00	16.74
108	1,3-dichlorobenzene	1.507	1.758	-16.7	182	0.00	16.90
109	p-isopropyltoluene	2.838	3.263	-15.0	180	0.00	16.86
110	1,2,3-trimethylbenzene	2.963	3.272	-10.4	177	0.00	16.98
111	1,4-dichlorobenzene	1.607	1.900	-18.2	191	0.00	16.99
112	1,2-dichlorobenzene	1.631	1.829	-12.1	179	0.00	17.36
113	n-butylbenzene	1.416	1.582	-11.7	177	0.00	17.25
114	1,2-dibromo-3-chloropropa	0.318	0.279	12.3	141	0.00	18.12
115	1,3,5-trichlorobenzene	1.411	1.616	-14.5	178	0.00	18.30
116	1,2,4-trichlorobenzene	1.339	1.450	-8.3	169	-0.01	18.96
117	hexachlorobutadiene	0.650	0.680	-4.6	164	0.00	19.08
118	naphthalene	3.775	3.522	6.7	146	-0.01	19.27
119	1,2,3-trichlorobenzene	1.202	1.271	-5.7	162	0.00	19.49
		True	Calc.	% Drift			
120	hexachloroethane	50.000	46.323	7.4	171	0.00	17.64
		AvgRF	CCRF	% Dev			
121	2-methylnaphthalene	1.547	1.048	32.3#	107	0.00	20.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C185730.D M2C8274.M Thu Nov 18 02:12:24 2021

Continuing Calibration Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY
Sample: V2C8354-CC8274
Lab FileID: 2C187669.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ke...54-partial\2c187669.d Vial: 2
Acq On : 18 Nov 2021 10:30 am Operator: thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Sep 27 09:47:42 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	91	-0.05	8.44
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.168	0.995	14.8	74	-0.05	8.57
4		1,4-dioxane	0.090	0.139	-54.4#	137	-0.01	12.45
5	I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	10.91
6		chlorodifluoromethane	0.834	0.660	20.9#	82	0.01	4.59
7		dichlorodifluoromethane	1.047	0.876	16.3	81	0.02	4.57
8		chloromethane	1.008	1.185	-17.6	123	0.01	5.01
9		vinyl chloride	0.993	1.117	-12.5	107	0.01	5.29
10		1,3-butadiene	0.831	1.060	-27.6#	136	0.02	5.33
11		bromomethane	0.932	1.448	-55.4#	168	0.02	6.02
12		chloroethane	0.631	0.990	-56.9#	157	0.01	6.21
13		trichlorofluoromethane	1.239	1.270	-2.5	102	0.00	6.74
14		ethyl ether	0.300	0.290	3.3	98	0.00	7.18
15		acrolein	0.149	0.132	11.4	89	0.00	7.46
16		freon 113	0.548	0.559	-2.0	103	0.00	7.69
17		1,1-dichloroethene	0.601	0.549	8.7	100	0.00	7.66
18		acetone	0.099	0.067	32.3#	66	0.00	7.71
19		iodomethane	1.086	1.104	-1.7	102	0.00	7.96
20		acetonitrile	0.108	0.077	28.7#	76	-0.03	8.19
21		carbon disulfide	1.914	1.860	2.8	98	0.00	8.11
22		methylene chloride	0.683	0.634	7.2	98	0.00	8.49
23		methyl acetate	0.610	0.434	28.9#	74	0.00	8.22
24		methyl tert butyl ether	1.959	1.756	10.4	89	0.00	8.88
25		trans-1,2-dichloroethene	0.607	0.590	2.8	102	0.00	8.92
26		hexane	0.345	0.342	0.9	104	0.00	9.30
27		di-isopropyl ether	1.746	1.480	15.2	84	0.00	9.55
28		1,1-dichloroethane	0.943	0.878	6.9	91	0.00	9.56
29		chloroprene	0.755	0.616	18.4	82	0.00	9.66
30		acrylonitrile	0.304	0.276	9.2	93	0.00	8.84
31		vinyl acetate	0.093	0.105	-12.9	113	0.00	9.50
32		ethyl tert-butyl ether	1.737	1.619	6.8	91	0.00	10.05
33		2-butanone	0.089	0.081	9.0	87	0.00	10.27
34		ethyl acetate	0.095	0.085	10.5	87	0.00	10.28
35		2,2-dichloropropane	0.910	0.943	-3.6	105	-0.01	10.37
36		cis-1,2-dichloroethene	0.664	0.609	8.3	97	0.00	10.34
37		propionitrile	0.125	0.109	12.8	87	0.00	10.37
38		bromochloromethane	0.338	0.327	3.3	99	0.00	10.65
39		tetrahydrofuran	0.108	0.098	9.3	91	0.00	10.67
40		chloroform	1.030	0.973	5.5	96	0.00	10.75
41		t-butyl formate	0.459	0.423	7.8	90	0.00	10.78

Continuing Calibration Summary

Job Number: JD35270 **Sample:** V2C8354-CC8274
Account: ESCVAR WSP Environment & Energy **Lab FileID:** 2C187669.D
Project: EPT, Ithaca, NY

42	S	dibromofluoromethane (s)	0.525	0.551	-5.0	111	0.00	10.94
43		methacrylonitrile	0.263	0.230	12.5	87	0.00	10.57
44		1,1,1-trichloroethane	1.082	1.033	4.5	96	0.00	11.01
45		cyclohexane	0.933	0.934	-0.1	93	0.00	11.12
46		1,1-dichloropropene	0.665	0.686	-3.2	103	0.00	11.17
47		carbon tetrachloride	0.907	0.991	-9.3	103	0.00	11.21
48		isobutyl alcohol		----------NA----------				
49	I	1,4-difluorobenzene	1.000	1.000	0.0	119	0.00	11.84
50	S	1,2-dichloroethane-d4 (s)	0.416	0.377	9.4	110	0.00	11.37
51		n-butyl alcohol	0.026	0.023	11.5	101	-0.01	11.90
52		tert-amyl alcohol	0.040	0.032	20.0	98	-0.02	11.33
53		iso-octane	1.007	1.342	-33.3#	148	0.00	11.52
54		benzene	1.374	1.321	3.9	109	0.00	11.43
55		tert-amyl methyl ether	0.334	0.334	0.0	112	0.00	11.51
56		heptane	0.193	0.196	-1.6	113	0.00	11.67
57		isopropyl acetate	0.103	0.096	6.8	104	0.00	11.35
58		1,2-dichloroethane	0.573	0.485	15.4	99	0.00	11.46
59		ethyl acrylate	0.548	0.491	10.4	102	0.00	12.12
60		trichloroethene	0.371	0.400	-7.8	117	0.00	12.13
61		2-nitropropane	0.210	0.195	7.1	111	0.00	12.87
62		2-chloroethyl vinyl ether	0.213	0.240	-12.7	126	0.00	12.89
63		methyl methacrylate	0.107	0.114	-6.5	121	0.00	12.38
64		1,2-dichloropropane	0.355	0.385	-8.5	122	0.00	12.42
65		dibromomethane	0.279	0.308	-10.4	121	0.00	12.52
66		methylcyclohexane	0.742	0.825	-11.2	121	0.00	12.42
67		bromodichloromethane	0.502	0.572	-13.9	125	0.00	12.67
68		epichlorohydrin	0.057	0.062	-8.8	120	0.00	12.98
69		cis-1,3-dichloropropene	0.553	0.665	-20.3#	130	0.00	13.10
70		4-methyl-2-pentanone	0.237	0.281	-18.6	128	0.00	13.20
71		3-methyl-1-butanol	0.054	0.054	0.0	116	0.00	13.20
72	I	chlorobenzene-d5	1.000	1.000	0.0	185	0.00	14.80
73	S	toluene-d8 (s)	1.237	1.069	13.6	160	0.00	13.38
74		toluene	0.861	0.729	15.3	145	0.00	13.46
75		ethyl methacrylate	0.510	0.399	21.8#	137	0.00	13.61
76		trans-1,3-dichloropropene	0.529	0.439	17.0	141	0.00	13.63
77		1,1,2-trichloroethane	0.295	0.239	19.0	143	0.00	13.84
78		2-hexanone	0.231	0.171	26.0#	129	0.00	13.99
79		tetrachloroethene	0.328	0.294	10.4	157	0.00	13.97
80		1,3-dichloropropane	0.548	0.471	14.1	151	0.00	14.01
81		butyl acetate	0.335	0.234	30.1#	128	0.00	14.05
82		dibromochloromethane	0.410	0.382	6.8	154	0.00	14.24
83		1,2-dibromoethane	0.386	0.350	9.3	153	0.00	14.38
84		n-butyl ether	1.634	1.261	22.8#	137	0.00	14.77
85		chlorobenzene	1.029	0.981	4.7	165	0.00	14.83
86		1,1,1,2-tetrachloroethane	0.473	0.456	3.6	163	0.00	14.89
87		ethylbenzene	1.804	1.667	7.6	160	0.00	14.88
88		m,p-xylene	0.668	0.653	2.2	165	0.00	14.99
89		o-xylene	0.745	0.735	1.3	169	0.00	15.36
90		styrene	1.193	1.142	4.3	165	0.00	15.37
91		butyl acrylate	0.985	0.663	32.7#	124	0.00	15.20
92		bromoform	0.374	0.376	-0.5	164	0.00	15.59
93		isopropylbenzene	1.962	1.915	2.4	161	0.00	15.69
94		cis-1,4-dichloro-2-butene	0.197	0.121	38.6#	105	0.00	15.73
95	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	160	0.00	16.97
96	S	4-bromofluorobenzene (s)	0.781	0.816	-4.5	167	0.00	15.88
97		bromobenzene	0.809	0.923	-14.1	168	0.00	16.05
98		1,1,2,2-tetrachloroethane	0.969	1.074	-10.8	159	0.00	15.95

Continuing Calibration Summary

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Sample: V2C8354-CC8274
Lab FileID: 2C187669.D

99	trans-1,4-dichloro-2-bute	0.163	0.114	30.1#	104	0.00	15.98
100	1,2,3-trichloropropane	0.289	0.296	-2.4	155	0.00	16.04
101	n-propylbenzene	3.391	3.774	-11.3	163	0.00	16.07
102	2-chlorotoluene	0.706	0.833	-18.0	169	0.00	16.20
103	4-chlorotoluene	2.058	2.137	-3.8	153	0.00	16.30
104	1,3,5-trimethylbenzene	2.615	2.860	-9.4	162	0.00	16.21
105	tert-butylbenzene	2.073	2.283	-10.1	158	0.00	16.53
106	1,2,4-trimethylbenzene	2.566	2.906	-13.3	164	0.00	16.58
107	sec-butylbenzene	3.272	3.736	-14.2	166	0.00	16.74
108	1,3-dichlorobenzene	1.507	1.775	-17.8	171	0.00	16.91
109	p-isopropyltoluene	2.838	3.269	-15.2	168	0.00	16.86
110	1,2,3-trimethylbenzene	2.963	3.214	-8.5	162	0.00	16.99
111	1,4-dichlorobenzene	1.607	1.874	-16.6	175	0.00	16.99
112	1,2-dichlorobenzene	1.631	1.864	-14.3	169	0.00	17.36
113	n-butylbenzene	1.416	1.561	-10.2	163	0.00	17.25
114	1,2-dibromo-3-chloropropa	0.318	0.261	17.9	123	0.00	18.12
115	1,3,5-trichlorobenzene	1.411	1.621	-14.9	166	0.00	18.31
116	1,2,4-trichlorobenzene	1.339	1.456	-8.7	157	0.00	18.97
117	hexachlorobutadiene	0.650	0.677	-4.2	152	0.00	19.08
118	naphthalene	3.775	3.704	1.9	143	0.00	19.27
119	1,2,3-trichlorobenzene	1.202	1.315	-9.4	156	0.00	19.49
		True	Calc.	% Drift			
120	hexachloroethane	50.000	47.487	5.0	163	0.00	17.64
		AvgRF	CCRF	% Dev			
121	2-methylnaphthalene	1.547	1.187	23.3#	113	0.00	20.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C185730.D M2C8274.M Fri Nov 19 02:21:43 2021

Run Sequence Report

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Run ID: V2C8274 **Method:** SW846 8260D **Instrument ID:** GCMS2C

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2C8274-BFB	2C185722.D	09/24/21 14:39	n/a	BFB Tune
V2C8274-IC8274	2C185723.D	09/24/21 16:44	n/a	Initial cal 0.2
V2C8274-IC8274	2C185724.D	09/24/21 17:13	n/a	Initial cal 0.5
V2C8274-IC8274	2C185725.D	09/24/21 17:42	n/a	Initial cal 1
V2C8274-IC8274	2C185726.D	09/24/21 18:10	n/a	Initial cal 2
V2C8274-IC8274	2C185727.D	09/24/21 18:39	n/a	Initial cal 4
V2C8274-IC8274	2C185728.D	09/24/21 19:07	n/a	Initial cal 8
V2C8274-IC8274	2C185729.D	09/24/21 19:36	n/a	Initial cal 20
V2C8274-ICC8274	2C185730.D	09/24/21 20:05	n/a	Initial cal 50
V2C8274-IC8274	2C185731.D	09/24/21 20:34	n/a	Initial cal 100
V2C8274-IC8274	2C185732.D	09/24/21 21:03	n/a	Initial cal 200
V2C8274-ICV8274	2C185735.D	09/24/21 22:30	n/a	Initial cal verification 50
V2C8274-ICV8274	2C185736.D	09/24/21 22:59	n/a	Initial cal verification 50

Run Sequence Report

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Run ID: V2C8352 **Method:** SW846 8260D **Instrument ID:** GCMS2C

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2C8352-BFB	2C187620.D	11/17/21 09:18	n/a	BFB Tune
V2C8352-CC8274	2C187620.D	11/17/21 09:18	n/a	Continuing cal 50
V2C8352-BS	2C187622.D	11/17/21 10:18	n/a	Blank Spike
V2C8352-BSD	2C187623.D	11/17/21 10:47	n/a	Blank Spike Duplicate
V2C8352-MB	2C187625.D	11/17/21 12:01	n/a	Method Blank
ZZZZZZ	2C187626.D	11/17/21 12:46	n/a	(unrelated sample)
ZZZZZZ	2C187627.D	11/17/21 13:15	n/a	(unrelated sample)
ZZZZZZ	2C187629.D	11/17/21 14:13	n/a	(unrelated sample)
ZZZZZZ	2C187631.D	11/17/21 15:11	n/a	(unrelated sample)
ZZZZZZ	2C187632.D	11/17/21 15:40	n/a	(unrelated sample)
JD35270-6MS	2C187633.D	11/17/21 16:09	n/a	Matrix Spike
JD35270-6MSD	2C187634.D	11/17/21 16:39	n/a	Matrix Spike Duplicate
JD35270-6	2C187636.D	11/17/21 17:37	n/a	OUTFALL 001
JD35270-1	2C187637.D	11/17/21 18:06	n/a	BD24 SEEP 110821
JD35270-2	2C187638.D	11/17/21 18:35	n/a	RW SEEP 110821
JD35270-3	2C187639.D	11/17/21 19:05	n/a	OPEN DITCH 001 110821
JD35270-4	2C187640.D	11/17/21 19:34	n/a	BYPASS 110821
JD35270-5	2C187641.D	11/17/21 20:03	n/a	WB SEEPS 110821
JD35270-7	2C187642.D	11/17/21 20:32	n/a	WOODEN SLUICE 110821
JD35270-8	2C187643.D	11/17/21 21:02	n/a	WS 110821

Run Sequence Report

Job Number: JD35270
Account: ESCVAR WSP Environment & Energy
Project: EPT, Ithaca, NY

Run ID: V2C8354	**Method:** SW846 8260D	**Instrument ID:** GCMS2C

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2C8354-BFB	2C187669.D	11/18/21 10:30	n/a	BFB Tune
V2C8354-CC8274	2C187669.D	11/18/21 10:30	n/a	Continuing cal 50
V2C8354-BS	2C187673.D	11/18/21 12:49	n/a	Blank Spike
V2C8354-MB	2C187675.D	11/18/21 13:47	n/a	Method Blank
JD34929-13	2C187676.D	11/18/21 14:16	n/a	(used for QC only; not part of job JD35270)
ZZZZZZ	2C187677.D	11/18/21 14:44	n/a	(unrelated sample)
ZZZZZZ	2C187678.D	11/18/21 15:13	n/a	(unrelated sample)
ZZZZZZ	2C187679.D	11/18/21 15:42	n/a	(unrelated sample)
ZZZZZZ	2C187680.D	11/18/21 16:12	n/a	(unrelated sample)
ZZZZZZ	2C187681.D	11/18/21 16:41	n/a	(unrelated sample)
ZZZZZZ	2C187682.D	11/18/21 17:10	n/a	(unrelated sample)
ZZZZZZ	2C187683.D	11/18/21 17:40	n/a	(unrelated sample)
JD34929-13MS	2C187684.D	11/18/21 18:09	n/a	Matrix Spike
JD34929-13MSD	2C187685.D	11/18/21 18:39	n/a	Matrix Spike Duplicate
JD35270-9	2C187687.D	11/18/21 19:37	n/a	EB-110821
ZZZZZZ	2C187688.D	11/18/21 20:06	n/a	(unrelated sample)
ZZZZZZ	2C187689.D	11/18/21 20:35	n/a	(unrelated sample)
ZZZZZZ	2C187690.D	11/18/21 21:04	n/a	(unrelated sample)
ZZZZZZ	2C187691.D	11/18/21 21:33	n/a	(unrelated sample)
ZZZZZZ	2C187692.D	11/18/21 22:02	n/a	(unrelated sample)

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187637.d
Acq On : 17 Nov 2021 6:06 pm
Operator : thienn
Sample : JD35270-1 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:47:11 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

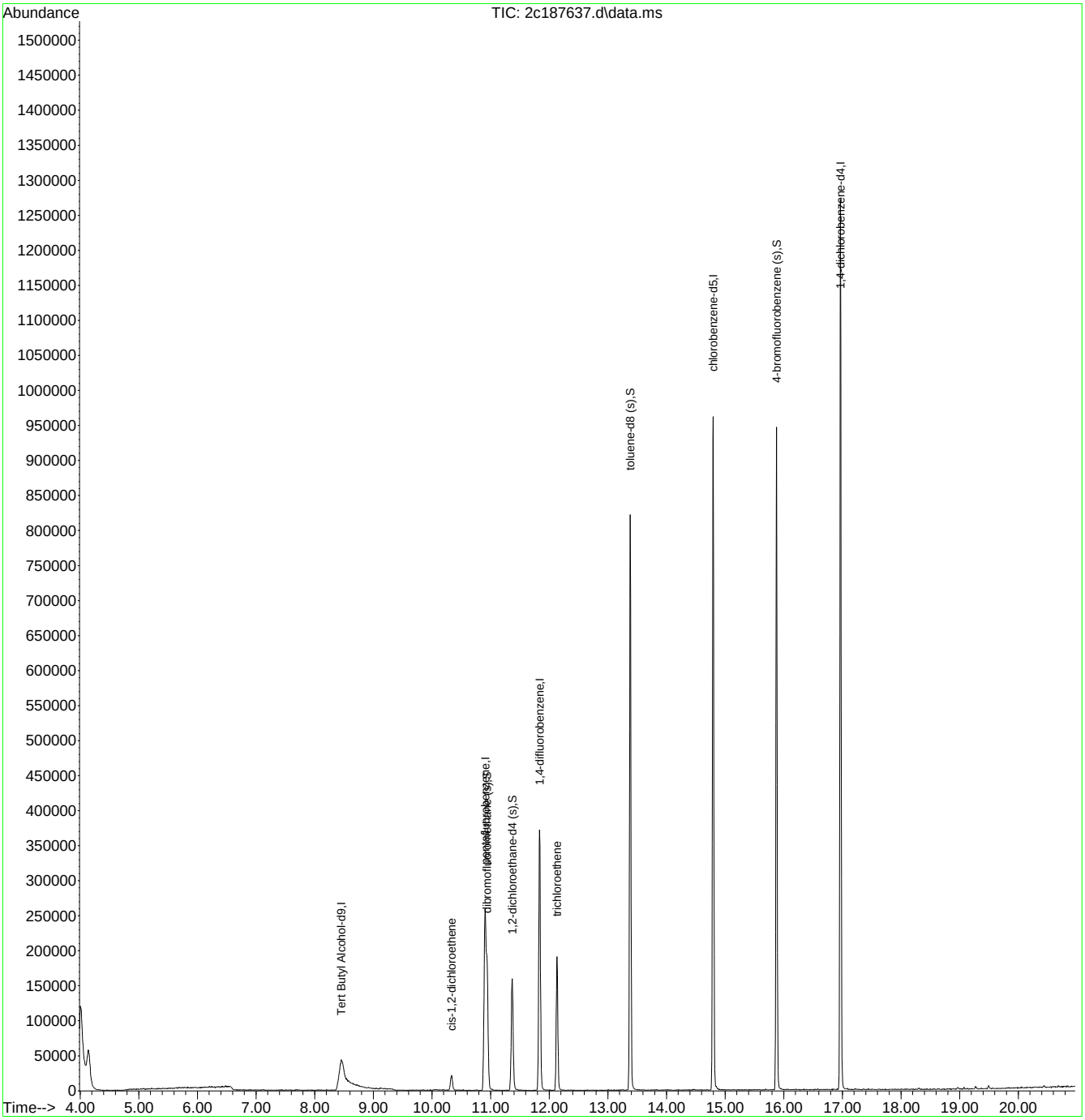
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.454	65	230260	500.00	ug/L	-0.04
5) pentafluorobenzene	10.908	168	218151	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	340715	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	479305	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	292124	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	119385	52.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.26%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	132090	46.58	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.16%			
73) toluene-d8 (s)	13.382	98	514689	43.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.78%			
96) 4-bromofluorobenzene (s)	15.878	95	251372	55.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.12%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	10.336	96	12832	4.43	ug/L	89
60) trichloroethene	12.129	95	63053	24.92	ug/L	97

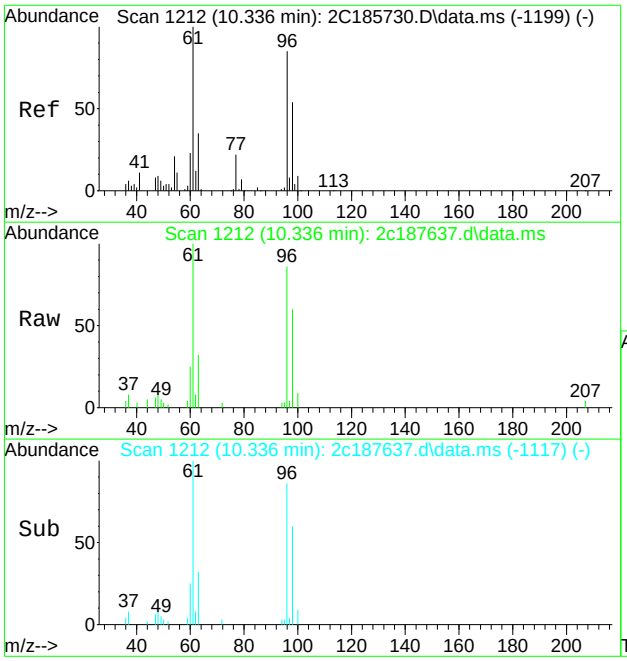
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187637.d
Acq On : 17 Nov 2021 6:06 pm
Operator : thienn
Sample : JD35270-1 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:47:11 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

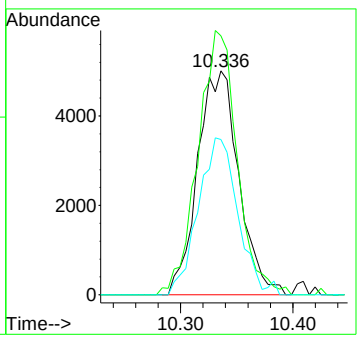


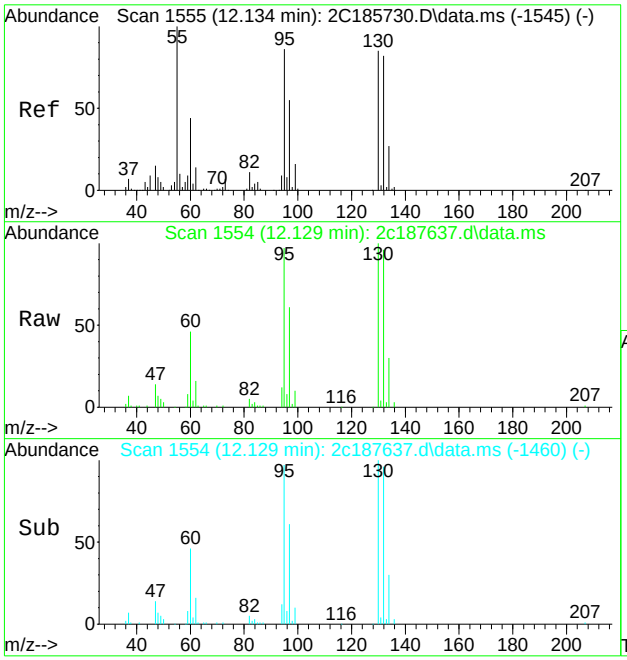


#36
cis-1,2-dichloroethene
Concen: 4.43 ug/L
RT: 10.336 min Scan# 1212
Delta R.T. -0.000 min
Lab File: 2c187637.d
Acq: 17 Nov 2021 6:06 pm

Tgt Ion: 96 Resp: 12832

Ion	Ratio	Lower	Upper
96	100		
61	112.4	96.8	156.8
98	69.4	33.7	93.7

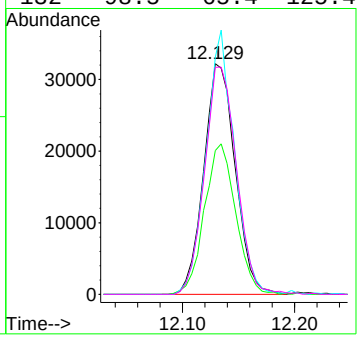




#60
trichloroethene
Concen: 24.92 ug/L
RT: 12.129 min Scan# 1554
Delta R.T. -0.005 min
Lab File: 2c187637.d
Acq: 17 Nov 2021 6:06 pm

Tgt Ion: 95 Resp: 63053

Ion	Ratio	Lower	Upper
95	100		
97	62.4	33.2	93.2
130	102.9	68.6	128.6
132	98.5	65.4	125.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187638.d
Acq On : 17 Nov 2021 6:35 pm
Operator : thienn
Sample : JD35270-2 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:47:51 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

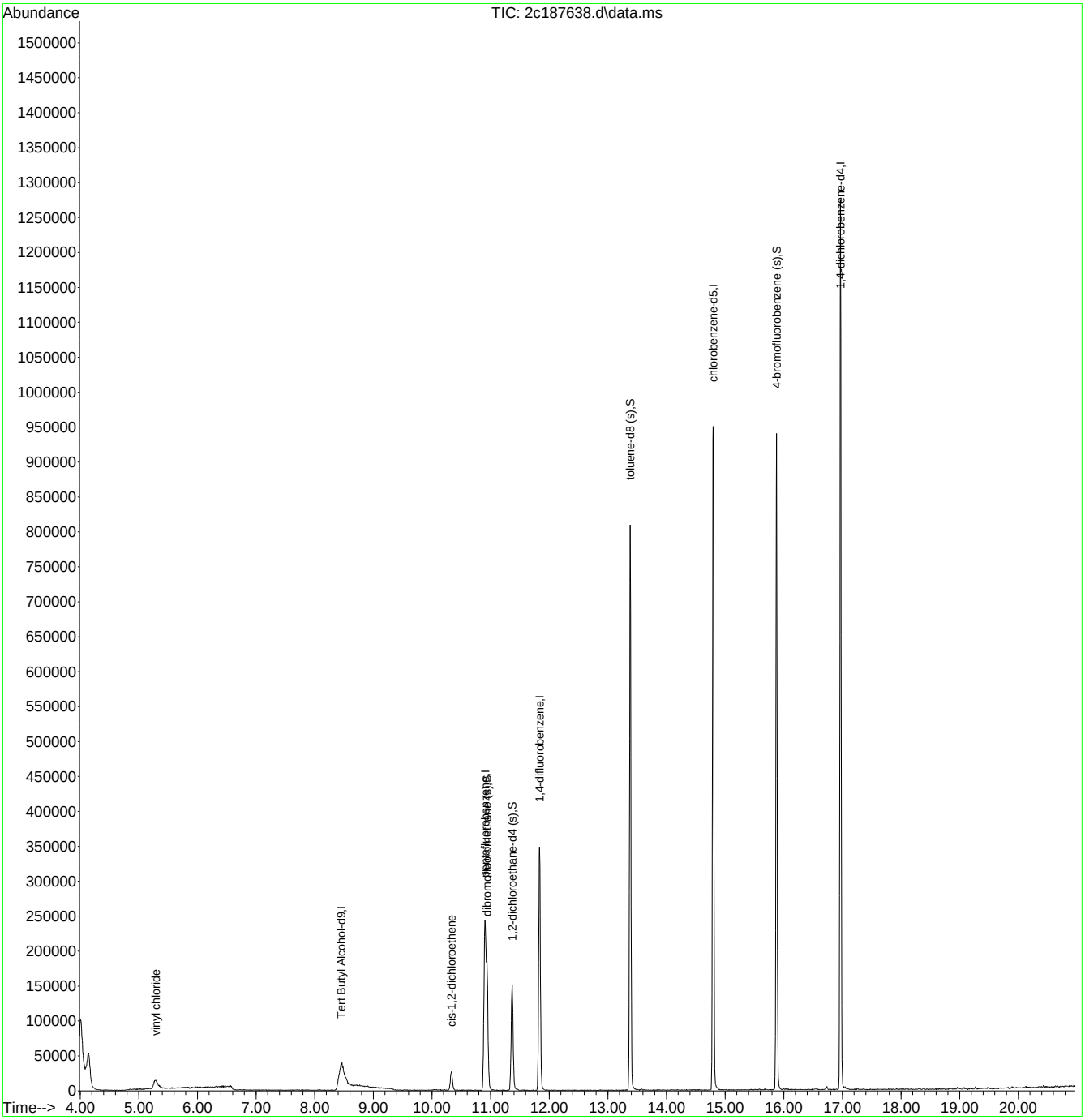
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.454	65	222522	500.00	ug/L	-0.04
5) pentafluorobenzene	10.908	168	208492	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	325545	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	484267	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	294657	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	115973	52.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.98%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	128330	47.36	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.72%			
73) toluene-d8 (s)	13.382	98	513564	42.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.70%			
96) 4-bromofluorobenzene (s)	15.878	95	254869	55.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.68%			
Target Compounds						Qvalue
9) vinyl chloride	5.287	62	37247	9.00	ug/L	95
36) cis-1,2-dichloroethene	10.336	96	16657	6.02	ug/L	93

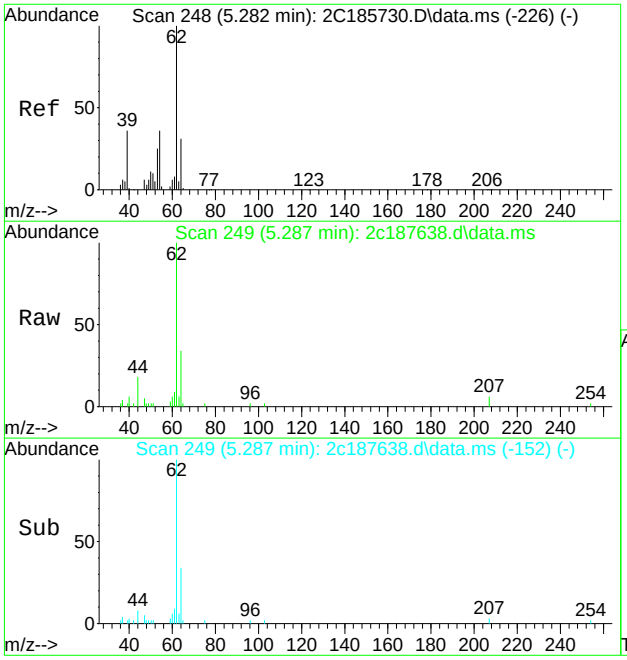
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187638.d
Acq On : 17 Nov 2021 6:35 pm
Operator : thienn
Sample : JD35270-2 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:47:51 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

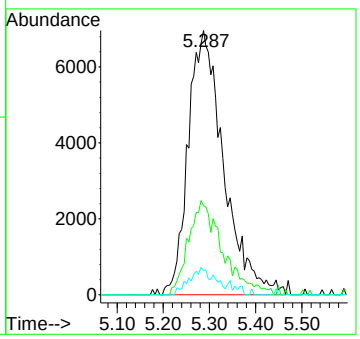


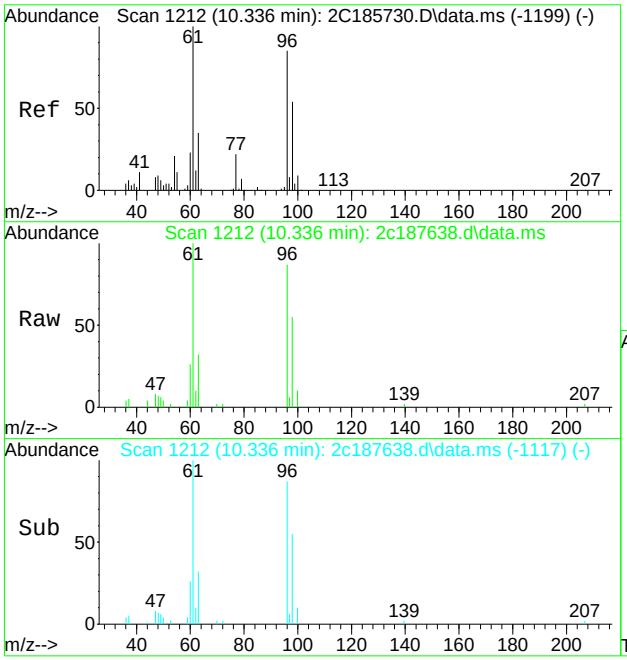


#9
vinyl chloride
Concen: 9.00 ug/L
RT: 5.287 min Scan# 249
Delta R.T. 0.010 min
Lab File: 2c187638.d
Acq: 17 Nov 2021 6:35 pm

Tgt Ion: 62 Resp: 37247

Ion	Ratio	Lower	Upper
62	100		
64	33.7	1.2	61.2
61	9.1	0.0	37.5

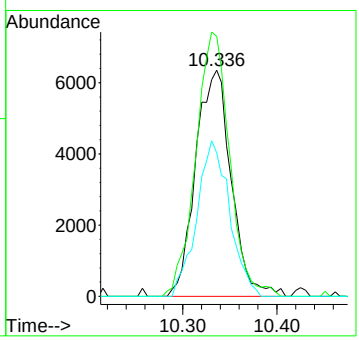




#36
cis-1,2-dichloroethene
Concen: 6.02 ug/L
RT: 10.336 min Scan# 1212
Delta R.T. -0.000 min
Lab File: 2c187638.d
Acq: 17 Nov 2021 6:35 pm

Tgt Ion: 96 Resp: 16657

Ion	Ratio	Lower	Upper
96	100		
61	115.1	96.8	156.8
98	63.5	33.7	93.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187639.d
Acq On : 17 Nov 2021 7:05 pm
Operator : thienn
Sample : JD35270-3 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:48:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

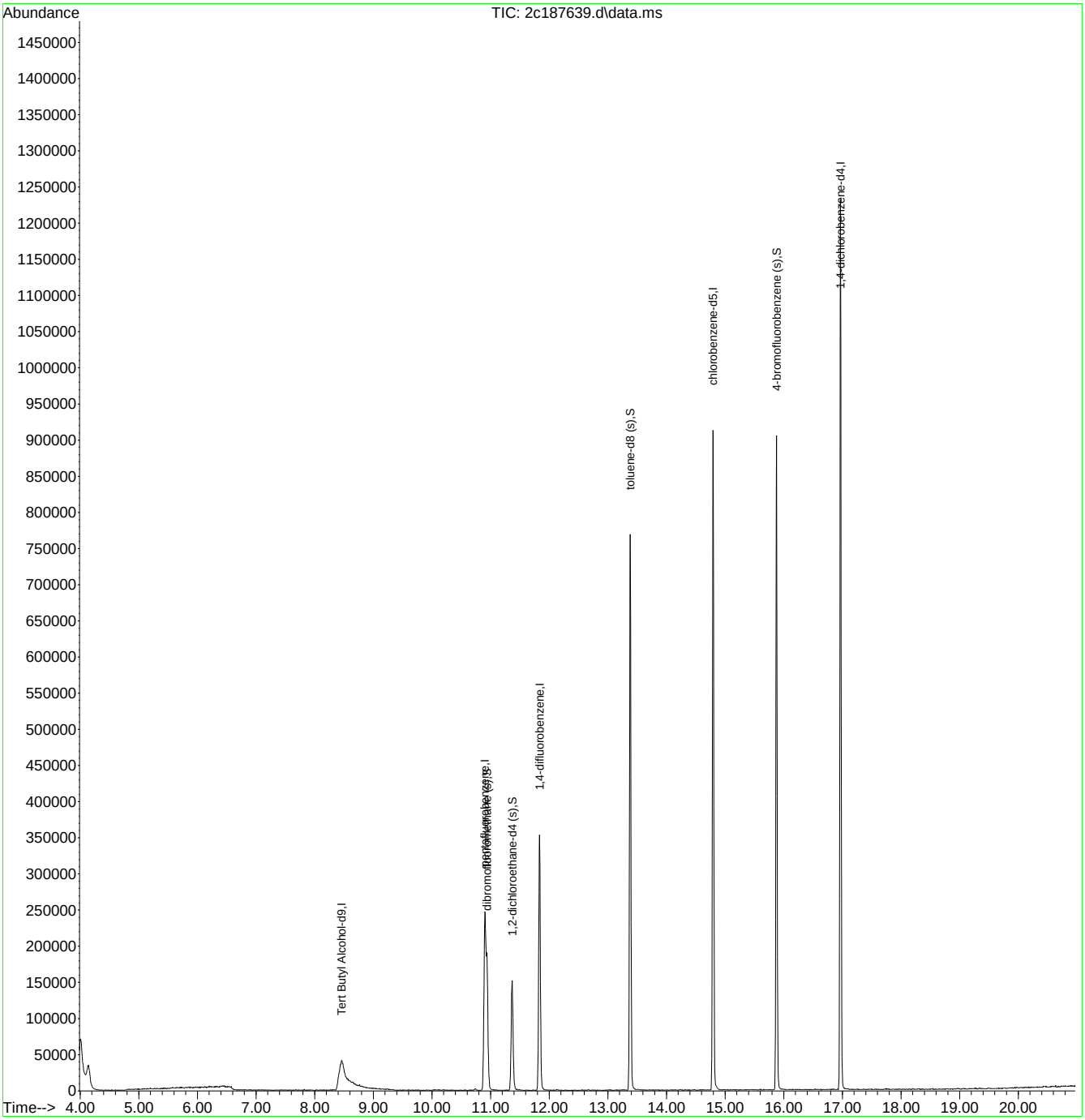
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.459	65	237168	500.00	ug/L	-0.03
5) pentafluorobenzene	10.902	168	205436	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	321259	50.00	ug/L	0.00
72) chlorobenzene-d5	14.793	117	465845	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	284579	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	115147	53.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.78%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	126101	47.16	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.32%			
73) toluene-d8 (s)	13.382	98	492794	42.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.50%			
96) 4-bromofluorobenzene (s)	15.878	95	243715	54.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.58%			
Target Compounds						Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187639.d
Acq On : 17 Nov 2021 7:05 pm
Operator : thienn
Sample : JD35270-3 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:48:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187640.d
Acq On : 17 Nov 2021 7:34 pm
Operator : thienn
Sample : JD35270-4 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:49:04 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

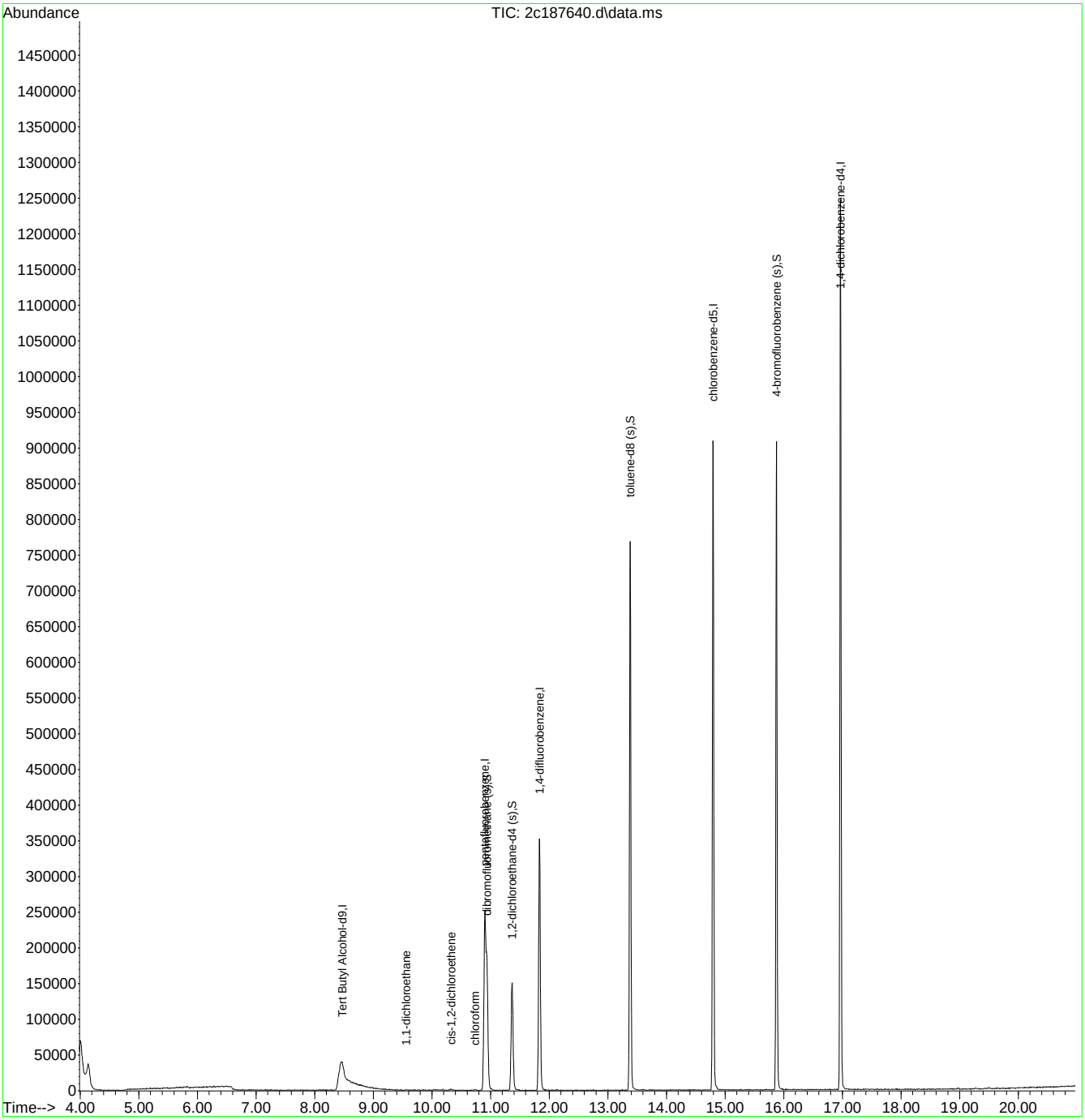
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.469	65	246487	500.00	ug/L	-0.02
5) pentafluorobenzene	10.902	168	207987	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	323648	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	469268	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	287559	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	117151	53.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.32%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	126370	46.91	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.82%			
73) toluene-d8 (s)	13.382	98	498035	42.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.78%			
96) 4-bromofluorobenzene (s)	15.878	95	246287	54.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.60%			
Target Compounds						Qvalue
28) 1,1-dichloroethane	9.560	63	1007	0.26	ug/L	79
36) cis-1,2-dichloroethene	10.331	96	1115	0.40	ug/L #	62
40) chloroform	10.734	83	1218	0.28	ug/L	69

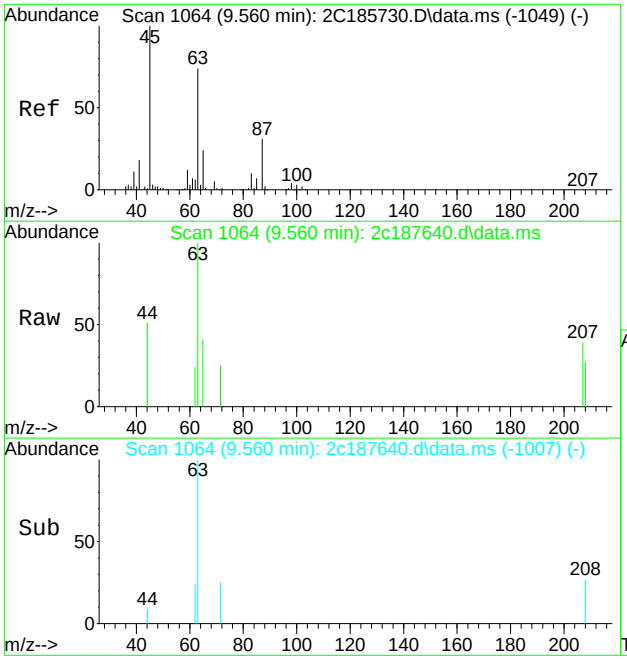
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187640.d
Acq On : 17 Nov 2021 7:34 pm
Operator : thienn
Sample : JD35270-4 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:49:04 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

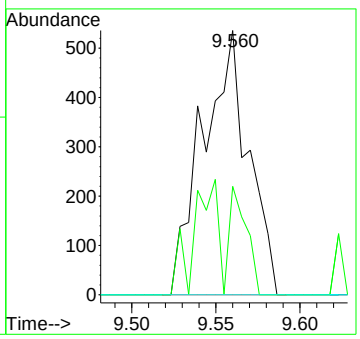


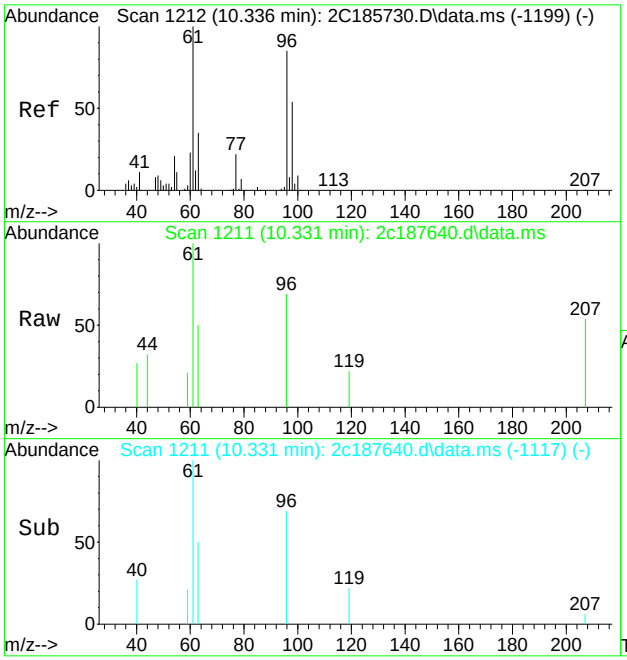


#28
1,1-dichloroethane
Concen: 0.26 ug/L
RT: 9.560 min Scan# 1064
Delta R.T. -0.000 min
Lab File: 2c187640.d
Acq: 17 Nov 2021 7:34 pm

Tgt Ion: 63 Resp: 1007

Ion	Ratio	Lower	Upper
63	100		
65	41.0	1.9	61.9
83	0.0	0.0	43.0

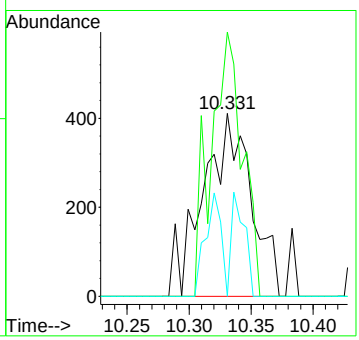


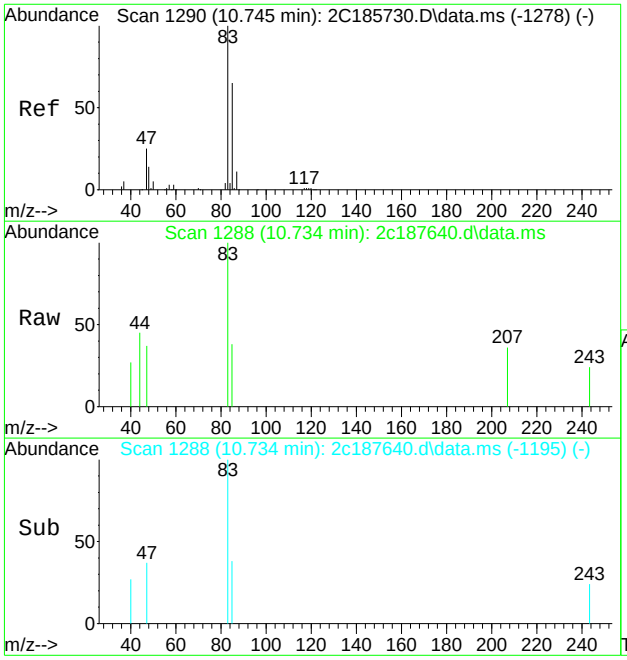


#36
cis-1,2-dichloroethene
Concen: 0.40 ug/L
RT: 10.331 min Scan# 1211
Delta R.T. -0.005 min
Lab File: 2c187640.d
Acq: 17 Nov 2021 7:34 pm

Tgt Ion: 96 Resp: 1115

Ion	Ratio	Lower	Upper
96	100		
61	144.5	96.8	156.8
98	0.0	33.7	93.7#

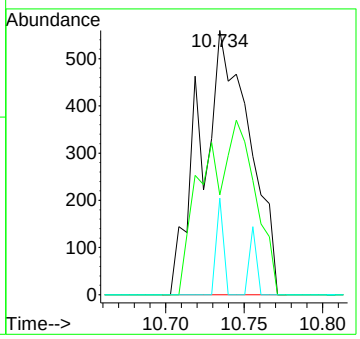




#40
chloroform
Concen: 0.28 ug/L
RT: 10.734 min Scan# 1288
Delta R.T. -0.011 min
Lab File: 2c187640.d
Acq: 17 Nov 2021 7:34 pm

Tgt Ion: 83 Resp: 1218

Ion	Ratio	Lower	Upper
83	100		
85	37.7	35.4	95.4
47	36.6	0.0	55.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187641.d
Acq On : 17 Nov 2021 8:03 pm
Operator : thienn
Sample : JD35270-5 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:49:46 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

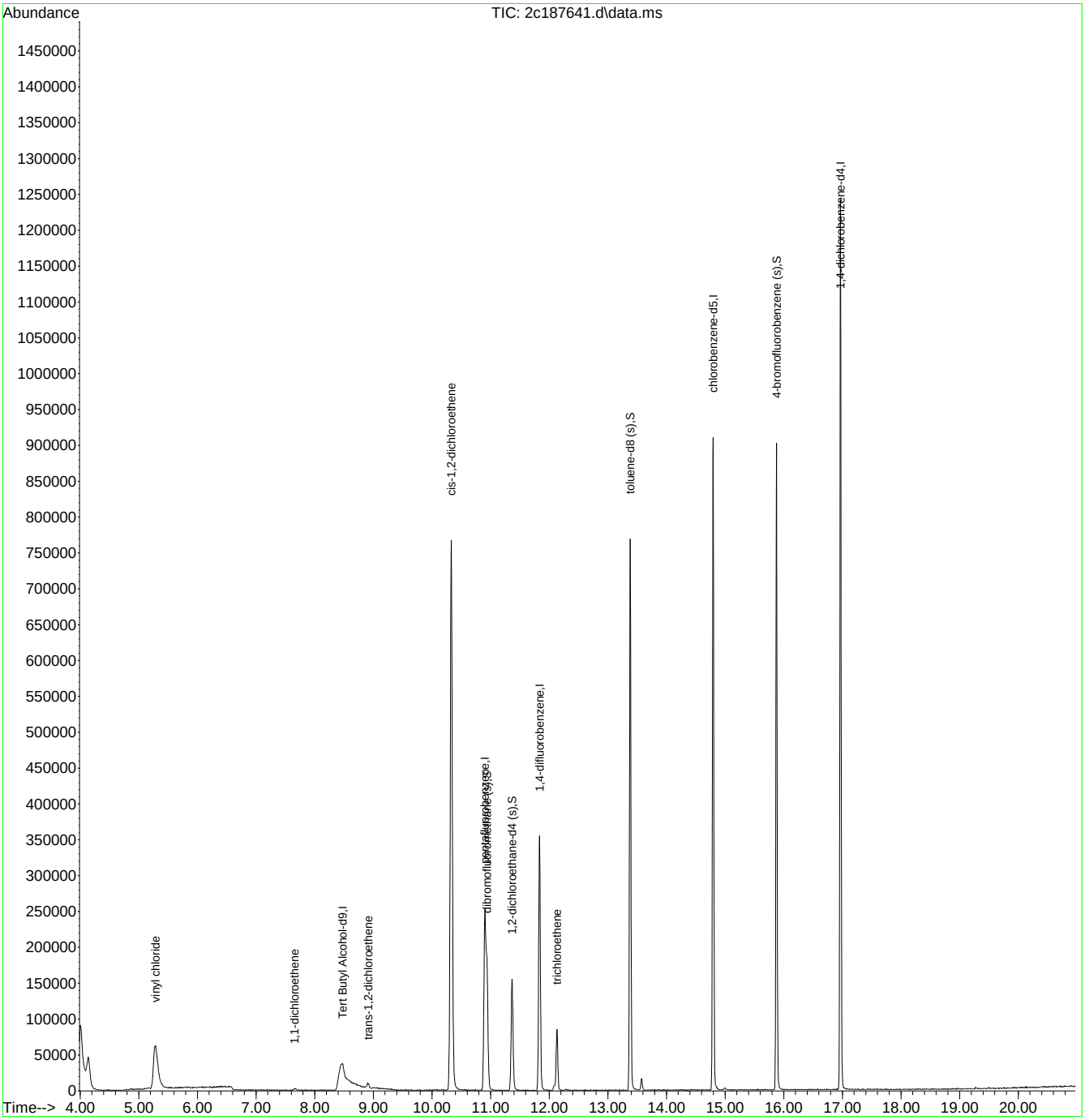
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.475	65	234276	500.00	ug/L	-0.02
5) pentafluorobenzene	10.902	168	211065	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	326585	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	458702	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	285791	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	117682	53.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.22%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	126888	46.68	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.36%			
73) toluene-d8 (s)	13.382	98	492547	43.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.78%			
96) 4-bromofluorobenzene (s)	15.878	95	241390	54.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.08%			
Target Compounds						Qvalue
9) vinyl chloride	5.282	62	194814	46.48	ug/L	98
17) 1,1-dichloroethene	7.657	96	1530	0.60	ug/L #	69
25) trans-1,2-dichloroethene	8.910	96	3611	1.41	ug/L	92
36) cis-1,2-dichloroethene	10.331	96	451427	161.11	ug/L	93
60) trichloroethene	12.134	95	29114	12.00	ug/L	96

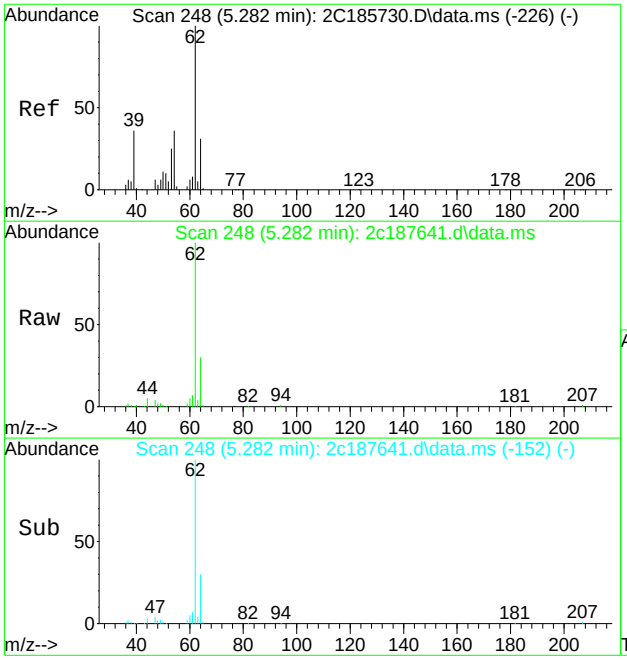
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187641.d
Acq On : 17 Nov 2021 8:03 pm
Operator : thienn
Sample : JD35270-5 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:49:46 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

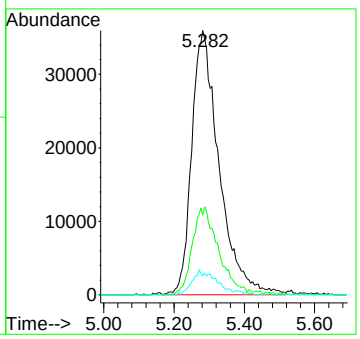


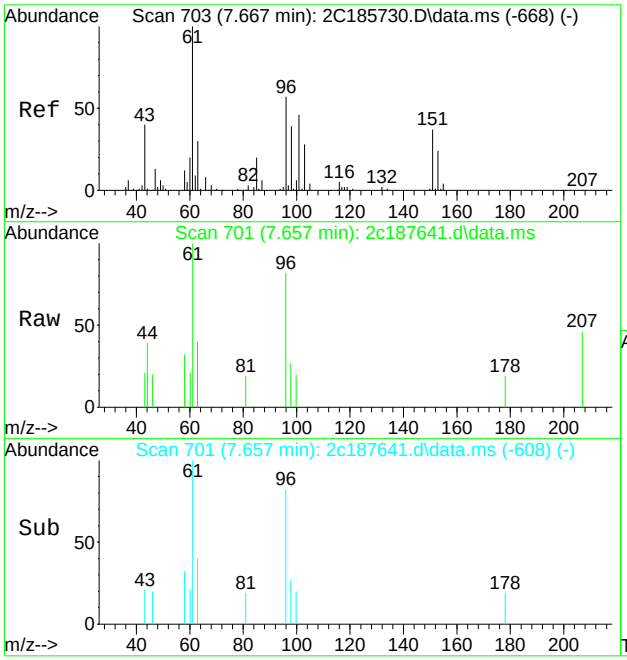


#9
vinyl chloride
Concen: 46.48 ug/L
RT: 5.282 min Scan# 248
Delta R.T. 0.005 min
Lab File: 2c187641.d
Acq: 17 Nov 2021 8:03 pm

Tgt Ion: 62 Resp: 194814

Ion	Ratio	Lower	Upper
62	100		
64	30.1	1.2	61.2
61	7.1	0.0	37.5

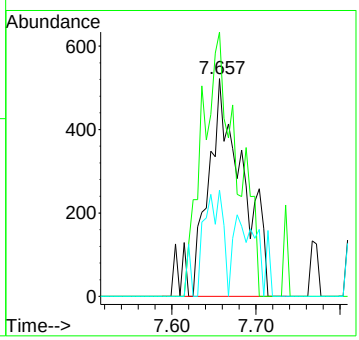


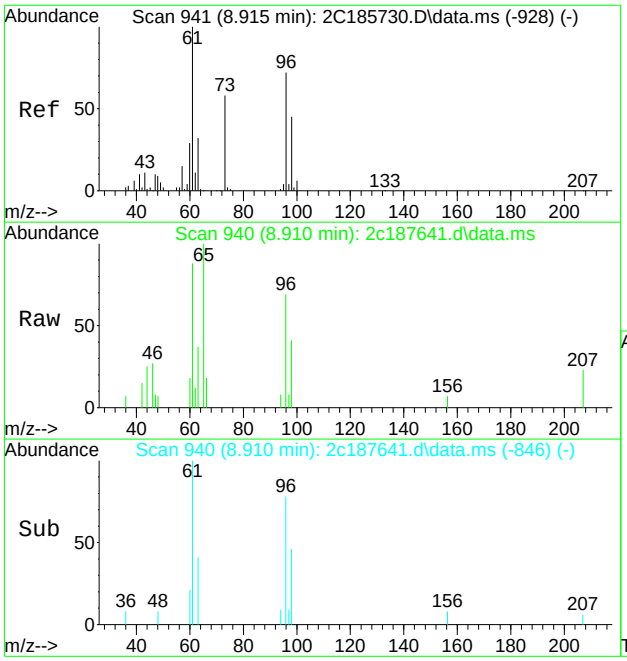


#17
1,1-dichloroethene
Concen: 0.60 ug/L
RT: 7.657 min Scan# 701
Delta R.T. -0.011 min
Lab File: 2c187641.d
Acq: 17 Nov 2021 8:03 pm

Tgt Ion: 96 Resp: 1530

Ion	Ratio	Lower	Upper
96	100		
61	121.5	144.5	204.5#
63	48.9	22.8	82.8

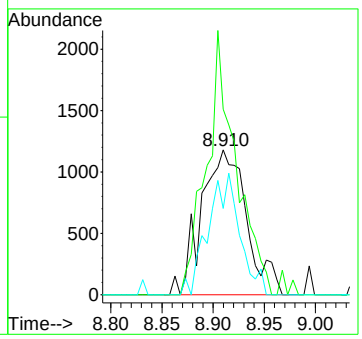


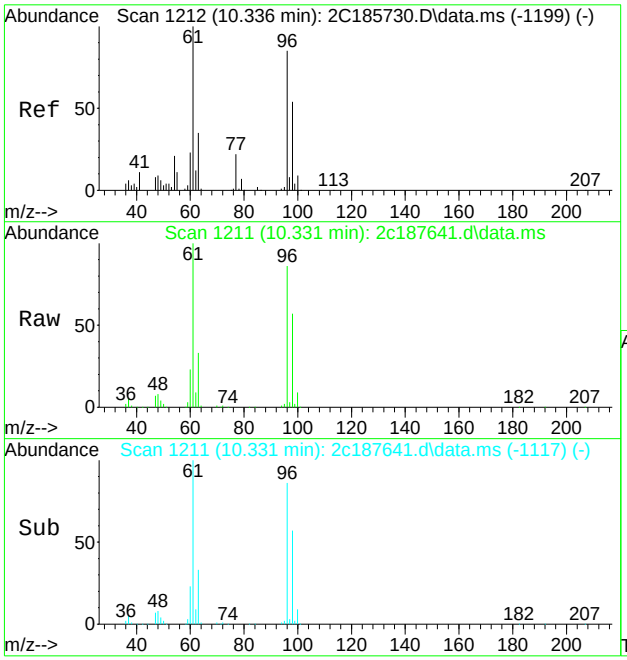


#25
trans-1,2-dichloroethene
Concen: 1.41 ug/L
RT: 8.910 min Scan# 940
Delta R.T. -0.005 min
Lab File: 2c187641.d
Acq: 17 Nov 2021 8:03 pm

Tgt Ion: 96 Resp: 3611

Ion	Ratio	Lower	Upper
96	100		
61	128.1	109.8	169.8
98	59.5	33.1	93.1

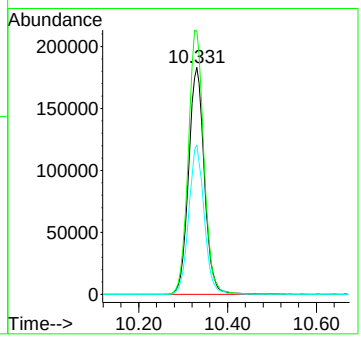


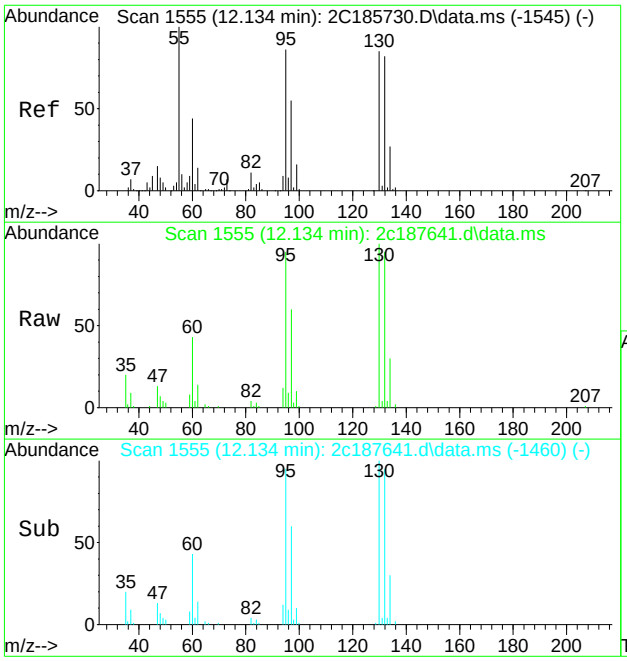


#36
cis-1,2-dichloroethene
Concen: 161.11 ug/L
RT: 10.331 min Scan# 1211
Delta R.T. -0.005 min
Lab File: 2c187641.d
Acq: 17 Nov 2021 8:03 pm

Tgt Ion: 96 Resp: 451427

Ion	Ratio	Lower	Upper
96	100		
61	116.1	96.8	156.8
98	65.8	33.7	93.7

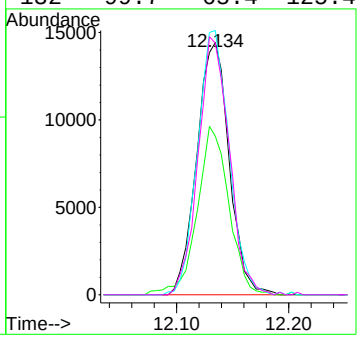




#60
trichloroethene
Concen: 12.00 ug/L
RT: 12.134 min Scan# 1555
Delta R.T. -0.000 min
Lab File: 2c187641.d
Acq: 17 Nov 2021 8:03 pm

Tgt Ion: 95 Resp: 29114

Ion	Ratio	Lower	Upper
95	100		
97	62.8	33.2	93.2
130	104.8	68.6	128.6
132	99.7	65.4	125.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187636.d
Acq On : 17 Nov 2021 5:37 pm
Operator : thienn
Sample : JD35270-6 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:17:38 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

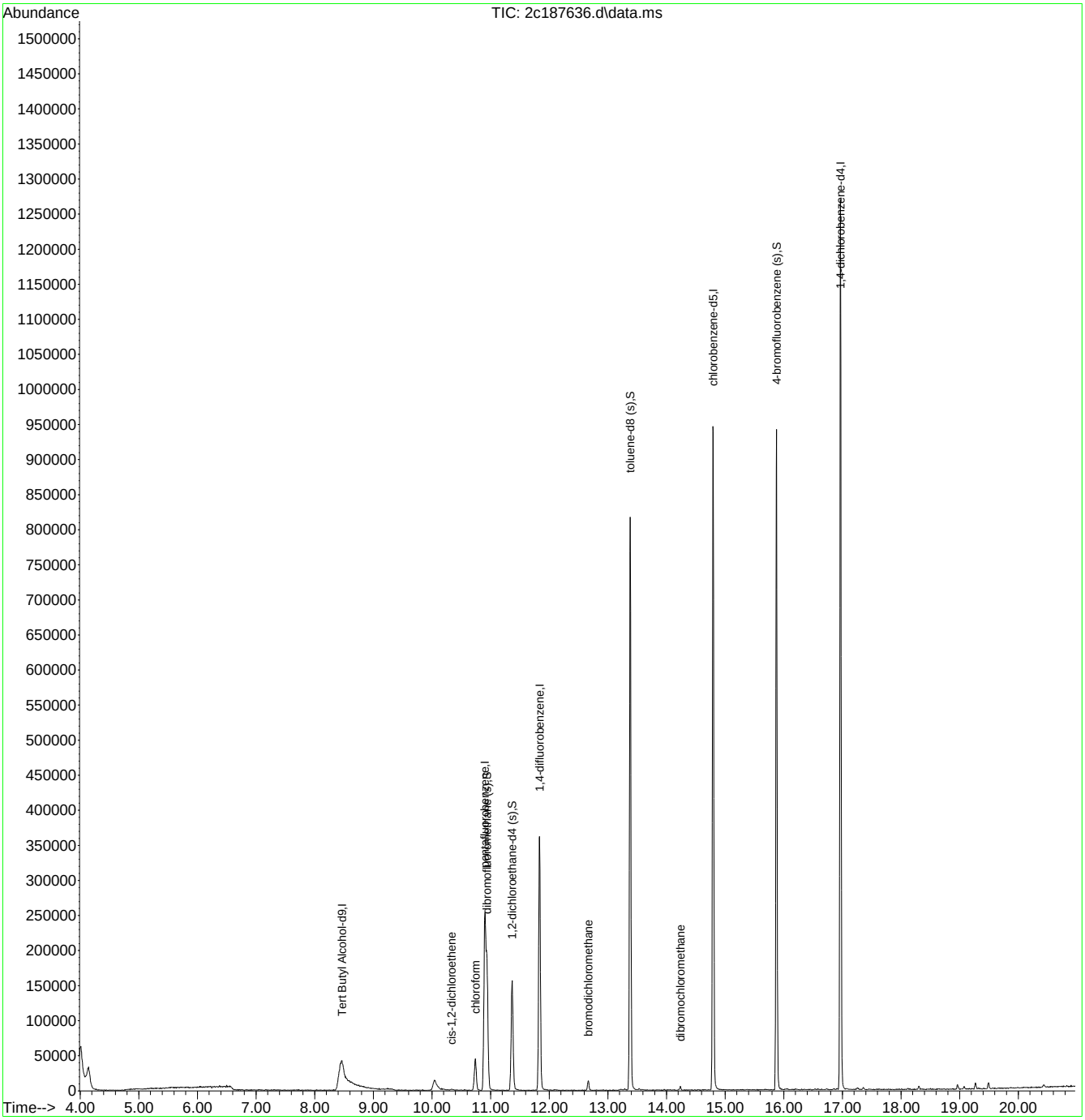
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.464	65	241935	500.00	ug/L	-0.03
5) pentafluorobenzene	10.902	168	217084	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	339708	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	483024	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	294038	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	120913	53.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.12%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	131923	46.66	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.32%			
73) toluene-d8 (s)	13.382	98	521104	43.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.18%			
96) 4-bromofluorobenzene (s)	15.878	95	251871	54.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.62%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	10.336	96	985	0.34	ug/L #	58
40) chloroform	10.740	83	42292	9.46	ug/L	90
67) bromodichloromethane	12.664	83	9028	2.64	ug/L	86
82) dibromochloromethane	14.237	129	2665	0.67	ug/L	95

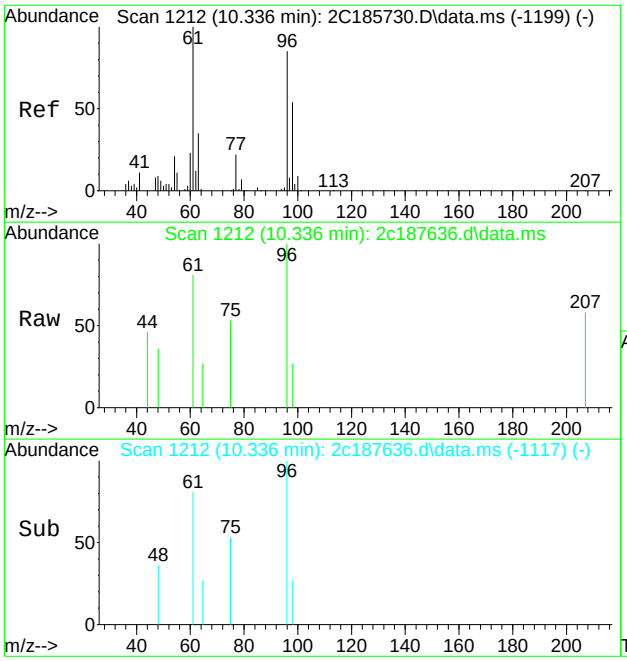
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187636.d
Acq On : 17 Nov 2021 5:37 pm
Operator : thienn
Sample : JD35270-6 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:17:38 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

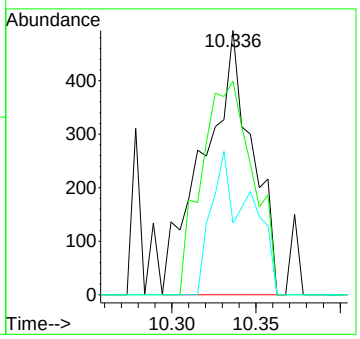


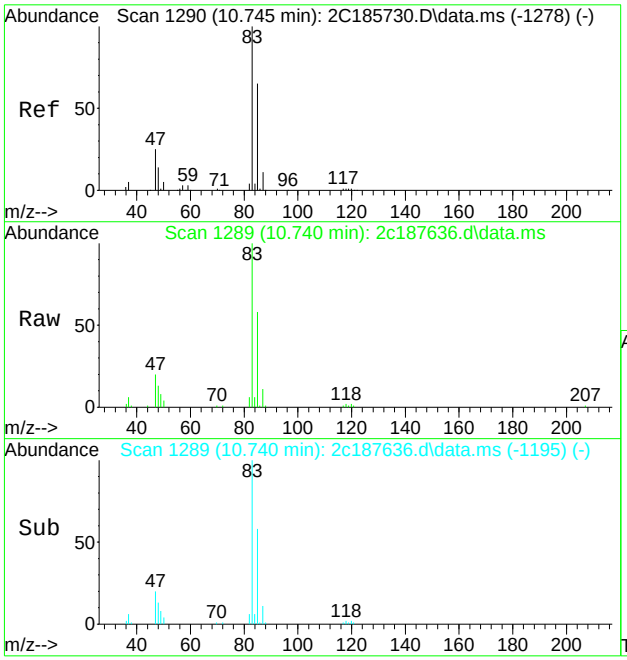


#36
cis-1,2-dichloroethene
Concen: 0.34 ug/L
RT: 10.336 min Scan# 1212
Delta R.T. -0.000 min
Lab File: 2c187636.d
Acq: 17 Nov 2021 5:37 pm

Tgt Ion: 96 Resp: 985

Ion	Ratio	Lower	Upper
96	100		
61	80.8	96.8	156.8#
98	27.1	33.7	93.7#

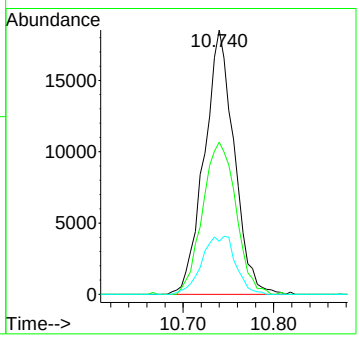


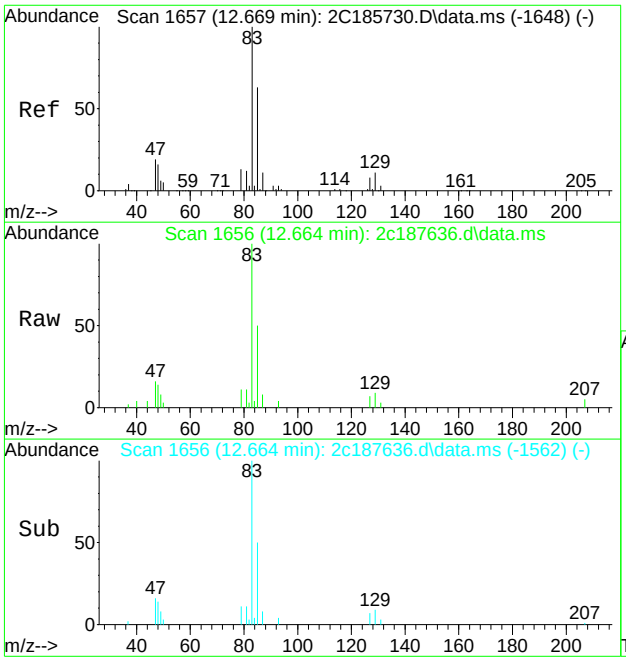


#40
chloroform
Concen: 9.46 ug/L
RT: 10.740 min Scan# 1289
Delta R.T. -0.005 min
Lab File: 2c187636.d
Acq: 17 Nov 2021 5:37 pm

Tgt Ion: 83 Resp: 42292

Ion	Ratio	Lower	Upper
83	100		
85	57.5	35.4	95.4
47	20.0	0.0	55.8

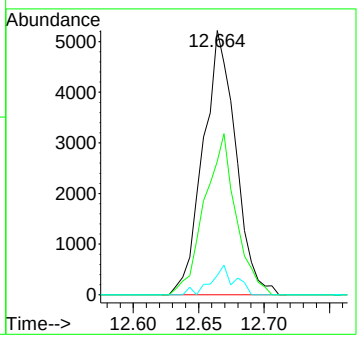


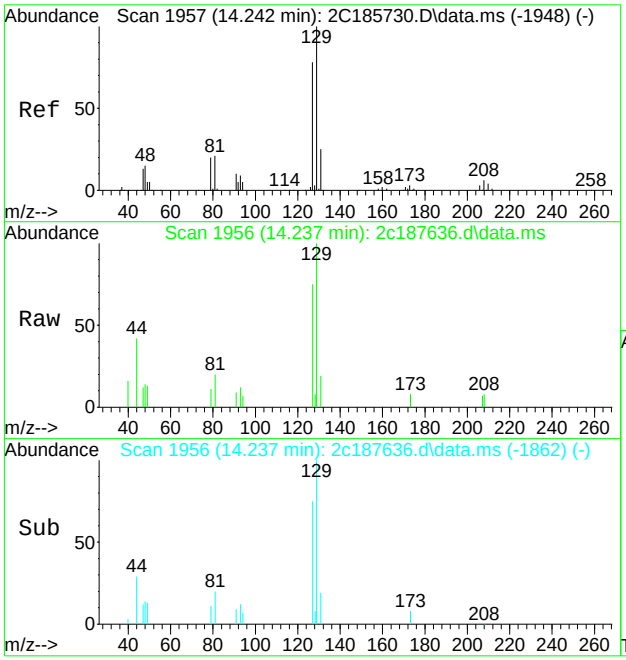


#67
bromodichloromethane
Concen: 2.64 ug/L
RT: 12.664 min Scan# 1656
Delta R.T. -0.005 min
Lab File: 2c187636.d
Acq: 17 Nov 2021 5:37 pm

Tgt Ion: 83 Resp: 9028

Ion	Ratio	Lower	Upper
83	100		
85	50.4	32.7	92.7
127	7.3	0.0	38.0

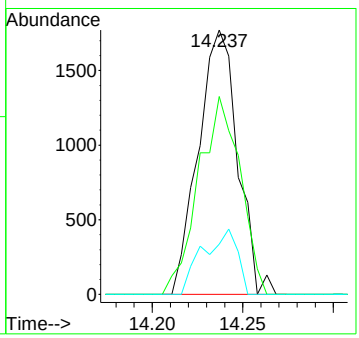




#82
dibromochloromethane
Concen: 0.67 ug/L
RT: 14.237 min Scan# 1956
Delta R.T. -0.005 min
Lab File: 2c187636.d
Acq: 17 Nov 2021 5:37 pm

Tgt Ion:129 Resp: 2665

Ion	Ratio	Lower	Upper
129	100		
127	74.8	47.6	107.6
131	19.0	0.0	54.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187642.d
Acq On : 17 Nov 2021 8:32 pm
Operator : thienn
Sample : JD35270-7 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:50:28 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

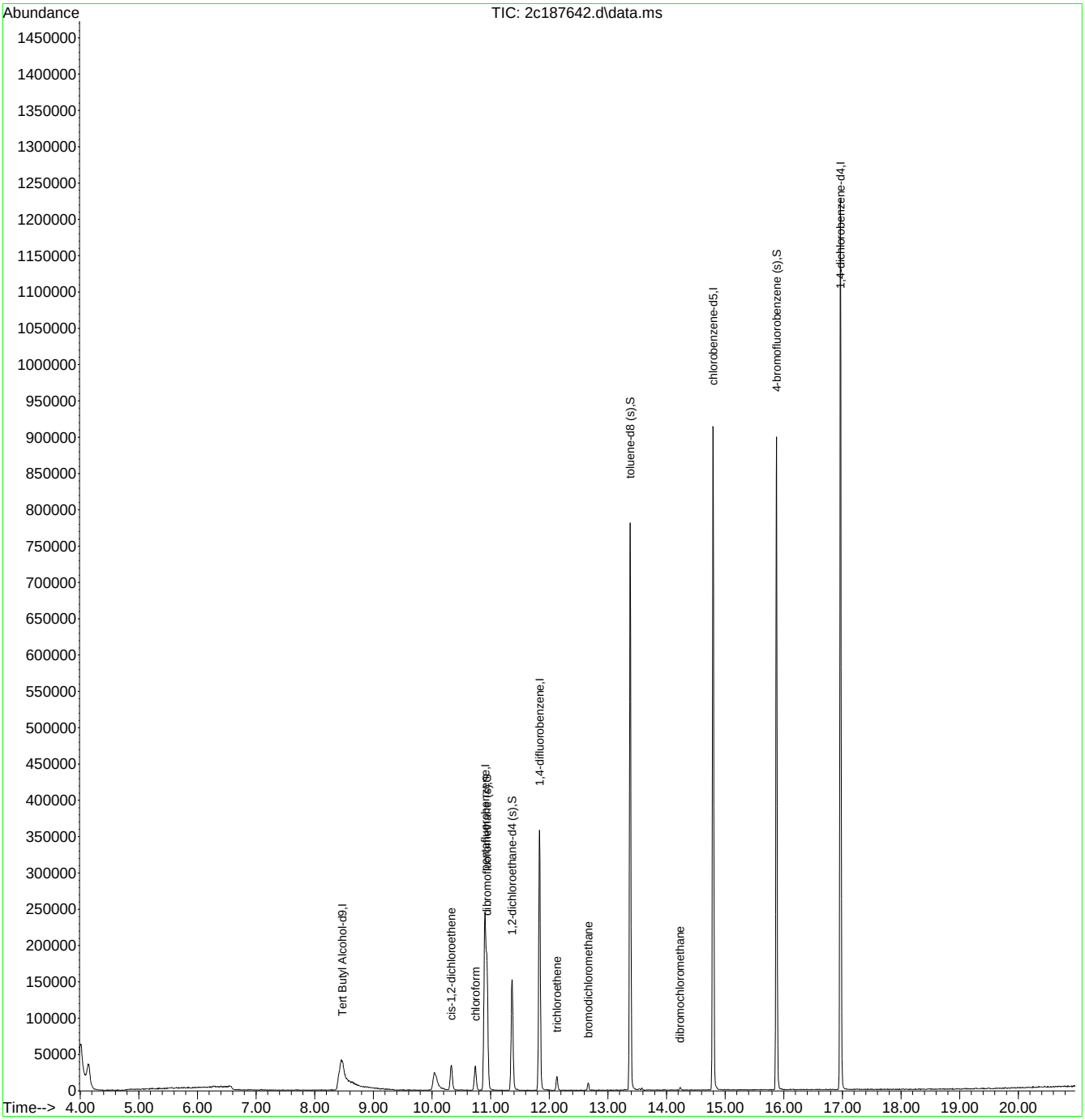
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.470	65	237609	500.00	ug/L	-0.02
5) pentafluorobenzene	10.908	168	205027	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	326165	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	464680	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	283558	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	116455	54.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.22%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	126196	46.49	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.98%			
73) toluene-d8 (s)	13.382	98	492545	42.83	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.66%			
96) 4-bromofluorobenzene (s)	15.878	95	244170	55.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.18%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	10.331	96	21495	7.90	ug/L	83
40) chloroform	10.740	83	31544	7.47	ug/L	94
60) trichloroethene	12.129	95	6187	2.55	ug/L	92
67) bromodichloromethane	12.664	83	6336	1.93	ug/L	92
82) dibromochloromethane	14.232	129	2022	0.53	ug/L	86

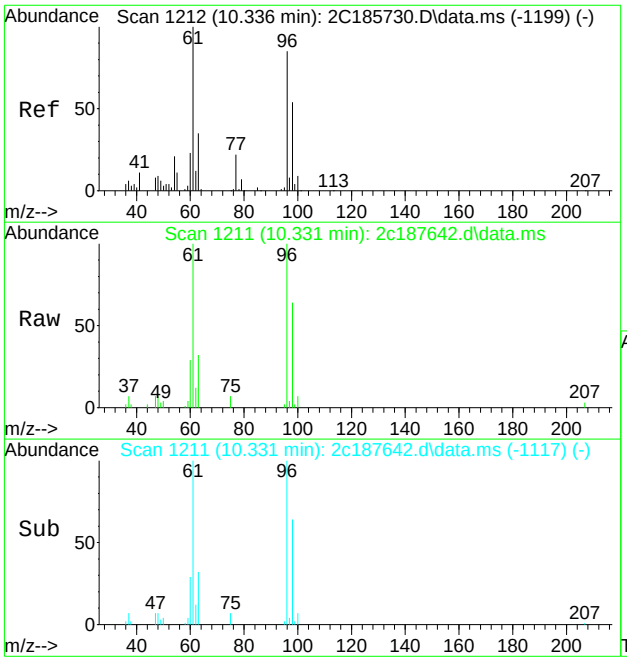
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187642.d
Acq On : 17 Nov 2021 8:32 pm
Operator : thienn
Sample : JD35270-7 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:50:28 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

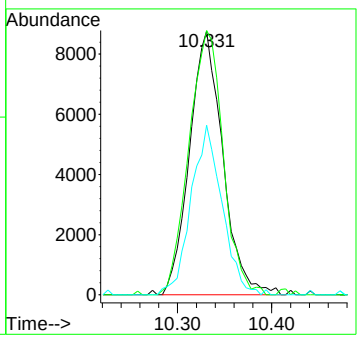


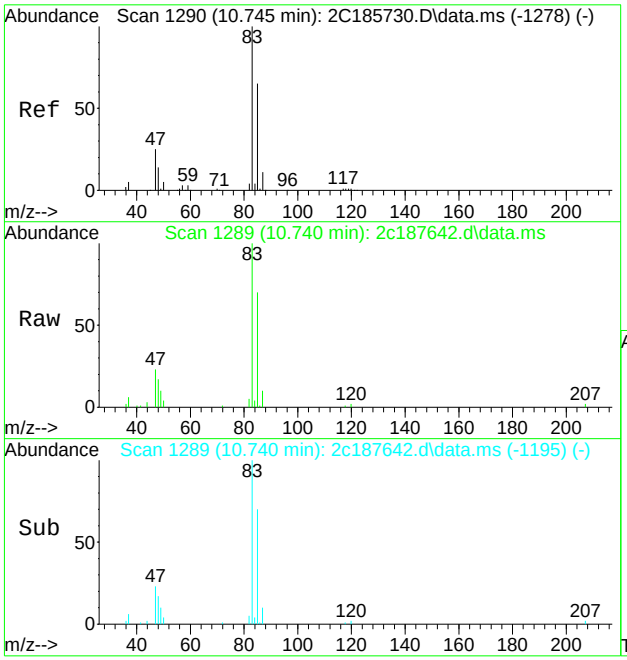


#36
cis-1,2-dichloroethene
Concen: 7.90 ug/L
RT: 10.331 min Scan# 1211
Delta R.T. -0.005 min
Lab File: 2c187642.d
Acq: 17 Nov 2021 8:32 pm

Tgt Ion: 96 Resp: 21495

Ion	Ratio	Lower	Upper
96	100		
61	98.7	96.8	156.8
98	64.3	33.7	93.7

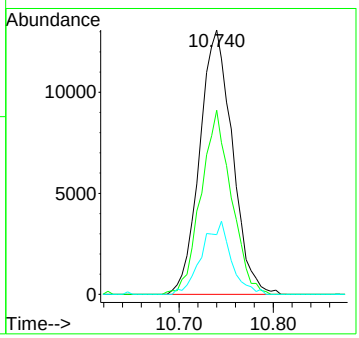


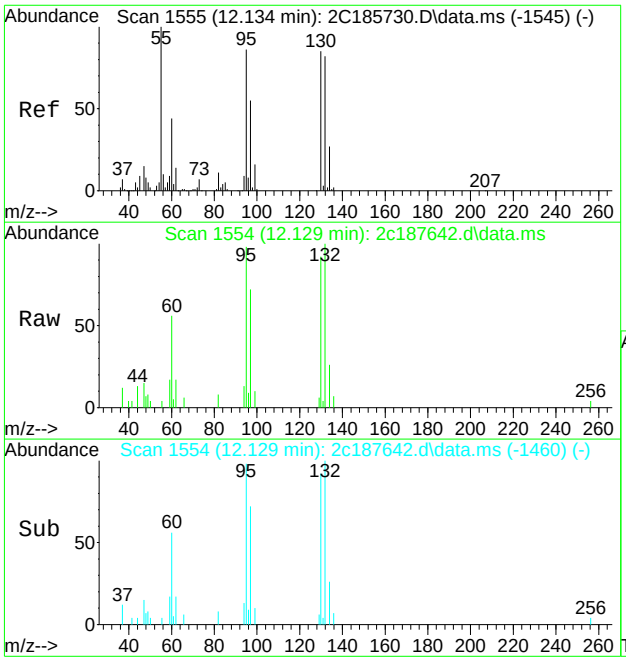


#40
chloroform
Concen: 7.47 ug/L
RT: 10.740 min Scan# 1289
Delta R.T. -0.005 min
Lab File: 2c187642.d
Acq: 17 Nov 2021 8:32 pm

Tgt Ion: 83 Resp: 31544

Ion	Ratio	Lower	Upper
83	100		
85	69.6	35.4	95.4
47	22.6	0.0	55.8

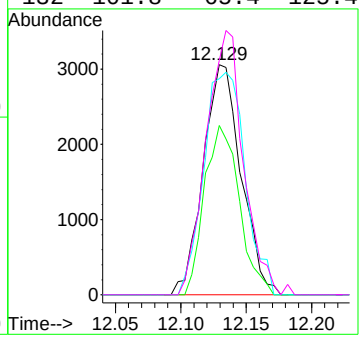


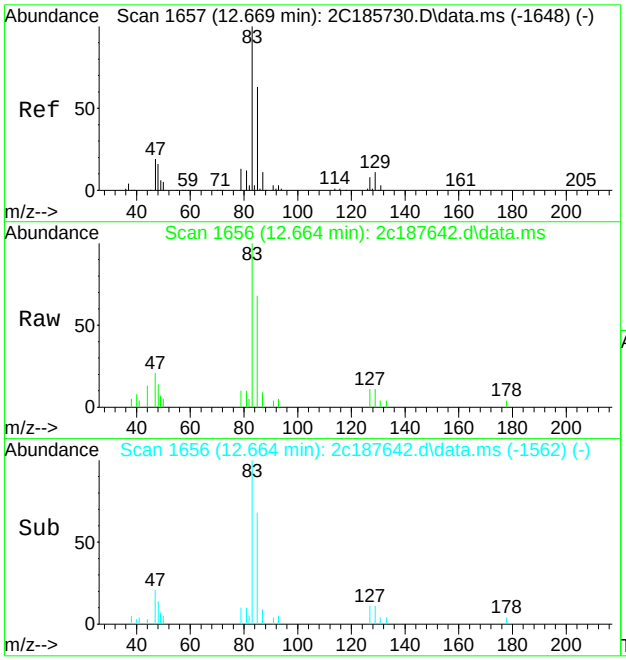


#60
trichloroethene
Concen: 2.55 ug/L
RT: 12.129 min Scan# 1554
Delta R.T. -0.005 min
Lab File: 2c187642.d
Acq: 17 Nov 2021 8:32 pm

Tgt Ion: 95 Resp: 6187

Ion	Ratio	Lower	Upper
95	100		
97	73.5	33.2	93.2
130	93.9	68.6	128.6
132	101.8	65.4	125.4

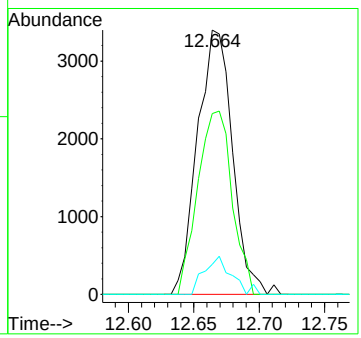


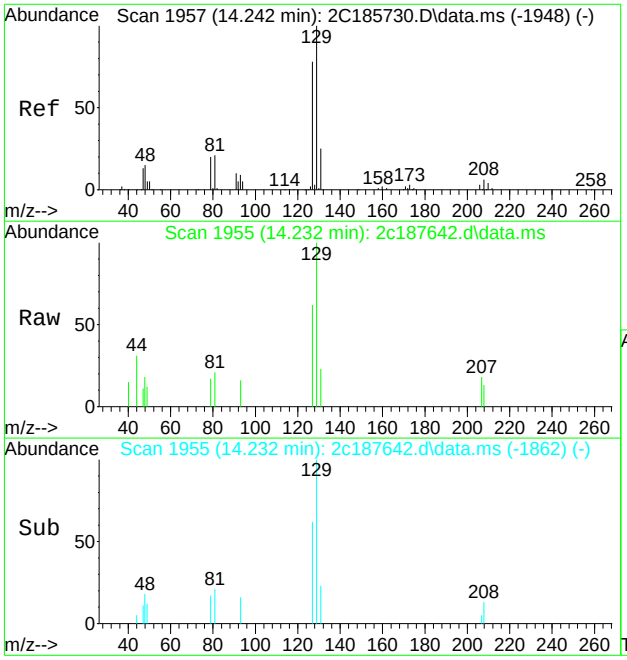


#67
bromodichloromethane
Concen: 1.93 ug/L
RT: 12.664 min Scan# 1656
Delta R.T. -0.005 min
Lab File: 2c187642.d
Acq: 17 Nov 2021 8:32 pm

Tgt Ion: 83 Resp: 6336

Ion	Ratio	Lower	Upper
83	100		
85	68.4	32.7	92.7
127	11.4	0.0	38.0

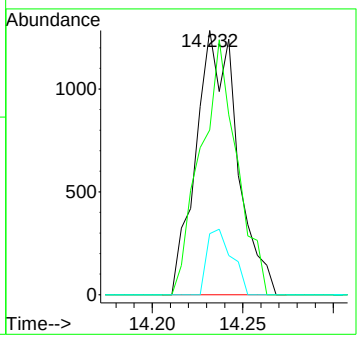




#82
dibromochloromethane
Concen: 0.53 ug/L
RT: 14.232 min Scan# 1955
Delta R.T. -0.011 min
Lab File: 2c187642.d
Acq: 17 Nov 2021 8:32 pm

Tgt Ion:129 Resp: 2022

Ion	Ratio	Lower	Upper
129	100		
127	62.3	47.6	107.6
131	23.1	0.0	54.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187643.d
Acq On : 17 Nov 2021 9:02 pm
Operator : thienn
Sample : JD35270-8 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:51:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

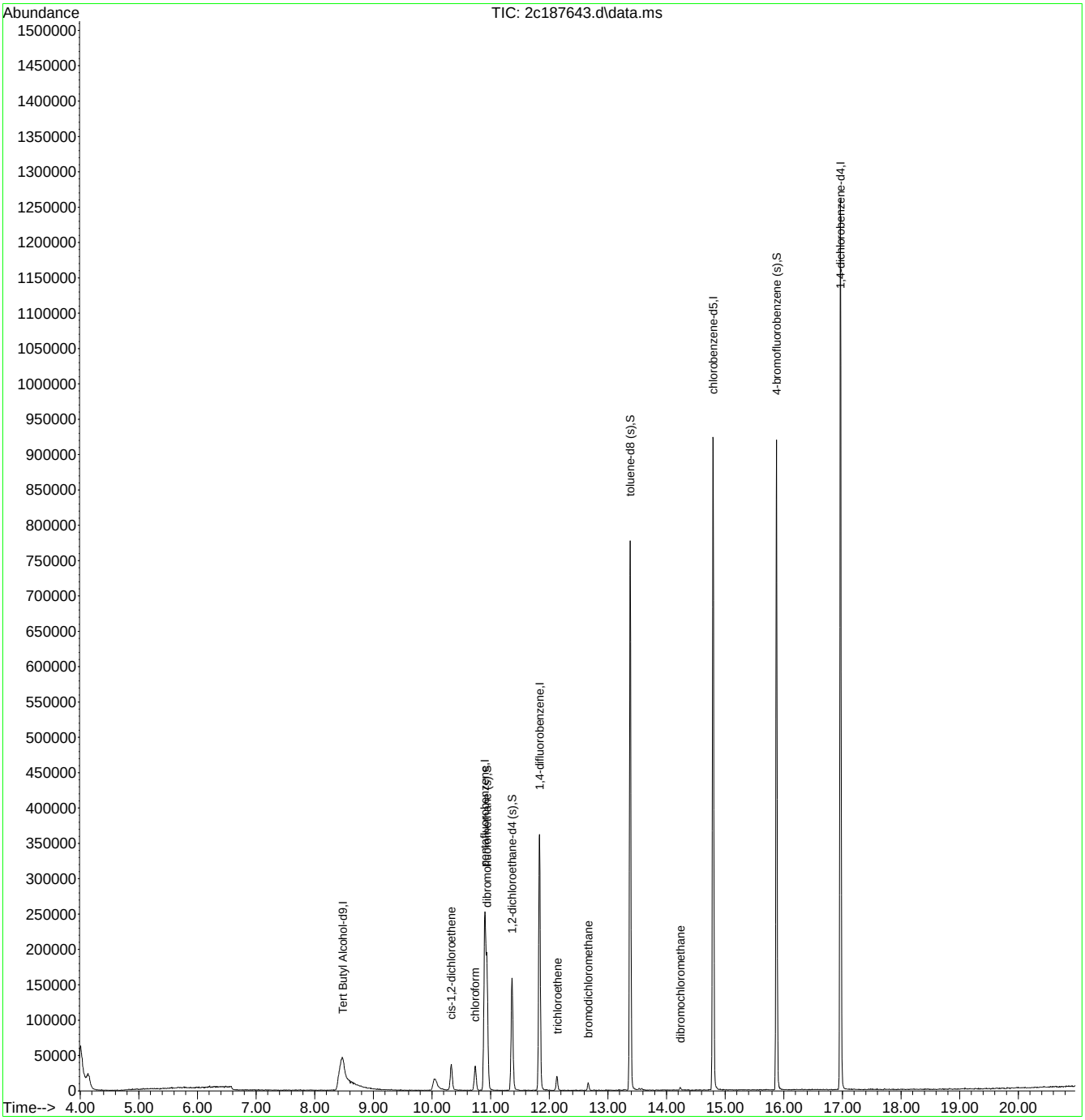
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.480	65	258730	500.00	ug/L	-0.01
5) pentafluorobenzene	10.902	168	209538	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	330532	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	474561	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	288863	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.934	113	116393	52.91	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.82%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	129623	47.12	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.24%			
73) toluene-d8 (s)	13.382	98	497062	42.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 84.66%			
96) 4-bromofluorobenzene (s)	15.878	95	243754	53.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.98%			
Target Compounds						Qvalue
36) cis-1,2-dichloroethene	10.331	96	21364	7.68	ug/L	92
40) chloroform	10.735	83	32029	7.42	ug/L	93
60) trichloroethene	12.140	95	7003	2.85	ug/L	94
67) bromodichloromethane	12.664	83	6881	2.07	ug/L	94
82) dibromochloromethane	14.237	129	1998	0.51	ug/L	97

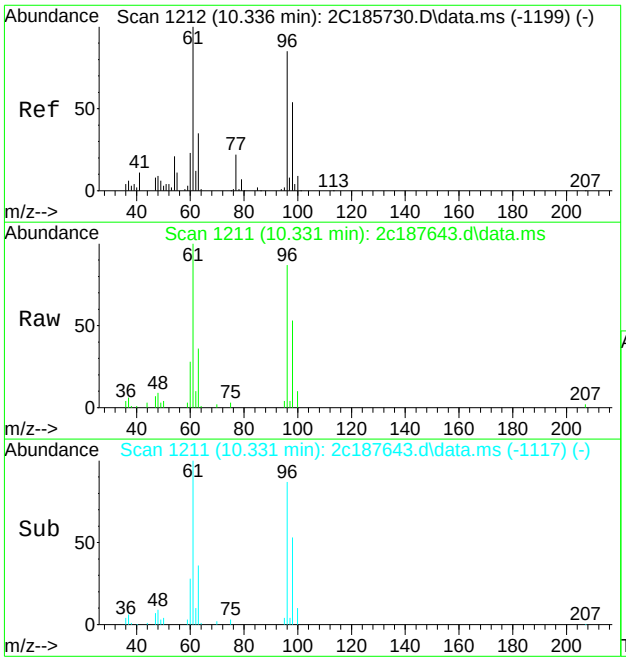
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187643.d
Acq On : 17 Nov 2021 9:02 pm
Operator : thienn
Sample : JD35270-8 Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:51:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

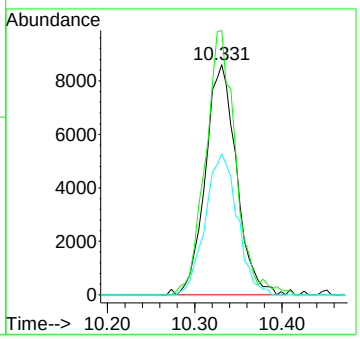


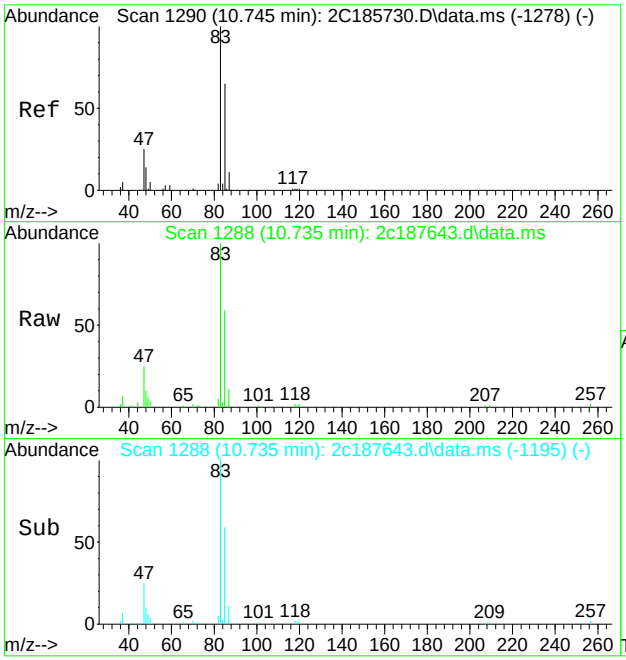


#36
cis-1,2-dichloroethene
Concen: 7.68 ug/L
RT: 10.331 min Scan# 1211
Delta R.T. -0.005 min
Lab File: 2c187643.d
Acq: 17 Nov 2021 9:02 pm

Tgt Ion: 96 Resp: 21364

Ion	Ratio	Lower	Upper
96	100		
61	114.9	96.8	156.8
98	61.3	33.7	93.7

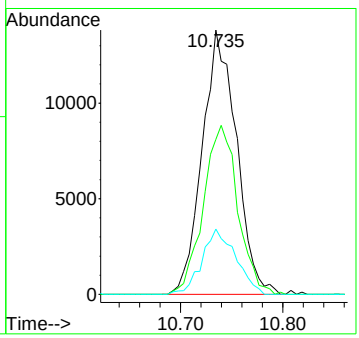


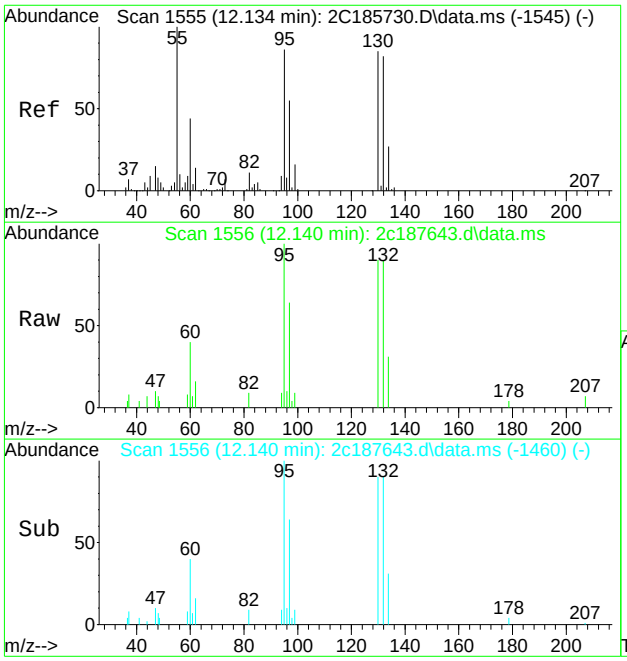


#40
chloroform
Concen: 7.42 ug/L
RT: 10.735 min Scan# 1288
Delta R.T. -0.010 min
Lab File: 2c187643.d
Acq: 17 Nov 2021 9:02 pm

Tgt Ion: 83 Resp: 32029

Ion	Ratio	Lower	Upper
83	100		
85	58.6	35.4	95.4
47	24.7	0.0	55.8

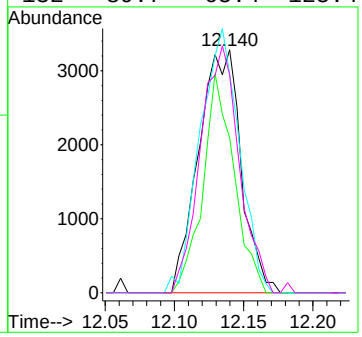


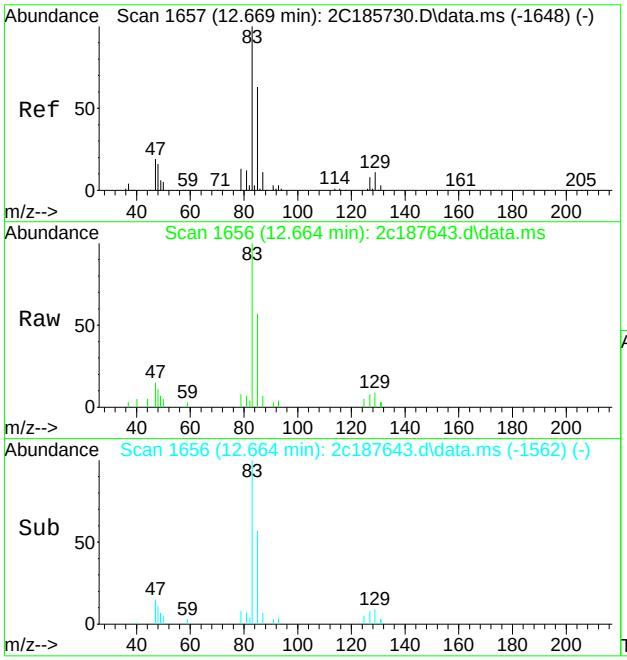


#60
trichloroethene
Concen: 2.85 ug/L
RT: 12.140 min Scan# 1556
Delta R.T. 0.005 min
Lab File: 2c187643.d
Acq: 17 Nov 2021 9:02 pm

Tgt Ion: 95 Resp: 7003

Ion	Ratio	Lower	Upper
95	100		
97	63.8	33.2	93.2
130	90.0	68.6	128.6
132	89.7	65.4	125.4

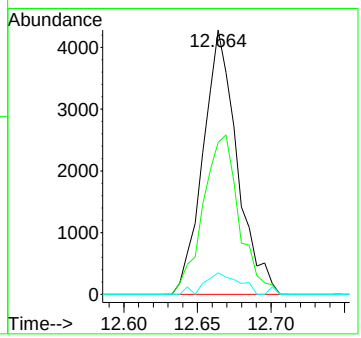


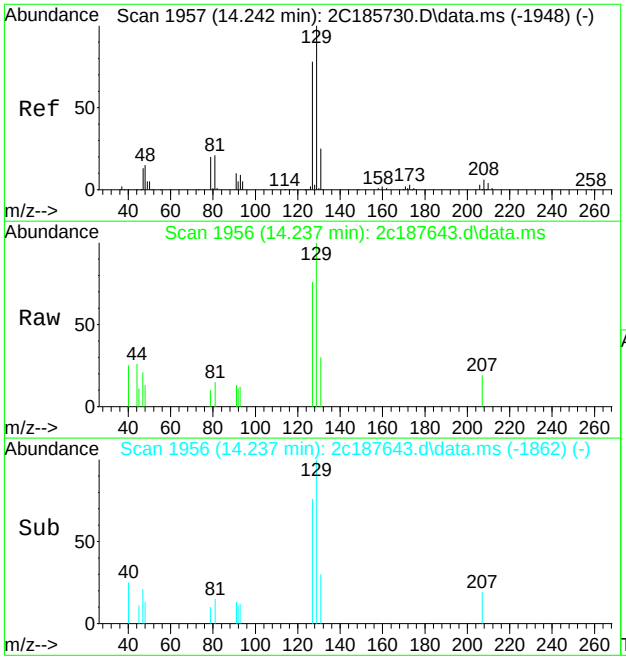


#67
bromodichloromethane
Concen: 2.07 ug/L
RT: 12.664 min Scan# 1656
Delta R.T. -0.005 min
Lab File: 2c187643.d
Acq: 17 Nov 2021 9:02 pm

Tgt Ion: 83 Resp: 6881

Ion	Ratio	Lower	Upper
83	100		
85	57.5	32.7	92.7
127	8.2	0.0	38.0

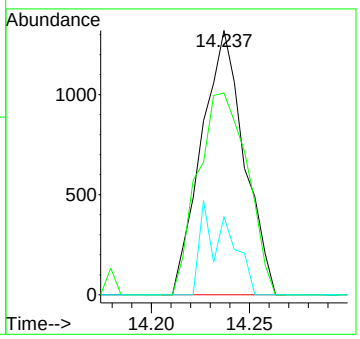




#82
dibromochloromethane
Concen: 0.51 ug/L
RT: 14.237 min Scan# 1956
Delta R.T. -0.005 min
Lab File: 2c187643.d
Acq: 17 Nov 2021 9:02 pm

Tgt Ion:129 Resp: 1998

Ion	Ratio	Lower	Upper
129	100		
127	76.3	47.6	107.6
131	29.6	0.0	54.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187687.d
Acq On : 18 Nov 2021 7:37 pm
Operator : thienn
Sample : jd35270-9 Inst : GCMS2C
Misc : MS55061,V2C8354,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:09:44 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

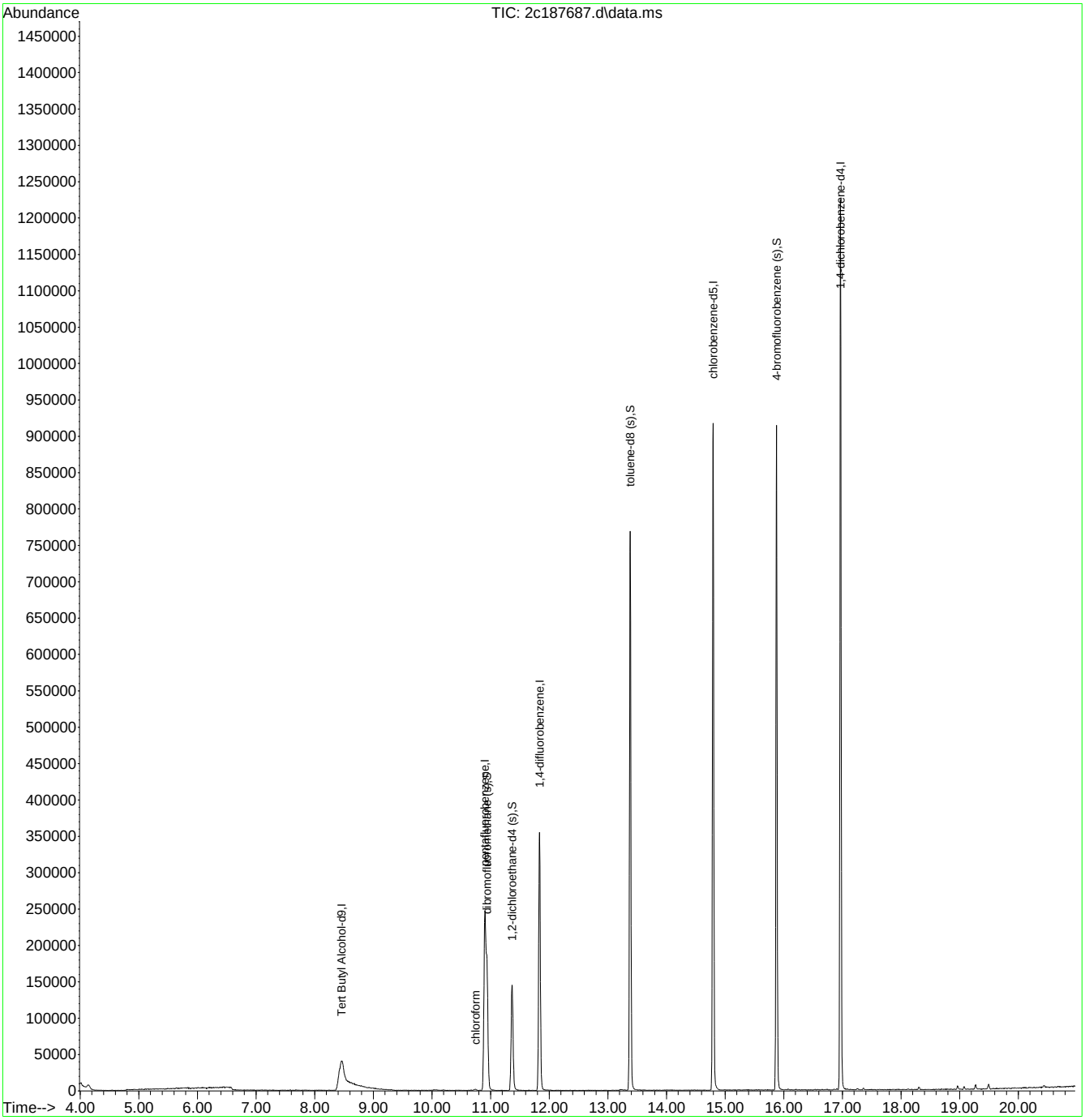
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.459	65	232341	500.00	ug/L	-0.03
5) pentafluorobenzene	10.902	168	210309	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	330097	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	481908	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	290635	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	116041	52.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.12%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	124183	45.20	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.40%			
73) toluene-d8 (s)	13.382	98	501215	42.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 84.06%			
96) 4-bromofluorobenzene (s)	15.878	95	247678	54.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.04%			
Target Compounds						Qvalue
40) chloroform	10.740	83	1843	0.43	ug/L	89

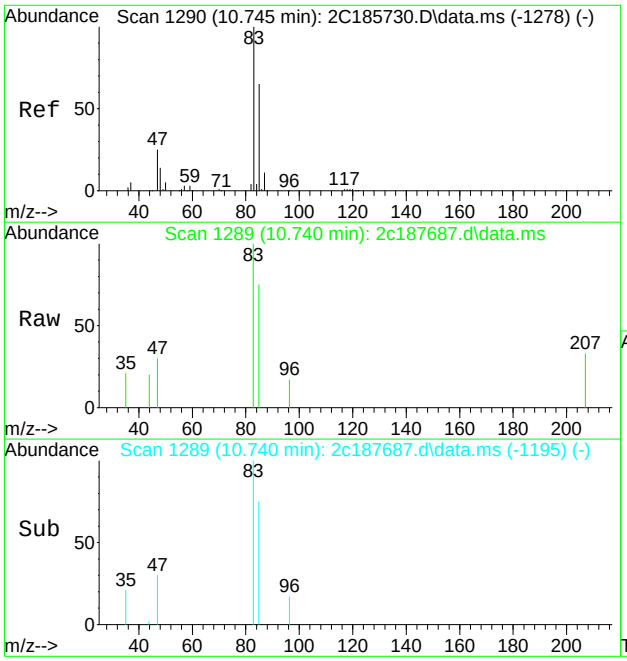
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187687.d
Acq On : 18 Nov 2021 7:37 pm
Operator : thienn
Sample : jd35270-9 Inst : GCMS2C
Misc : MS55061,V2C8354,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:09:44 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

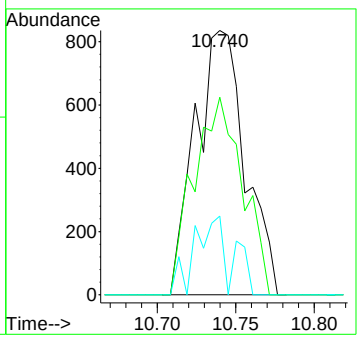




#40
chloroform
Concen: 0.43 ug/L
RT: 10.740 min Scan# 1289
Delta R.T. -0.005 min
Lab File: 2c187687.d
Acq: 18 Nov 2021 7:37 pm

Tgt Ion: 83 Resp: 1843

Ion	Ratio	Lower	Upper
83	100		
85	74.8	35.4	95.4
47	29.8	0.0	55.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187625.d
Acq On : 17 Nov 2021 12:01 pm
Operator : thienn
Sample : mb Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:01:30 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

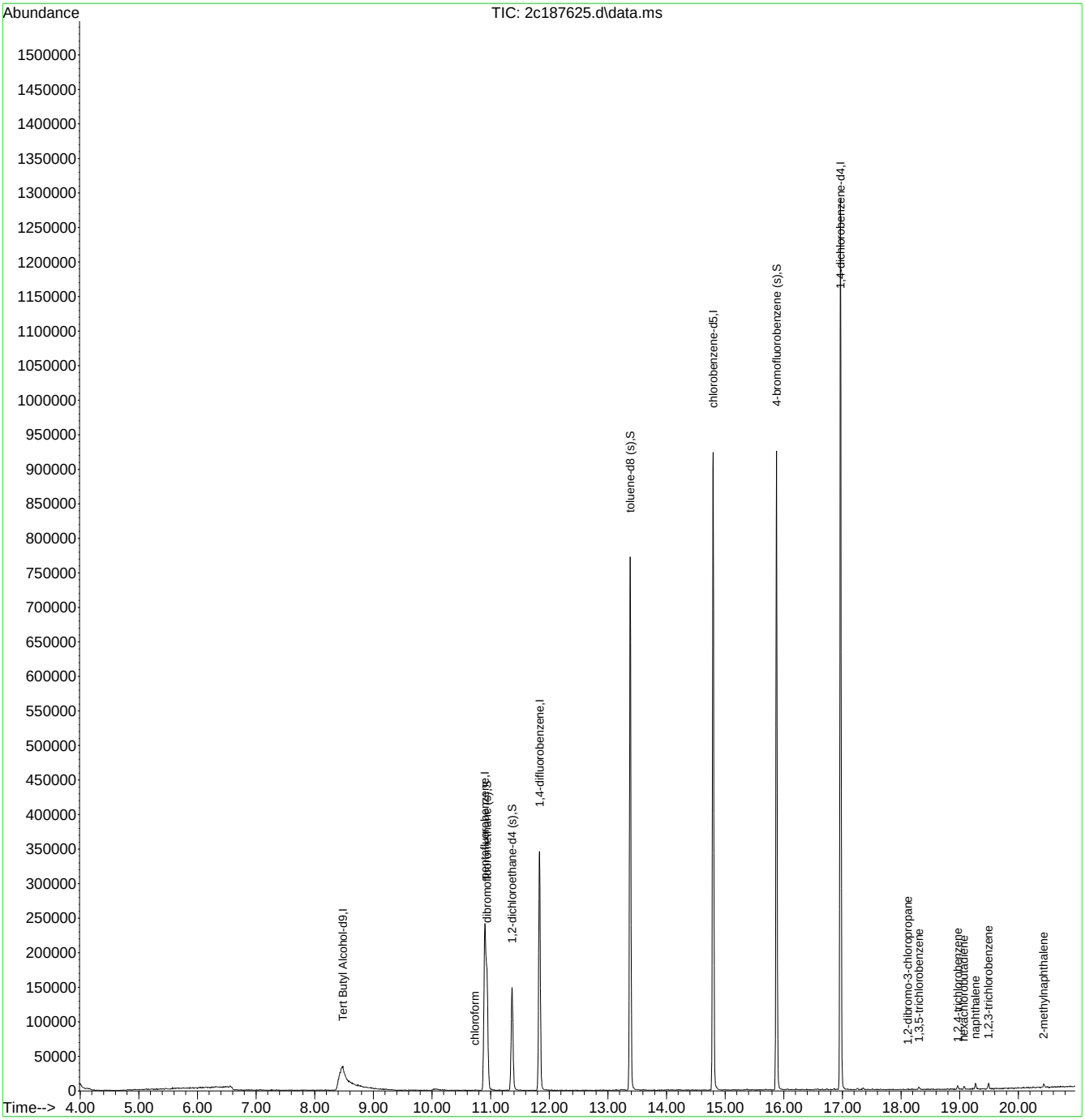
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.480	65	224543	500.00	ug/L	-0.01
5) pentafluorobenzene	10.902	168	198972	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	315937	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	461607	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	290507	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	112593	53.90	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.80%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	121702	46.28	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.56%			
73) toluene-d8 (s)	13.382	98	491736	43.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.10%			
96) 4-bromofluorobenzene (s)	15.878	95	246103	54.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.40%			
Target Compounds						Qvalue
40) chloroform	10.729	83	444	0.11	ug/L #	26
114) 1,2-dibromo-3-chloropr...	18.117	75	300	0.16	ug/L #	61
115) 1,3,5-trichlorobenzene	18.305	180	1323	0.16	ug/L	86
116) 1,2,4-trichlorobenzene	18.971	180	1796	0.23	ug/L	79
117) hexachlorobutadiene	19.071	225	968	0.26	ug/L	88
118) naphthalene	19.270	128	6858	0.31	ug/L	94
119) 1,2,3-trichlorobenzene	19.490	180	2842	0.41	ug/L	78
121) 2-methylnaphthalene	20.434	142	2240	0.25	ug/L #	76

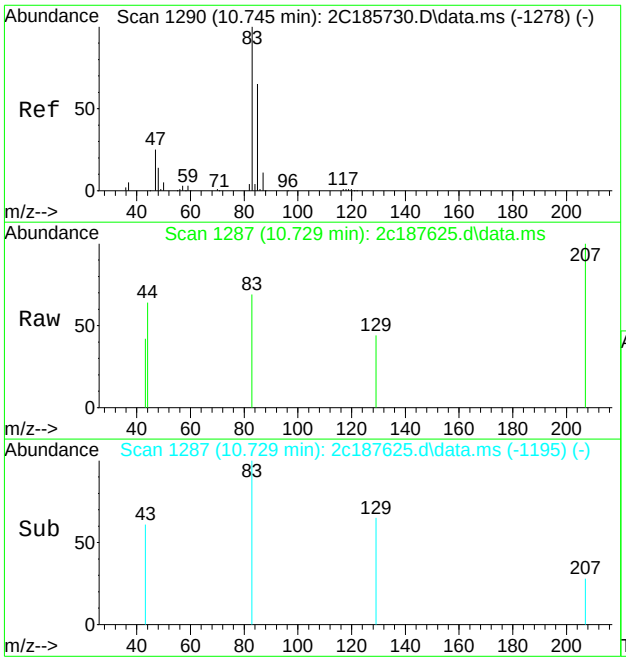
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187625.d
Acq On : 17 Nov 2021 12:01 pm
Operator : thienn
Sample : mb Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:01:30 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

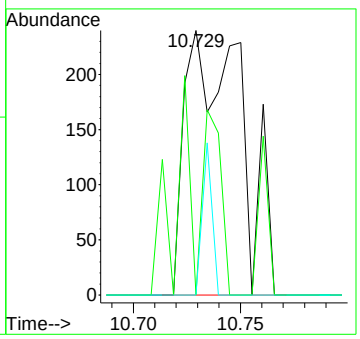


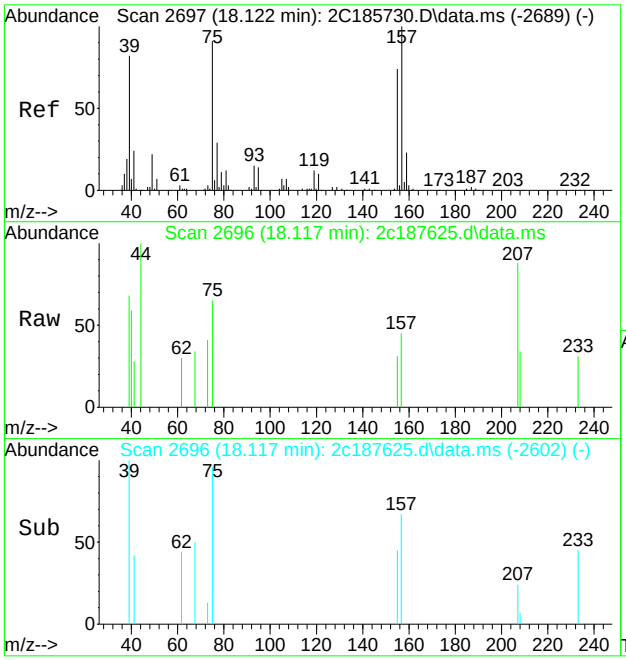


#40
chloroform
Concen: 0.11 ug/L
RT: 10.729 min Scan# 1287
Delta R.T. -0.016 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion: 83 Resp: 444

Ion	Ratio	Lower	Upper
83	100		
85	0.0	35.4	95.4#
47	0.0	0.0	55.8

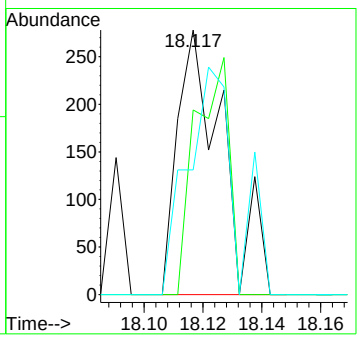


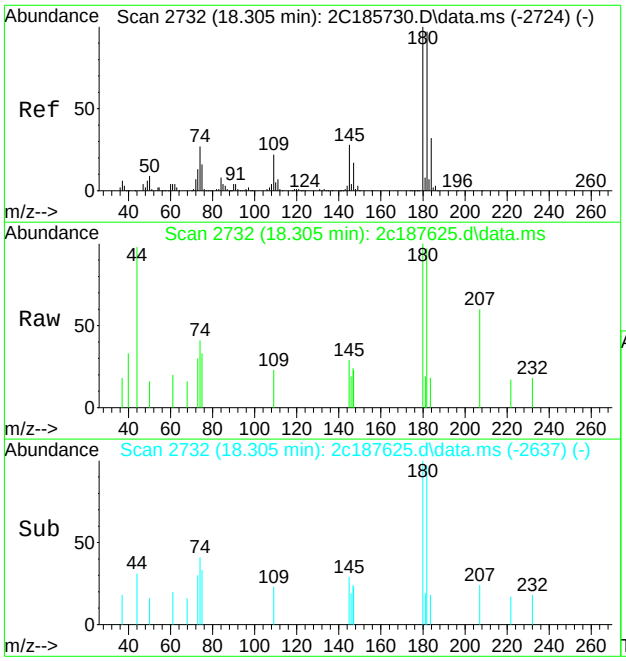


#114
1,2-dibromo-3-chloropropane
Concen: 0.16 ug/L
RT: 18.117 min Scan# 2696
Delta R.T. -0.005 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion: 75 Resp: 300

Ion	Ratio	Lower	Upper
75	100		
157	69.8	80.4	140.4#
155	47.1	51.8	111.8#

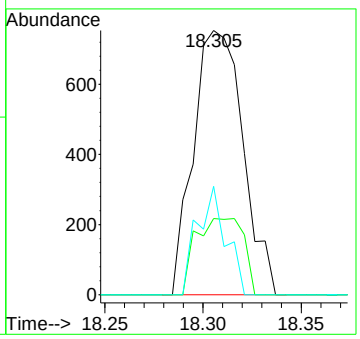


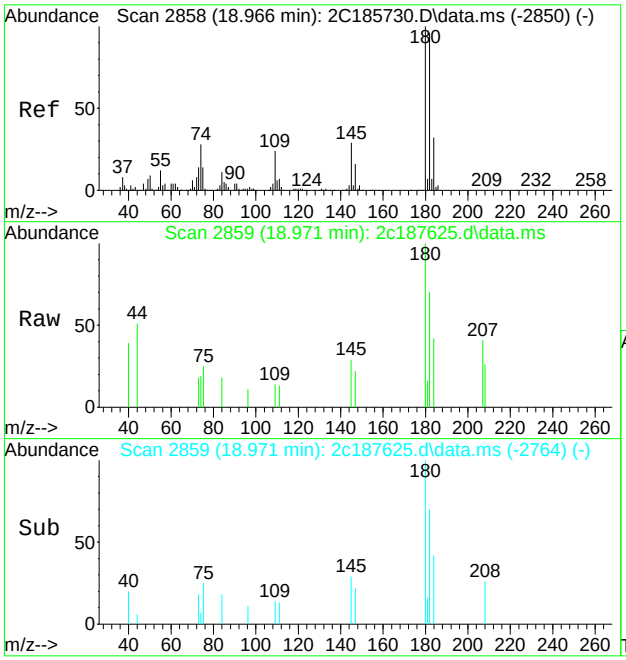


#115
1,3,5-trichlorobenzene
Concen: 0.16 ug/L
RT: 18.305 min Scan# 2732
Delta R.T. -0.000 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion:180 Resp: 1323

Ion	Ratio	Lower	Upper
180	100		
145	28.8	7.8	47.8
74	41.0	7.2	47.2

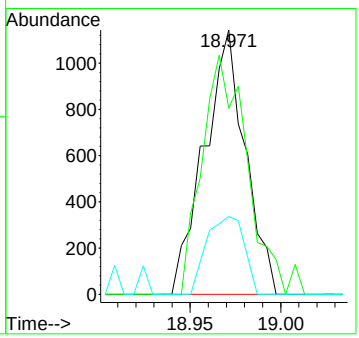


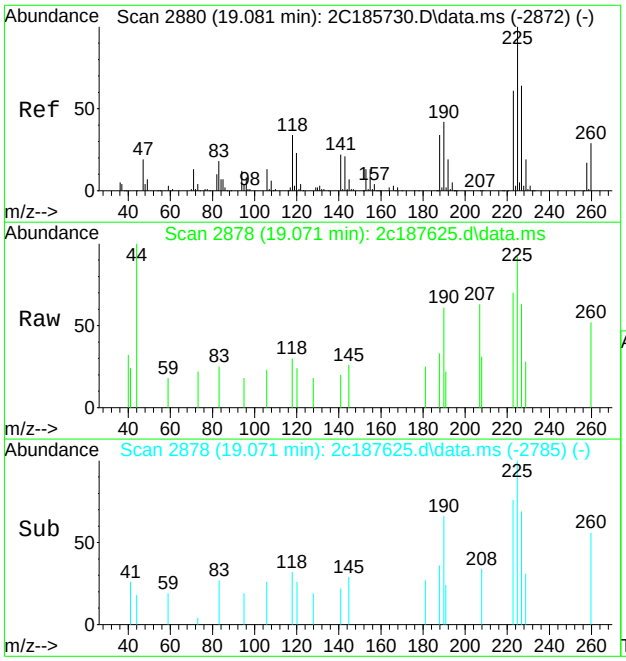


#116
1,2,4-trichlorobenzene
Concen: 0.23 ug/L
RT: 18.971 min Scan# 2859
Delta R.T. -0.000 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion:180 Resp: 1796

Ion	Ratio	Lower	Upper
180	100		
182	70.4	66.4	126.4
145	29.5	0.0	58.7

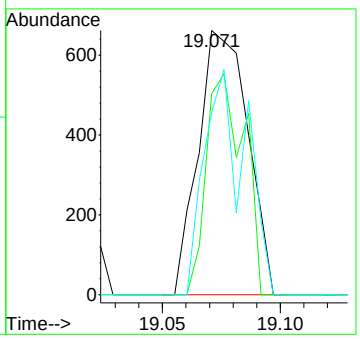


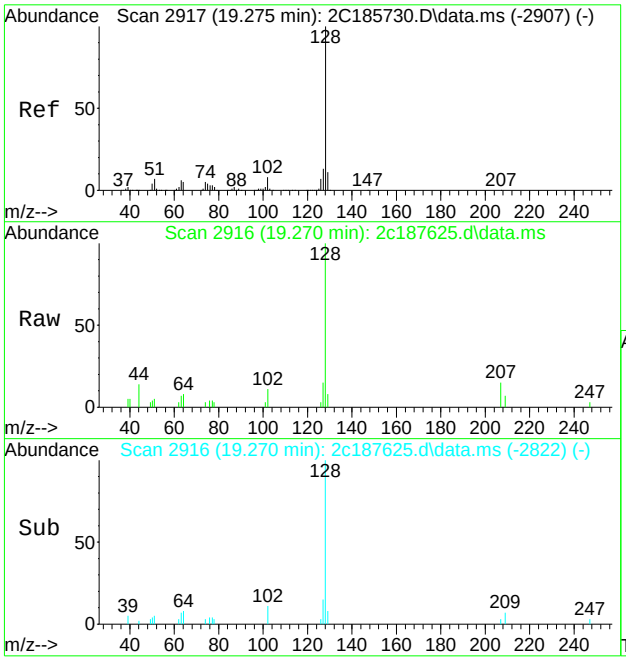


#117
hexachlorobutadiene
Concen: 0.26 ug/L
RT: 19.071 min Scan# 2878
Delta R.T. -0.011 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion:225 Resp: 968

Ion	Ratio	Lower	Upper
225	100		
223	76.1	31.2	91.2
227	68.9	34.4	94.4

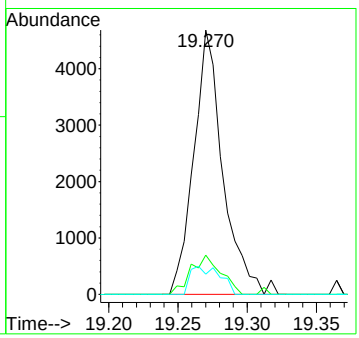


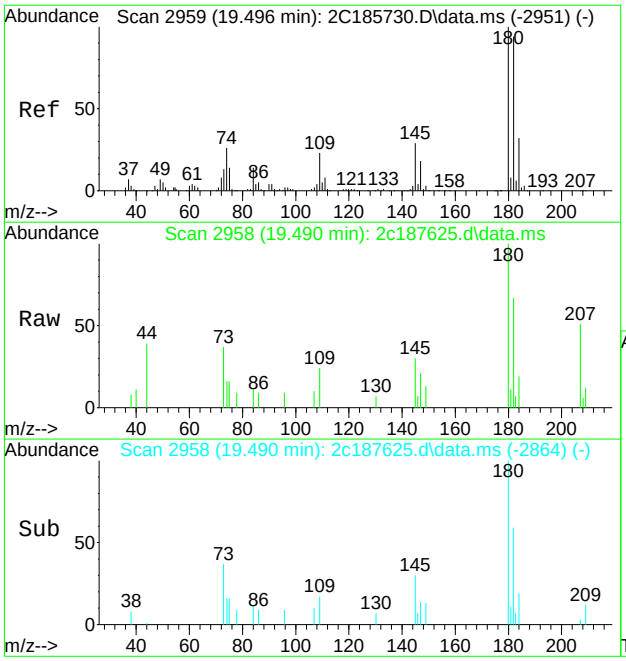


#118
naphthalene
Concen: 0.31 ug/L
RT: 19.270 min Scan# 2916
Delta R.T. -0.005 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion:128 Resp: 6858

Ion	Ratio	Lower	Upper
128	100		
127	14.8	0.0	42.9
129	7.6	0.0	40.8

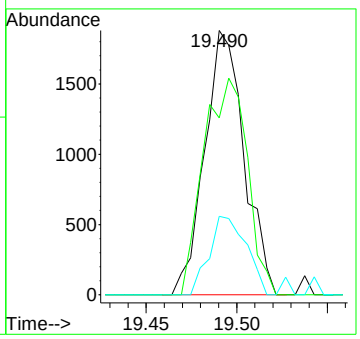


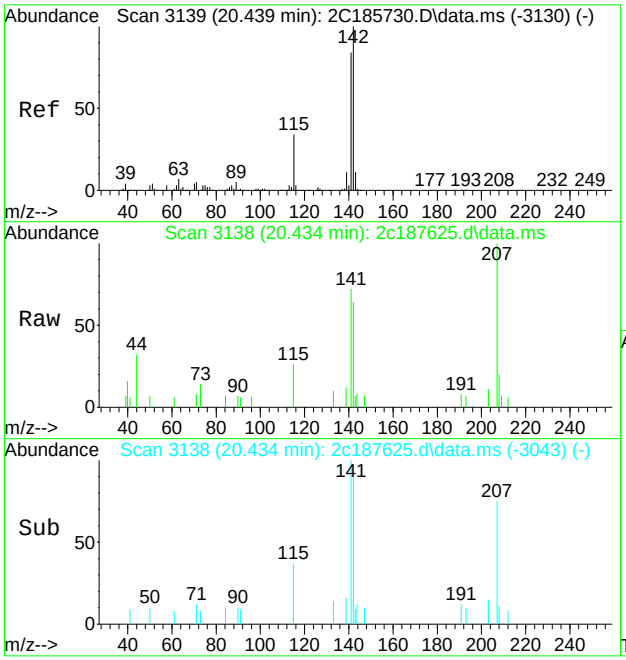


#119
1,2,3-trichlorobenzene
Concen: 0.41 ug/L
RT: 19.490 min Scan# 2958
Delta R.T. -0.005 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion:180 Resp: 2842

Ion	Ratio	Lower	Upper
180	100		
182	66.9	64.0	124.0
145	29.7	0.0	58.8

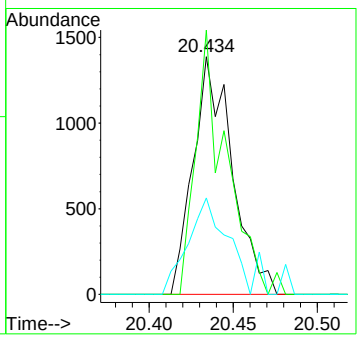




#121
2-methylnaphthalene
Concen: 0.25 ug/L
RT: 20.434 min Scan# 3138
Delta R.T. -0.000 min
Lab File: 2c187625.d
Acq: 17 Nov 2021 12:01 pm

Tgt Ion:142 Resp: 2240

Ion	Ratio	Lower	Upper
142	100		
141	111.2	64.4	104.4#
115	40.6	4.0	64.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187675.d
Acq On : 18 Nov 2021 1:47 pm
Operator : thienn
Sample : mb Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:16:34 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

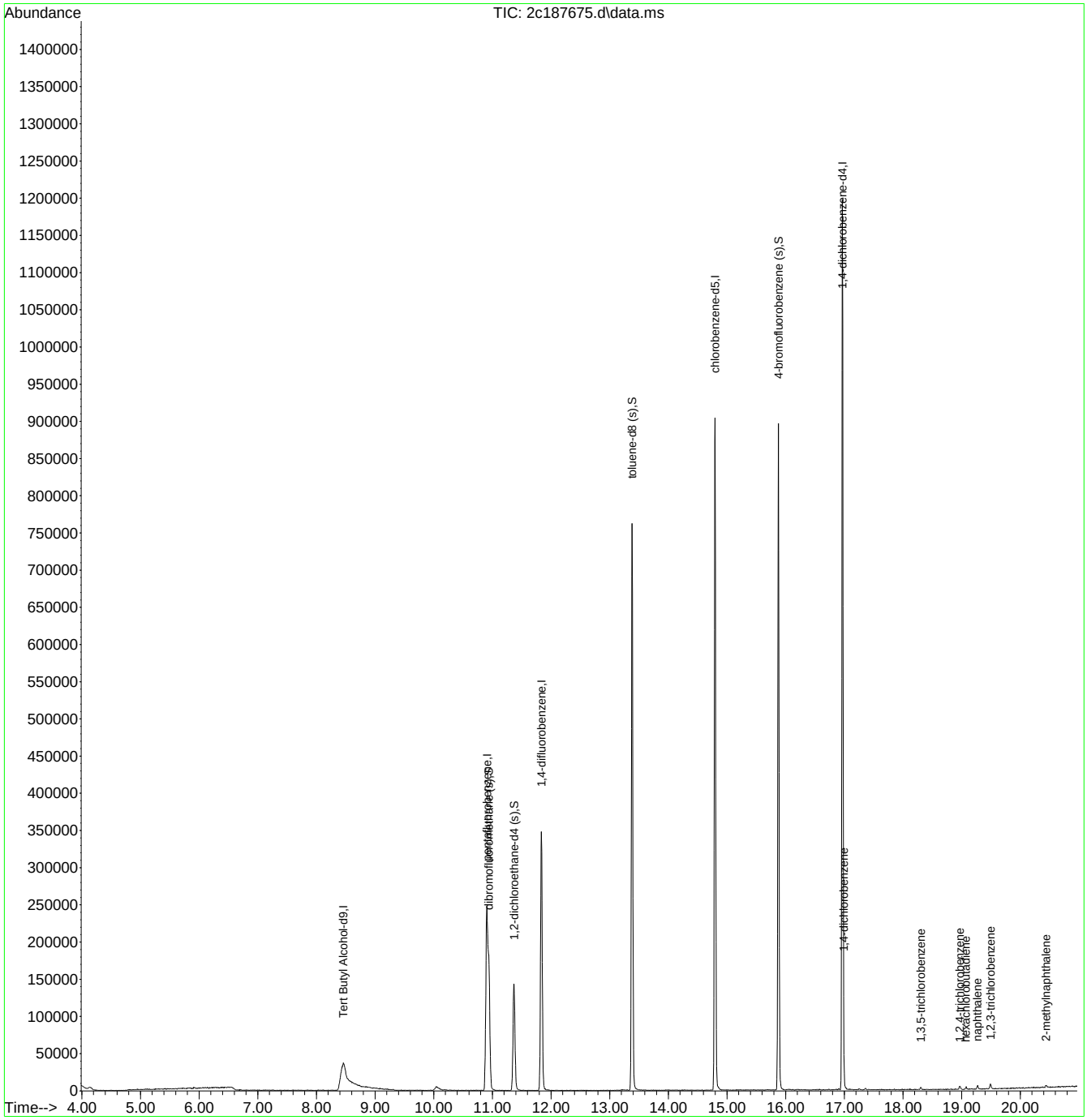
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.459	65	216668	500.00	ug/L	-0.03
5) pentafluorobenzene	10.907	168	211045	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	328086	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	476536	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	279387	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	116745	52.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.38%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	122025	44.69	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.38%			
73) toluene-d8 (s)	13.382	98	492828	41.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 83.58%			
96) 4-bromofluorobenzene (s)	15.878	95	240675	55.12	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.24%			
Target Compounds						Qvalue
111) 1,4-dichlorobenzene	16.989	146	1175	0.13	ug/L #	15
115) 1,3,5-trichlorobenzene	18.305	180	1217	0.15	ug/L	91
116) 1,2,4-trichlorobenzene	18.966	180	1855	0.25	ug/L	93
117) hexachlorobutadiene	19.071	225	789	0.22	ug/L	78
118) naphthalene	19.270	128	4467	0.21	ug/L	97
119) 1,2,3-trichlorobenzene	19.496	180	2390	0.36	ug/L	84
121) 2-methylnaphthalene	20.439	142	1245	0.14	ug/L	75

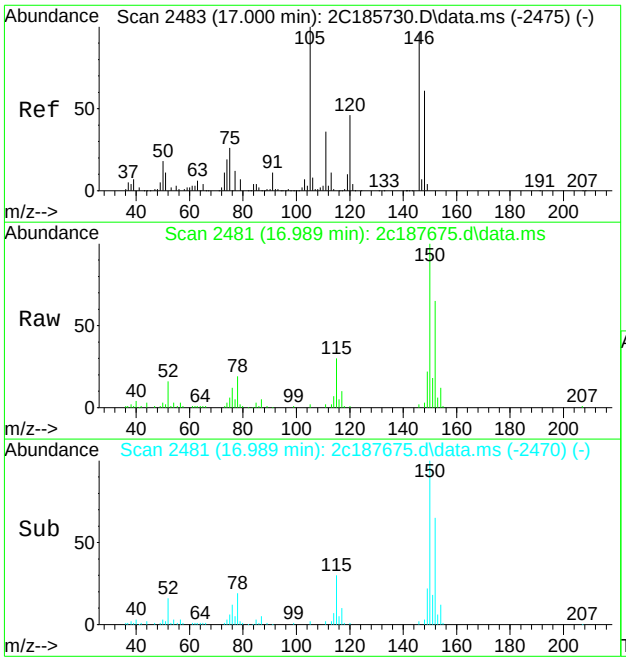
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187675.d
Acq On : 18 Nov 2021 1:47 pm
Operator : thienn
Sample : mb Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:16:34 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

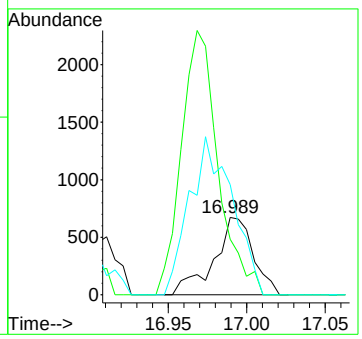


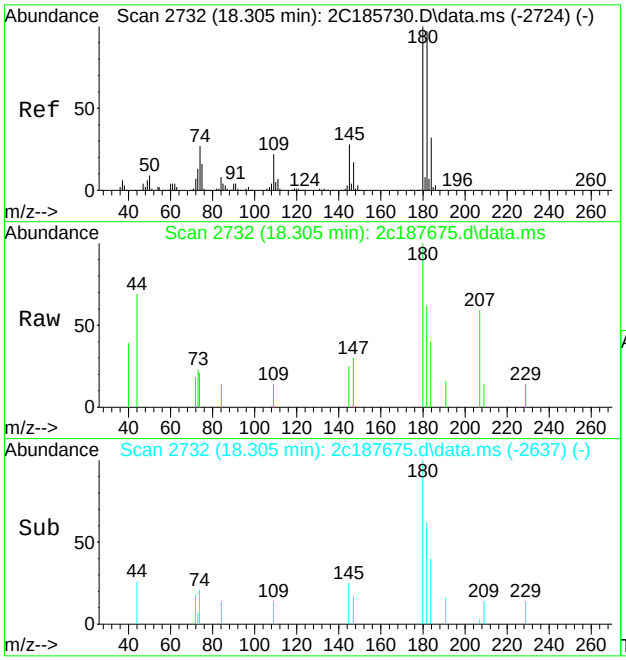


#111
1,4-dichlorobenzene
Concen: 0.13 ug/L
RT: 16.989 min Scan# 2481
Delta R.T. -0.011 min
Lab File: 2c187675.d
Acq: 18 Nov 2021 1:47 pm

Tgt Ion:146 Resp: 1175

Ion	Ratio	Lower	Upper
146	100		
111	71.7	7.6	67.6#
148	142.6	33.1	93.1#

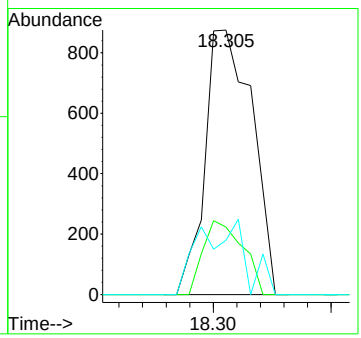


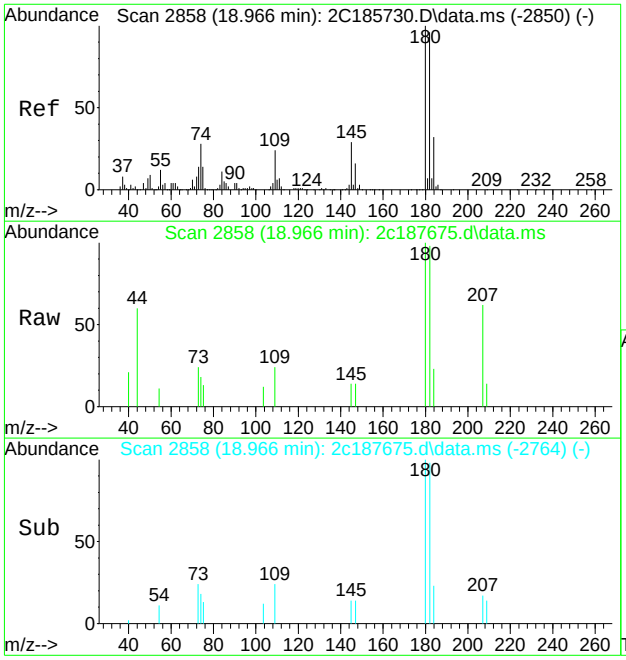


#115
1,3,5-trichlorobenzene
Concen: 0.15 ug/L
RT: 18.305 min Scan# 2732
Delta R.T. -0.000 min
Lab File: 2c187675.d
Acq: 18 Nov 2021 1:47 pm

Tgt Ion:180 Resp: 1217

Ion	Ratio	Lower	Upper
180	100		
145	25.5	7.8	47.8
74	20.5	7.2	47.2

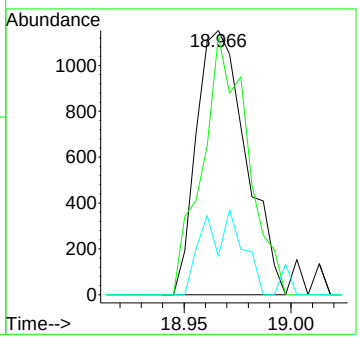


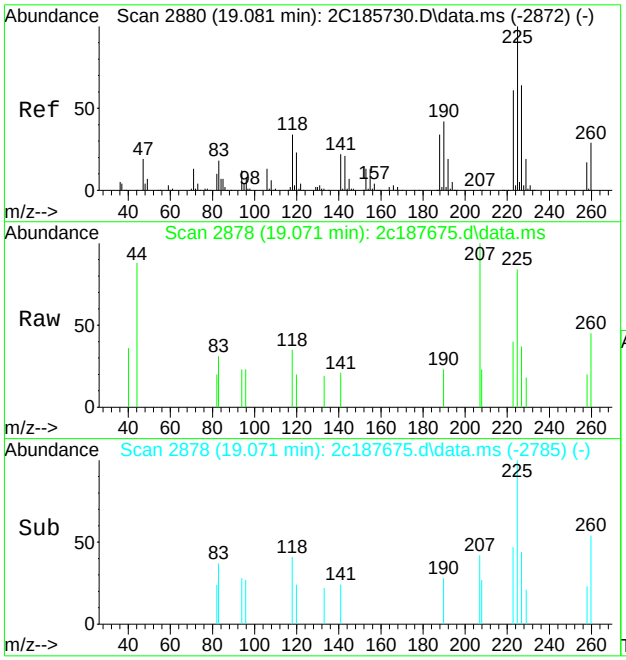


#116
1,2,4-trichlorobenzene
Concen: 0.25 ug/L
RT: 18.966 min Scan# 2858
Delta R.T. -0.005 min
Lab File: 2c187675.d
Acq: 18 Nov 2021 1:47 pm

Tgt Ion:180 Resp: 1855

Ion	Ratio	Lower	Upper
180	100		
182	97.8	66.4	126.4
145	14.5	0.0	58.7

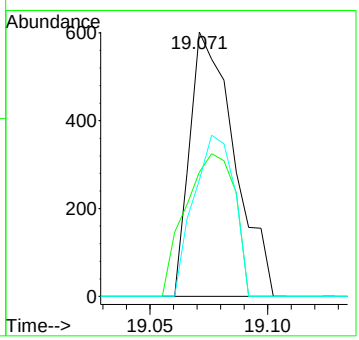


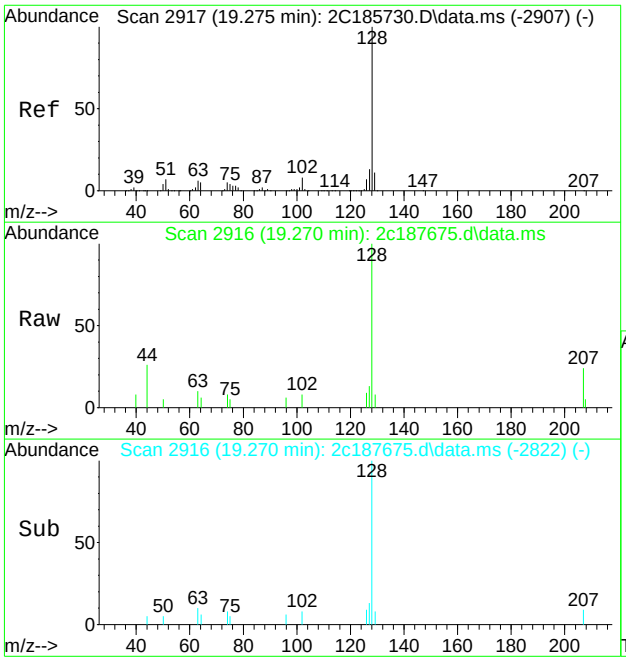


#117
hexachlorobutadiene
Concen: 0.22 ug/L
RT: 19.071 min Scan# 2878
Delta R.T. -0.011 min
Lab File: 2c187675.d
Acq: 18 Nov 2021 1:47 pm

Tgt Ion:225 Resp: 789

Ion	Ratio	Lower	Upper
225	100		
223	47.0	31.2	91.2
227	44.0	34.4	94.4

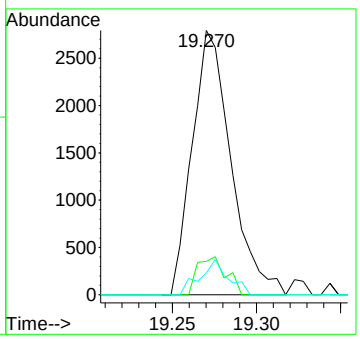


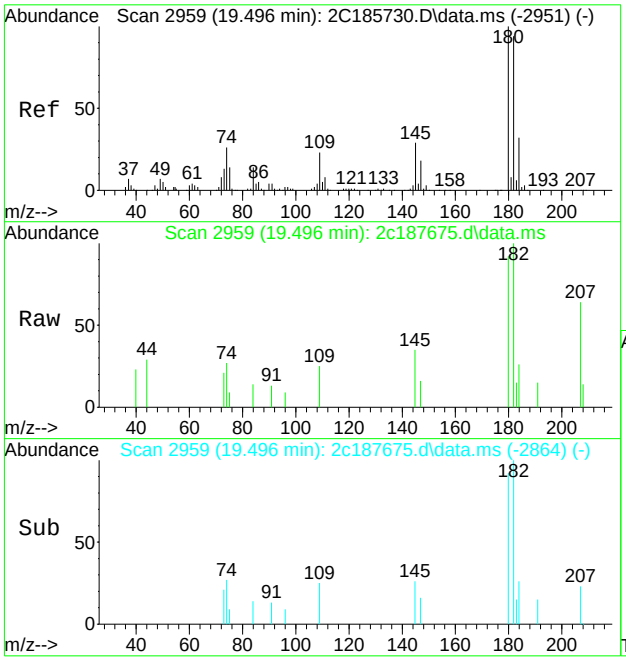


#118
naphthalene
Concen: 0.21 ug/L
RT: 19.270 min Scan# 2916
Delta R.T. -0.005 min
Lab File: 2c187675.d
Acq: 18 Nov 2021 1:47 pm

Tgt Ion:128 Resp: 4467

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.9
129	8.3	0.0	40.8

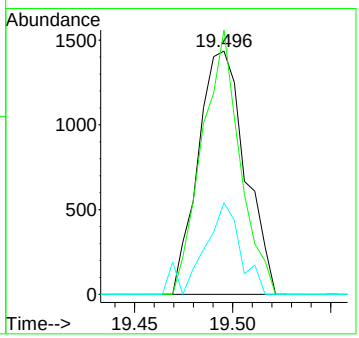


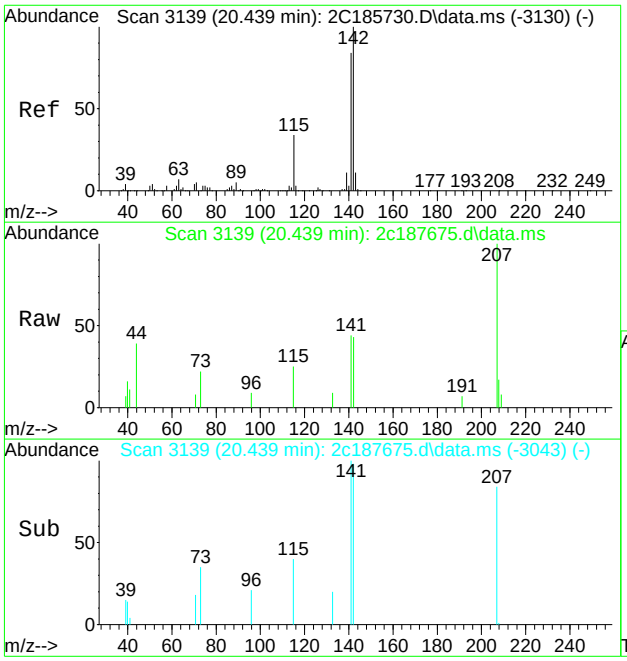


#119
1,2,3-trichlorobenzene
Concen: 0.36 ug/L
RT: 19.496 min Scan# 2959
Delta R.T. -0.000 min
Lab File: 2c187675.d
Acq: 18 Nov 2021 1:47 pm

Tgt Ion:180 Resp: 2390

Ion	Ratio	Lower	Upper
180	100		
182	108.7	64.0	124.0
145	37.7	0.0	58.8

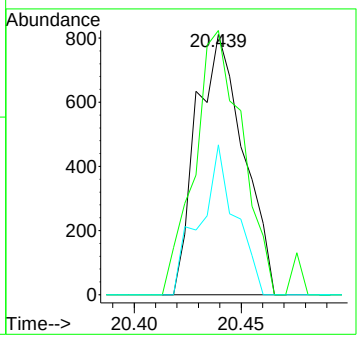




#121
2-methylnaphthalene
Concen: 0.14 ug/L
RT: 20.439 min Scan# 3139
Delta R.T. 0.005 min
Lab File: 2c187675.d
Acq: 18 Nov 2021 1:47 pm

Tgt Ion:142 Resp: 1245

Ion	Ratio	Lower	Upper
142	100		
141	101.6	64.4	104.4
115	57.6	4.0	64.0



Manual Integrations APPROVED (compounds with "m" flag)
Mei Chen
11/18/21 11:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187622.d
Acq On : 17 Nov 2021 10:18 am
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:08:13 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.454	65	236906	500.00	ug/L	-0.04
5) pentafluorobenzene	10.902	168	226670	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	375325	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	593794	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	355900	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	124327	52.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.50%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	143542	45.95	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.90%			
73) toluene-d8 (s)	13.382	98	633272	43.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.20%			
96) 4-bromofluorobenzene (s)	15.878	95	291857	52.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.94%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.585	59	122585	221.44	ug/L	92
4) 1,4-dioxane	12.454	88	79791	1873.00	ug/L	92
6) chlorodifluoromethane	4.584	51	113339	29.97	ug/L	95
7) dichlorodifluoromethane	4.558	85	209021	44.05	ug/L	97
8) chloromethane	5.020	50	204546	44.75	ug/L	95
9) vinyl chloride	5.282	62	225924	50.19	ug/L	98
10) 1,3-butadiene	5.334	54	193182	51.29	ug/L	95
11) bromomethane	6.021	94	296736	70.22	ug/L	97
12) chloroethane	6.199	64	211660	74.02	ug/L	95
13) trichlorofluoromethane	6.750	101	293004	52.16	ug/L	97
14) ethyl ether	7.175	74	68506	50.35	ug/L	88
15) acrolein	7.447	56	33544	49.82	ug/L	80
16) freon 113	7.694	151	110877	44.63	ug/L	98
17) 1,1-dichloroethene	7.662	96	114160	41.93	ug/L	85
18) acetone	7.699	58	78424	175.44	ug/L	91
19) iodomethane	7.956	142	235938	47.91	ug/L	99
20) acetonitrile	8.197	41	165737	339.04	ug/L	97
21) carbon disulfide	8.108	76	385762	44.45	ug/L	95
22) methylene chloride	8.485	84	140016	45.24	ug/L	89
23) methyl acetate	8.202	43	97865	35.41	ug/L	95
24) methyl tert butyl ether	8.884	73	401489	45.22	ug/L	97
25) trans-1,2-dichloroethene	8.910	96	122041	44.38	ug/L	95
26) hexane	9.298	56	61641	39.39	ug/L	95
27) di-isopropyl ether	9.539	45	323819	40.91	ug/L	94
28) 1,1-dichloroethane	9.555	63	192689	45.05	ug/L	98
29) chloroprene	9.660	53	136836	40.00	ug/L	92
30) acrylonitrile	8.826	53	72349	52.49	ug/L	96
31) vinyl acetate	9.487	86	23364	55.58	ug/L	97
32) ethyl tert-butyl ether	10.042	59	368687	46.83	ug/L	96
33) 2-butanone	10.268	72	81863	202.75	ug/L #	71
34) ethyl acetate	10.284	45	17424	40.31	ug/L #	65
35) 2,2-dichloropropane	10.362	77	205391	49.78	ug/L	98
36) cis-1,2-dichloroethene	10.326	96	131609	43.74	ug/L	94
37) propionitrile	10.362	54	247666	438.30	ug/L	93
38) bromochloromethane	10.645	128	73185	47.79	ug/L	84
39) tetrahydrofuran	10.661	71	22301	45.41	ug/L #	69
40) chloroform	10.740	83	223631	47.89	ug/L	98
41) t-butyl formate	10.782	59	97776	47.03	ug/L	97
43) methacrylonitrile	10.562	67	53588	44.93	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187622.d
Acq On : 17 Nov 2021 10:18 am
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:08:13 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	1,1,1-trichloroethane	11.002	97	225799	46.04	ug/L		97
45)	cyclohexane	11.112	84	221675	52.41	ug/L		91
46)	1,1-dichloropropene	11.170	75	157985	52.38	ug/L		98
47)	carbon tetrachloride	11.201	117	212546	51.71	ug/L		96
48)	isobutyl alcohol	11.164	42	40766m	318.56	ug/L		
51)	n-butyl alcohol	11.898	56	441849	2275.35	ug/L		98
52)	tert-amyl alcohol	11.327	55	54211	178.35	ug/L		94
53)	iso-octane	11.511	57	516953	68.37	ug/L		96
54)	benzene	11.421	78	491728	47.66	ug/L		97
55)	tert-amyl methyl ether	11.505	87	127875	51.08	ug/L		93
56)	heptane	11.673	57	71510	49.27	ug/L		94
57)	isopropyl acetate	11.343	87	36898	47.82	ug/L	#	68
58)	1,2-dichloroethane	11.458	62	185610	43.12	ug/L		95
59)	ethyl acrylate	12.124	55	200058	48.66	ug/L		99
60)	trichloroethene	12.129	95	146612	52.59	ug/L		98
61)	2-nitropropane	12.868	41	75897	48.21	ug/L	#	58
62)	2-chloroethyl vinyl ether	12.884	63	447984	280.76	ug/L		99
63)	methyl methacrylate	12.376	100	44428	55.27	ug/L	#	80
64)	1,2-dichloropropane	12.412	63	144141	54.08	ug/L		97
65)	dibromomethane	12.517	93	114371	54.56	ug/L		97
66)	methylcyclohexane	12.412	83	301206	54.09	ug/L		96
67)	bromodichloromethane	12.664	83	218551	57.94	ug/L		98
68)	epichlorohydrin	12.973	57	118712	277.00	ug/L		99
69)	cis-1,3-dichloropropene	13.094	75	253440	61.11	ug/L		93
70)	4-methyl-2-pentanone	13.194	58	442688	249.19	ug/L	#	84
71)	3-methyl-1-butanol	13.199	55	421648	1046.94	ug/L		93
74)	toluene	13.450	92	429452	42.01	ug/L		97
75)	ethyl methacrylate	13.613	69	250534	41.38	ug/L		95
76)	trans-1,3-dichloropropene	13.629	75	270121	43.02	ug/L		89
77)	1,1,2-trichloroethane	13.838	83	143628	41.00	ug/L		99
78)	2-hexanone	13.990	58	470787	171.46	ug/L	#	87
79)	tetrachloroethene	13.969	164	164411	42.26	ug/L		99
80)	1,3-dichloropropane	14.006	76	288721	44.34	ug/L		88
81)	butyl acetate	14.053	56	157127	39.44	ug/L		90
82)	dibromochloromethane	14.237	129	227029	46.60	ug/L		96
83)	1,2-dibromoethane	14.378	107	206165	44.93	ug/L		96
84)	n-butyl ether	14.772	57	780482	40.22	ug/L		93
85)	chlorobenzene	14.824	112	588709	48.19	ug/L		96
86)	1,1,1,2-tetrachloroethane	14.887	131	273563	48.67	ug/L		99
87)	ethylbenzene	14.877	91	996123	46.50	ug/L		97
88)	m,p-xylene	14.987	106	785058	98.99	ug/L		89
89)	o-xylene	15.364	106	442837	50.03	ug/L		93
90)	styrene	15.375	104	698966	49.34	ug/L		92
91)	butyl acrylate	15.196	55	443432	37.91	ug/L		96
92)	bromoform	15.595	173	228212	51.39	ug/L		100
93)	isopropylbenzene	15.684	105	1152295	49.45	ug/L		99
94)	cis-1,4-dichloro-2-butene	15.726	75	65910	28.18	ug/L	#	85
97)	bromobenzene	16.051	156	318866	55.40	ug/L		95
98)	1,1,2,2-tetrachloroethane	15.946	83	397166	57.58	ug/L		100
99)	trans-1,4-dichloro-2-b...	15.978	88	38266	33.02	ug/L		86
100)	1,2,3-trichloropropane	16.030	110	105779	51.45	ug/L		97
101)	n-propylbenzene	16.072	91	1312434	54.38	ug/L		96
102)	2-chlorotoluene	16.198	126	290040	57.71	ug/L		92
103)	4-chlorotoluene	16.303	91	775945	52.97	ug/L		96
104)	1,3,5-trimethylbenzene	16.214	105	1007697	54.14	ug/L		98
105)	tert-butylbenzene	16.533	119	835210	56.61	ug/L		91
106)	1,2,4-trimethylbenzene	16.581	105	1031502	56.47	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187622.d
Acq On : 17 Nov 2021 10:18 am
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:08:13 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

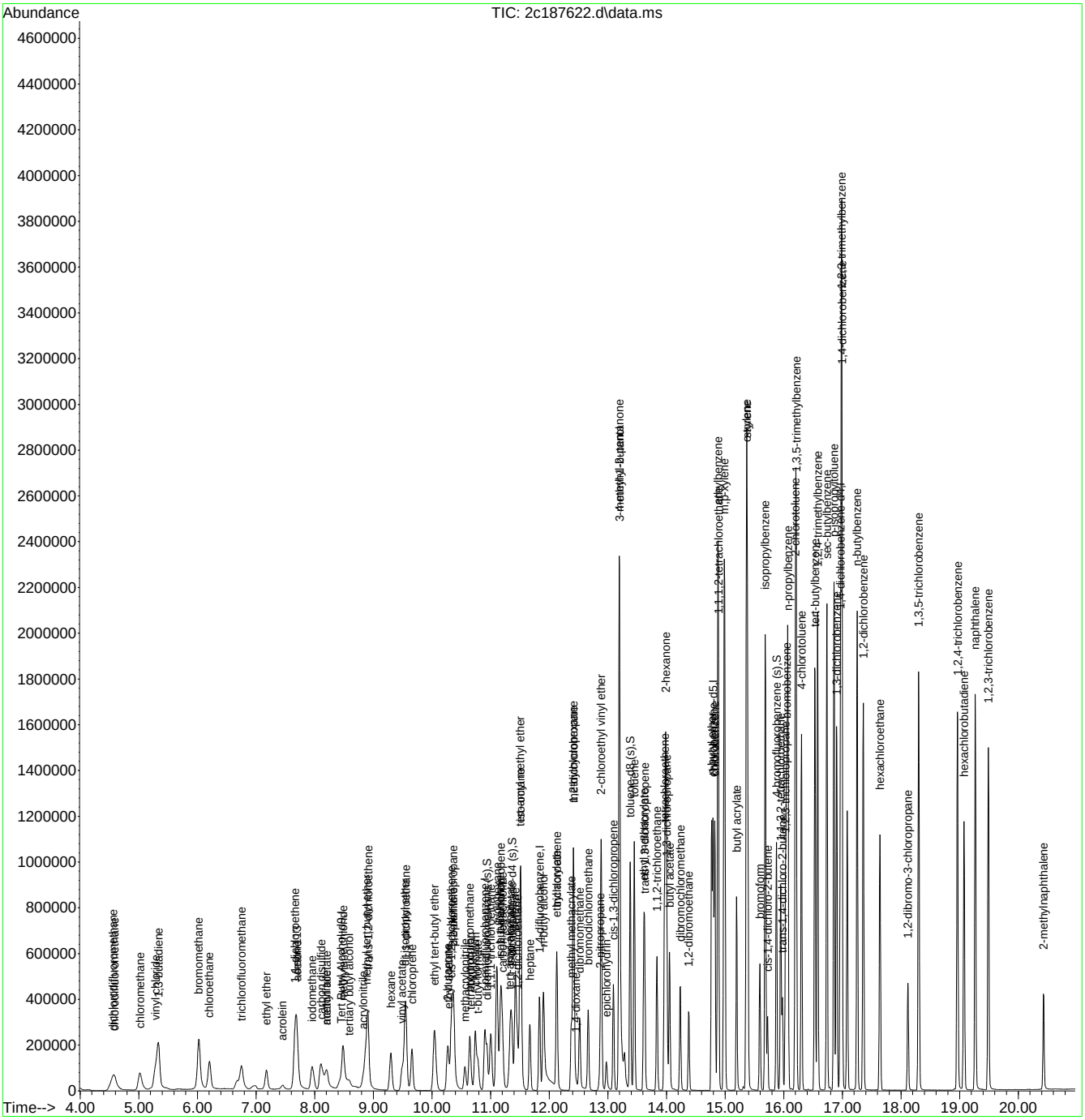
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) sec-butylbenzene	16.738	105	1339277	57.50	ug/L	99
108) 1,3-dichlorobenzene	16.906	146	621304	57.91	ug/L	98
109) p-isopropyltoluene	16.858	119	1148799	56.87	ug/L	96
110) 1,2,3-trimethylbenzene	16.984	105	1149105	54.48	ug/L	98
111) 1,4-dichlorobenzene	16.995	146	667029	58.30	ug/L	97
112) 1,2-dichlorobenzene	17.356	146	657719	56.64	ug/L	97
113) n-butylbenzene	17.252	92	558538	55.41	ug/L	100
114) 1,2-dibromo-3-chloropr...	18.117	75	101007	44.62	ug/L	92
115) 1,3,5-trichlorobenzene	18.300	180	576328	57.37	ug/L	94
116) 1,2,4-trichlorobenzene	18.966	180	518839	54.44	ug/L	97
117) hexachlorobutadiene	19.076	225	240061	51.87	ug/L	95
118) naphthalene	19.265	128	1295805	48.22	ug/L	100
119) 1,2,3-trichlorobenzene	19.490	180	461884	54.01	ug/L	99
120) hexachloroethane	17.640	201	186575	46.48	ug/L	96
121) 2-methylnaphthalene	20.429	142	196384	17.83	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187622.d
Acq On : 17 Nov 2021 10:18 am
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:08:13 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Manual Integration Approval Summary

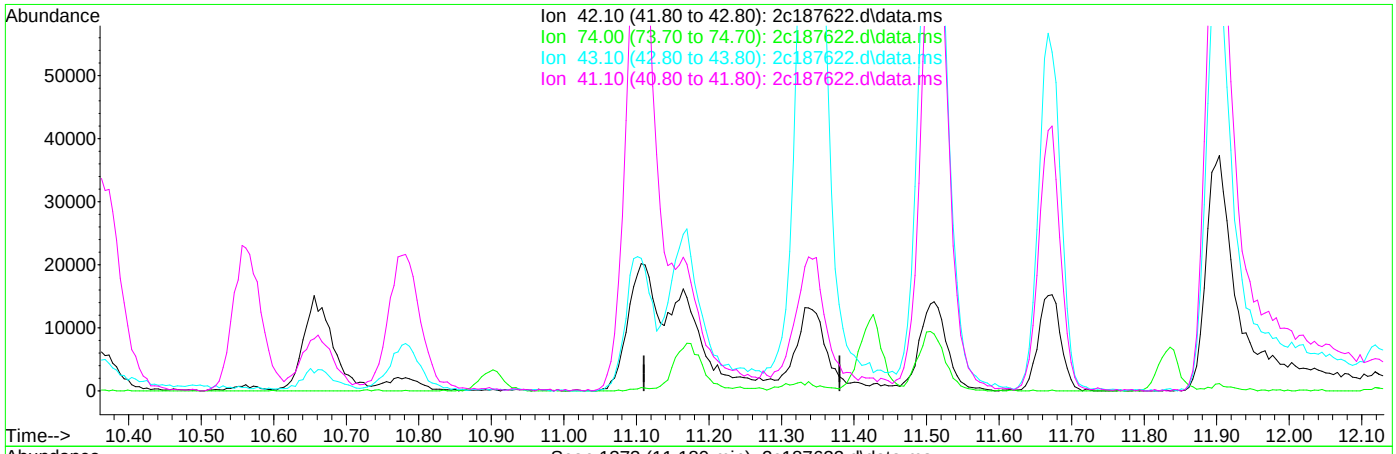
Sample Number: V2C8352-BS
Lab FileID: 2C187622.D
Injection Time: 11/17/21 10:18
Method: SW846 8260D
Analyst approved: 11/18/21 02:57 Dave Moriente
Supervisor approved: 11/18/21 11:31 Mei Chen

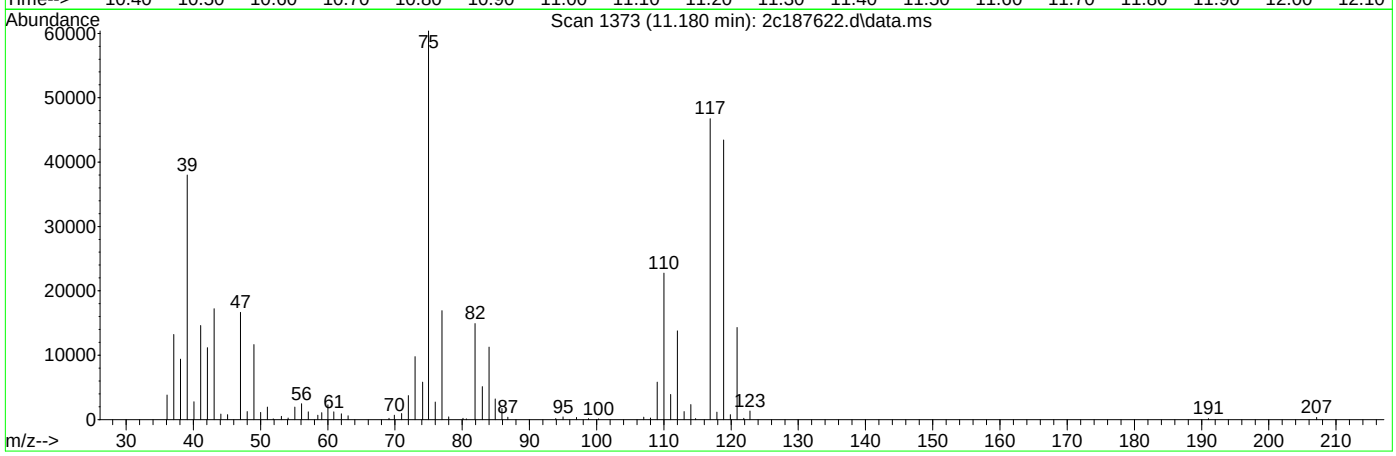
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		11.16	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187622.d
Acq On : 17 Nov 2021 10:18 am
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 17 11:09:14 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration





TIC: 2c187622.d\data.ms

(48) isobutyl alcohol

11.180min (-11.180) 0.00ug/L

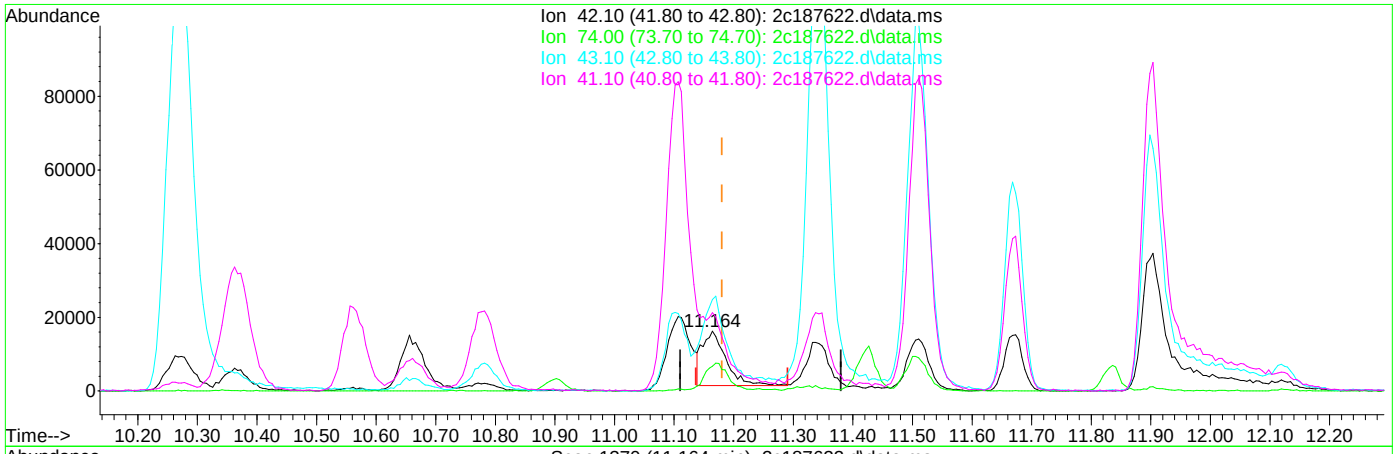
response 0

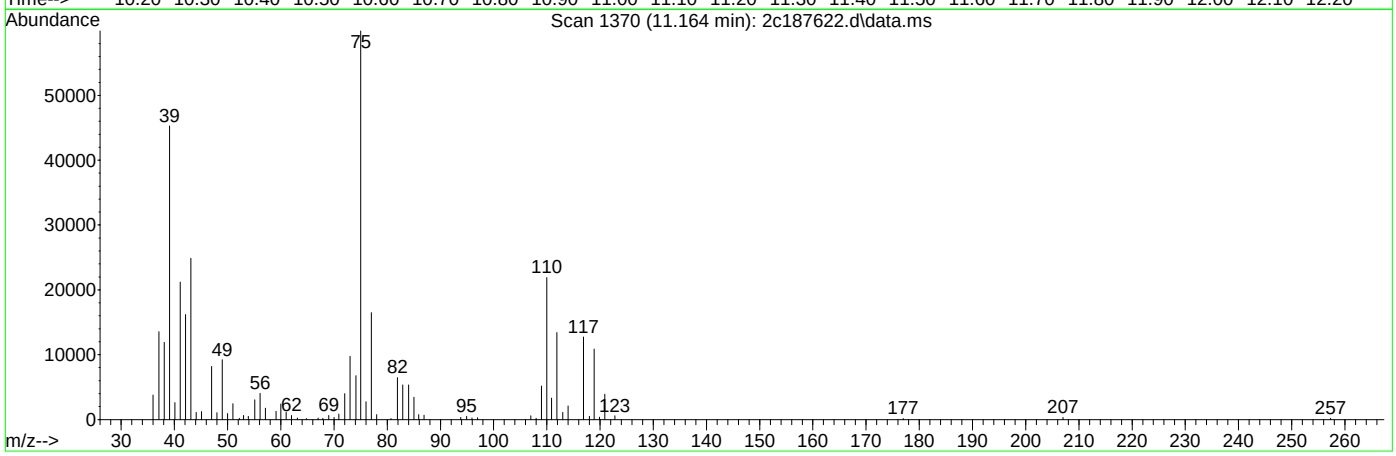
Ion	Exp%	Act%
42.10	100	0.00
74.00	28.70	0.00
43.10	148.70	0.00#
41.10	116.30	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187622.d
Acq On : 17 Nov 2021 10:18 am
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 17 11:09:14 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration





TIC: 2c187622.d\data.ms

(48) isobutyl alcohol

11.164min (-0.016) 318.56ug/L m

response 40766

Ion	Exp%	Act%
42.10	100	100
74.00	28.70	41.71
43.10	148.70	153.45
41.10	116.30	130.99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187623.d
Acq On : 17 Nov 2021 10:47 am
Operator : thienn
Sample : bsd Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:05:15 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.459	65	244744	500.00	ug/L	-0.03
5) pentafluorobenzene	10.902	168	230717	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	384026	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	604216	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	354342	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	124340	51.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.68%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	145040	45.38	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.76%			
73) toluene-d8 (s)	13.382	98	640419	42.83	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.66%			
96) 4-bromofluorobenzene (s)	15.878	95	297101	53.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.30%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.590	59	139258	243.50	ug/L	98
4) 1,4-dioxane	12.460	88	74786	1699.30	ug/L	91
6) chlorodifluoromethane	4.579	51	122570	31.84	ug/L	91
7) dichlorodifluoromethane	4.553	85	221281	45.81	ug/L	95
8) chloromethane	5.015	50	228993	49.22	ug/L	99
9) vinyl chloride	5.287	62	237759	51.89	ug/L	98
10) 1,3-butadiene	5.329	54	194732	50.79	ug/L	98
11) bromomethane	6.016	94	346586	80.58	ug/L	98
12) chloroethane	6.199	64	186647	64.13	ug/L	95
13) trichlorofluoromethane	6.745	101	268620	46.98	ug/L	97
14) ethyl ether	7.180	74	67645	48.85	ug/L	85
15) acrolein	7.453	56	33269	48.54	ug/L	90
16) freon 113	7.683	151	112305	44.41	ug/L	97
17) 1,1-dichloroethene	7.668	96	112735	40.68	ug/L	82
18) acetone	7.683	58	79467	174.66	ug/L	95
19) iodomethane	7.956	142	236481	47.17	ug/L	93
20) acetonitrile	8.192	41	173217	348.13	ug/L	95
21) carbon disulfide	8.103	76	383036	43.37	ug/L	96
22) methylene chloride	8.485	84	139131	44.16	ug/L	90
23) methyl acetate	8.208	43	111172	39.52	ug/L	100
24) methyl tert butyl ether	8.879	73	408335	45.18	ug/L	98
25) trans-1,2-dichloroethene	8.905	96	121936	43.56	ug/L	86
26) hexane	9.293	56	62499	39.24	ug/L #	85
27) di-isopropyl ether	9.545	45	327120	40.61	ug/L	94
28) 1,1-dichloroethane	9.555	63	192507	44.22	ug/L	97
29) chloroprene	9.655	53	136262	39.14	ug/L	90
30) acrylonitrile	8.826	53	68736	48.99	ug/L	97
31) vinyl acetate	9.492	86	23294	54.44	ug/L #	75
32) ethyl tert-butyl ether	10.043	59	375401	46.85	ug/L	97
33) 2-butanone	10.263	72	84519	205.66	ug/L #	64
34) ethyl acetate	10.273	45	17633	40.08	ug/L #	92
35) 2,2-dichloropropane	10.368	77	209382	49.86	ug/L	99
36) cis-1,2-dichloroethene	10.331	96	132813	43.36	ug/L	96
37) propionitrile	10.368	54	243910	424.08	ug/L	93
38) bromochloromethane	10.646	128	71750	46.03	ug/L	91
39) tetrahydrofuran	10.661	71	23159	46.33	ug/L #	80
40) chloroform	10.740	83	227817	47.93	ug/L	98
41) t-butyl formate	10.782	59	100005	47.26	ug/L	94
43) methacrylonitrile	10.567	67	55163	45.44	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187623.d
Acq On : 17 Nov 2021 10:47 am
Operator : thienn
Sample : bsd Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:05:15 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	1,1,1-trichloroethane	11.002	97	229024	45.88	ug/L		97
45)	cyclohexane	11.112	84	221540	51.46	ug/L		93
46)	1,1-dichloropropene	11.175	75	160801	52.38	ug/L		99
47)	carbon tetrachloride	11.201	117	215334	51.47	ug/L		99
48)	isobutyl alcohol	11.165	42	43617	334.86	ug/L		91
51)	n-butyl alcohol	11.899	56	440235	2215.67	ug/L		99
52)	tert-amyl alcohol	11.322	55	55973	179.97	ug/L	#	85
53)	iso-octane	11.511	57	504033	65.15	ug/L		97
54)	benzene	11.422	78	503092	47.66	ug/L		97
55)	tert-amyl methyl ether	11.505	87	128132	50.02	ug/L		96
56)	heptane	11.668	57	73228	49.31	ug/L		85
57)	isopropyl acetate	11.343	87	38480	48.74	ug/L	#	81
58)	1,2-dichloroethane	11.458	62	187486	42.57	ug/L		98
59)	ethyl acrylate	12.124	55	204879	48.70	ug/L		99
60)	trichloroethene	12.135	95	148238	51.97	ug/L		95
61)	2-nitropropane	12.869	41	78472	48.72	ug/L	#	55
62)	2-chloroethyl vinyl ether	12.884	63	451004	276.25	ug/L		99
63)	methyl methacrylate	12.376	100	44896	54.58	ug/L		92
64)	1,2-dichloropropane	12.418	63	144667	53.05	ug/L		99
65)	dibromomethane	12.517	93	117164	54.63	ug/L		94
66)	methylcyclohexane	12.412	83	299919	52.63	ug/L		91
67)	bromodichloromethane	12.664	83	221986	57.52	ug/L		98
68)	epichlorohydrin	12.973	57	120504	274.81	ug/L		96
69)	cis-1,3-dichloropropene	13.094	75	255462	60.20	ug/L		94
70)	4-methyl-2-pentanone	13.194	58	453288	249.38	ug/L	#	85
71)	3-methyl-1-butanol	13.199	55	427631	1037.74	ug/L		95
74)	toluene	13.451	92	439245	42.23	ug/L		99
75)	ethyl methacrylate	13.613	69	253491	41.14	ug/L		92
76)	trans-1,3-dichloropropene	13.629	75	273577	42.82	ug/L		89
77)	1,1,2-trichloroethane	13.839	83	145505	40.82	ug/L		99
78)	2-hexanone	13.991	58	472032	168.94	ug/L	#	87
79)	tetrachloroethene	13.970	164	166476	42.05	ug/L		97
80)	1,3-dichloropropane	14.006	76	294673	44.47	ug/L		86
81)	butyl acetate	14.054	56	153955	37.98	ug/L		98
82)	dibromochloromethane	14.237	129	225569	45.51	ug/L		99
83)	1,2-dibromoethane	14.379	107	207085	44.35	ug/L		97
84)	n-butyl ether	14.772	57	792597	40.14	ug/L		94
85)	chlorobenzene	14.824	112	599660	48.24	ug/L		96
86)	1,1,1,2-tetrachloroethane	14.887	131	278721	48.73	ug/L		100
87)	ethylbenzene	14.877	91	1006930	46.19	ug/L		99
88)	m,p-xylene	14.987	106	787984	97.65	ug/L		91
89)	o-xylene	15.364	106	451478	50.13	ug/L		95
90)	styrene	15.375	104	704947	48.90	ug/L		93
91)	butyl acrylate	15.197	55	444513	37.35	ug/L		97
92)	bromoform	15.595	173	229393	50.76	ug/L		99
93)	isopropylbenzene	15.684	105	1171741	49.42	ug/L		99
94)	cis-1,4-dichloro-2-butene	15.726	75	68407	28.74	ug/L	#	87
97)	bromobenzene	16.051	156	320286	55.89	ug/L		97
98)	1,1,2,2-tetrachloroethane	15.952	83	396374	57.72	ug/L		99
99)	trans-1,4-dichloro-2-b...	15.978	88	39197	33.97	ug/L		82
100)	1,2,3-trichloropropane	16.030	110	107769	52.65	ug/L		100
101)	n-propylbenzene	16.072	91	1328116	55.27	ug/L		96
102)	2-chlorotoluene	16.198	126	295420	59.04	ug/L		90
103)	4-chlorotoluene	16.303	91	778866	53.41	ug/L		96
104)	1,3,5-trimethylbenzene	16.214	105	1018358	54.96	ug/L		99
105)	tert-butylbenzene	16.534	119	845422	57.56	ug/L		92
106)	1,2,4-trimethylbenzene	16.581	105	1031759	56.73	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187623.d
Acq On : 17 Nov 2021 10:47 am
Operator : thienn
Sample : bsd Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:05:15 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

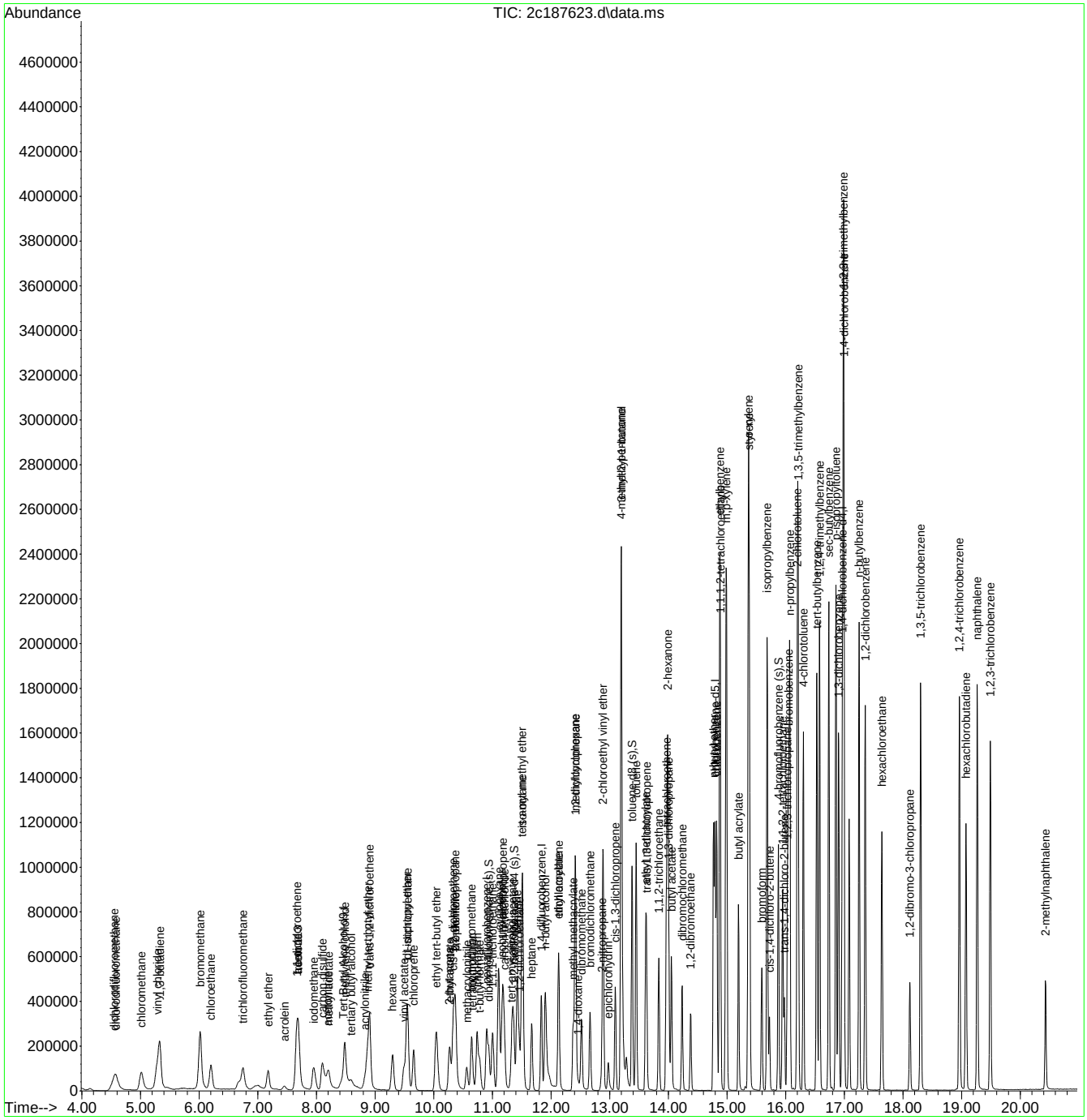
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) sec-butylbenzene	16.738	105	1352922	58.35	ug/L	98
108) 1,3-dichlorobenzene	16.906	146	621651	58.20	ug/L	97
109) p-isopropyltoluene	16.859	119	1170971	58.22	ug/L	96
110) 1,2,3-trimethylbenzene	16.984	105	1168758	55.66	ug/L	98
111) 1,4-dichlorobenzene	16.995	146	671893	58.98	ug/L	98
112) 1,2-dichlorobenzene	17.357	146	662513	57.30	ug/L	98
113) n-butylbenzene	17.252	92	564369	56.24	ug/L	96
114) 1,2-dibromo-3-chloropr...	18.117	75	101754	45.15	ug/L	84
115) 1,3,5-trichlorobenzene	18.300	180	581436	58.13	ug/L	96
116) 1,2,4-trichlorobenzene	18.961	180	533603	56.24	ug/L	99
117) hexachlorobutadiene	19.076	225	246135	53.41	ug/L	98
118) naphthalene	19.265	128	1357750	50.75	ug/L	100
119) 1,2,3-trichlorobenzene	19.491	180	478982	56.25	ug/L	98
120) hexachloroethane	17.640	201	191802	47.93	ug/L	94
121) 2-methylnaphthalene	20.429	142	224457	20.47	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187623.d
Acq On : 17 Nov 2021 10:47 am
Operator : thienn
Sample : bsd Inst : GCMS2C
Misc : MS46075,V2C8352,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:05:15 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187673.d
Acq On : 18 Nov 2021 12:49 pm
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:20:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.464	65	252545	500.00	ug/L		-0.03
5) pentafluorobenzene	10.902	168	232053	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.836	114	381099	50.00	ug/L		0.00
72) chlorobenzene-d5	14.798	117	565099	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.969	152	328125	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.939	113	125540	51.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.06%				
50) 1,2-dichloroethane-d4 (s)	11.369	65	143192	45.14	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.28%				
73) toluene-d8 (s)	13.382	98	615715	44.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.06%				
96) 4-bromofluorobenzene (s)	15.878	95	270084	52.66	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.32%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.585	59	133529	226.27	ug/L		91
4) 1,4-dioxane	12.454	88	88948	1958.66	ug/L		90
6) chlorodifluoromethane	4.579	51	150142	38.78	ug/L		96
7) dichlorodifluoromethane	4.558	85	195848	40.31	ug/L		95
8) chloromethane	5.020	50	236731	50.59	ug/L		99
9) vinyl chloride	5.287	62	233170	50.60	ug/L		98
10) 1,3-butadiene	5.329	54	222233	57.63	ug/L		96
11) bromomethane	6.016	94	331885	76.71	ug/L		94
12) chloroethane	6.205	64	224222	76.60	ug/L		95
13) trichlorofluoromethane	6.750	101	293030	50.95	ug/L		95
14) ethyl ether	7.180	74	68984	49.53	ug/L		95
15) acrolein	7.452	56	26756	38.82	ug/L		89
16) freon 113	7.688	151	129432	50.89	ug/L		97
17) 1,1-dichloroethene	7.667	96	127506	45.74	ug/L	#	78
18) acetone	7.694	58	94861	207.29	ug/L	#	80
19) iodomethane	7.950	142	256151	50.80	ug/L		96
20) acetonitrile	8.192	41	181645	362.97	ug/L		98
21) carbon disulfide	8.103	76	424805	47.82	ug/L		94
22) methylene chloride	8.485	84	143566	45.31	ug/L		91
23) methyl acetate	8.213	43	107212	37.90	ug/L		94
24) methyl tert butyl ether	8.879	73	404563	44.50	ug/L		98
25) trans-1,2-dichloroethene	8.910	96	131436	46.69	ug/L		89
26) hexane	9.303	56	82722	51.64	ug/L		95
27) di-isopropyl ether	9.544	45	334782	41.32	ug/L		95
28) 1,1-dichloroethane	9.555	63	200010	45.68	ug/L		99
29) chloroprene	9.660	53	142277	40.63	ug/L		87
30) acrylonitrile	8.831	53	62036	43.96	ug/L		93
31) vinyl acetate	9.487	86	24522	56.98	ug/L		93
32) ethyl tert-butyl ether	10.042	59	372501	46.22	ug/L		95
33) 2-butanone	10.268	72	93644	226.55	ug/L	#	76
34) ethyl acetate	10.278	45	19736	44.60	ug/L		99
35) 2,2-dichloropropane	10.373	77	212854	50.39	ug/L		96
36) cis-1,2-dichloroethene	10.331	96	140600	45.64	ug/L		93
37) propionitrile	10.362	54	247662	428.13	ug/L		92
38) bromochloromethane	10.645	128	74990	47.83	ug/L	#	81
39) tetrahydrofuran	10.661	71	23187	46.12	ug/L	#	84
40) chloroform	10.740	83	222595	46.57	ug/L		98
41) t-butyl formate	10.782	59	96839	45.50	ug/L		97
43) methacrylonitrile	10.567	67	54791	44.87	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187673.d
Acq On : 18 Nov 2021 12:49 pm
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:20:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	11.007	97	236543	47.11	ug/L		94
45) cyclohexane	11.107	84	214576	49.55	ug/L		93
46) 1,1-dichloropropene	11.170	75	159593	51.69	ug/L		99
47) carbon tetrachloride	11.201	117	223192	53.04	ug/L		95
48) isobutyl alcohol	11.170	42	38779	296.00	ug/L		88
51) n-butyl alcohol	11.904	56	450383	2284.15	ug/L		98
52) tert-amyl alcohol	11.322	55	58763	190.40	ug/L	#	78
53) iso-octane	11.516	57	513410	66.87	ug/L		96
54) benzene	11.427	78	508316	48.52	ug/L		98
55) tert-amyl methyl ether	11.511	87	125315	49.30	ug/L		96
56) heptane	11.673	57	75029	50.91	ug/L		89
57) isopropyl acetate	11.343	87	38072	48.59	ug/L	#	76
58) 1,2-dichloroethane	11.458	62	186317	42.63	ug/L		98
59) ethyl acrylate	12.124	55	196256	47.01	ug/L		98
60) trichloroethene	12.129	95	155426	54.91	ug/L		98
61) 2-nitropropane	12.874	41	72810	45.55	ug/L		99
62) 2-chloroethyl vinyl ether	12.889	63	458968	283.29	ug/L		97
63) methyl methacrylate	12.376	100	45311	55.51	ug/L	#	83
64) 1,2-dichloropropane	12.412	63	144449	53.37	ug/L		99
65) dibromomethane	12.517	93	116917	54.93	ug/L		97
66) methylcyclohexane	12.418	83	303061	53.59	ug/L		91
67) bromodichloromethane	12.664	83	215973	56.39	ug/L		97
68) epichlorohydrin	12.973	57	116903	268.65	ug/L		95
69) cis-1,3-dichloropropene	13.094	75	252367	59.93	ug/L		91
70) 4-methyl-2-pentanone	13.199	58	437502	242.54	ug/L		87
71) 3-methyl-1-butanol	13.199	55	412899	1009.68	ug/L		92
74) toluene	13.450	92	429778	44.18	ug/L		99
75) ethyl methacrylate	13.613	69	233431	40.51	ug/L		94
76) trans-1,3-dichloropropene	13.629	75	260223	43.55	ug/L		89
77) 1,1,2-trichloroethane	13.838	83	141894	42.56	ug/L		95
78) 2-hexanone	13.985	58	469936	179.84	ug/L		89
79) tetrachloroethene	13.970	164	176223	47.60	ug/L		98
80) 1,3-dichloropropane	14.006	76	278661	44.96	ug/L		87
81) butyl acetate	14.053	56	142799	37.66	ug/L		93
82) dibromochloromethane	14.237	129	222503	47.99	ug/L		98
83) 1,2-dibromoethane	14.378	107	203744	46.65	ug/L		99
84) n-butyl ether	14.772	57	721422	39.07	ug/L		94
85) chlorobenzene	14.824	112	564659	48.57	ug/L		96
86) 1,1,1,2-tetrachloroethane	14.887	131	256090	47.87	ug/L		99
87) ethylbenzene	14.877	91	942999	46.25	ug/L		98
88) m,p-xylene	14.987	106	747038	98.98	ug/L		90
89) o-xylene	15.364	106	414358	49.19	ug/L		96
90) styrene	15.375	104	658531	48.84	ug/L		91
91) butyl acrylate	15.196	55	387548	34.82	ug/L		94
92) bromoform	15.595	173	212771	50.34	ug/L		99
93) isopropylbenzene	15.684	105	1092022	49.25	ug/L		98
94) cis-1,4-dichloro-2-butene	15.726	75	70360	31.60	ug/L	#	89
97) bromobenzene	16.051	156	307314	57.91	ug/L		93
98) 1,1,2,2-tetrachloroethane	15.951	83	360586	56.70	ug/L		100
99) trans-1,4-dichloro-2-b...	15.978	88	38553	36.08	ug/L		87
100) 1,2,3-trichloropropane	16.035	110	97299	51.33	ug/L		98
101) n-propylbenzene	16.072	91	1228712	55.22	ug/L		96
102) 2-chlorotoluene	16.198	126	277718	59.94	ug/L		87
103) 4-chlorotoluene	16.303	91	720148	53.33	ug/L		95
104) 1,3,5-trimethylbenzene	16.214	105	941895	54.89	ug/L		97
105) tert-butylbenzene	16.533	119	786711	57.84	ug/L		91
106) 1,2,4-trimethylbenzene	16.581	105	961254	57.08	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187673.d
Acq On : 18 Nov 2021 12:49 pm
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:20:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

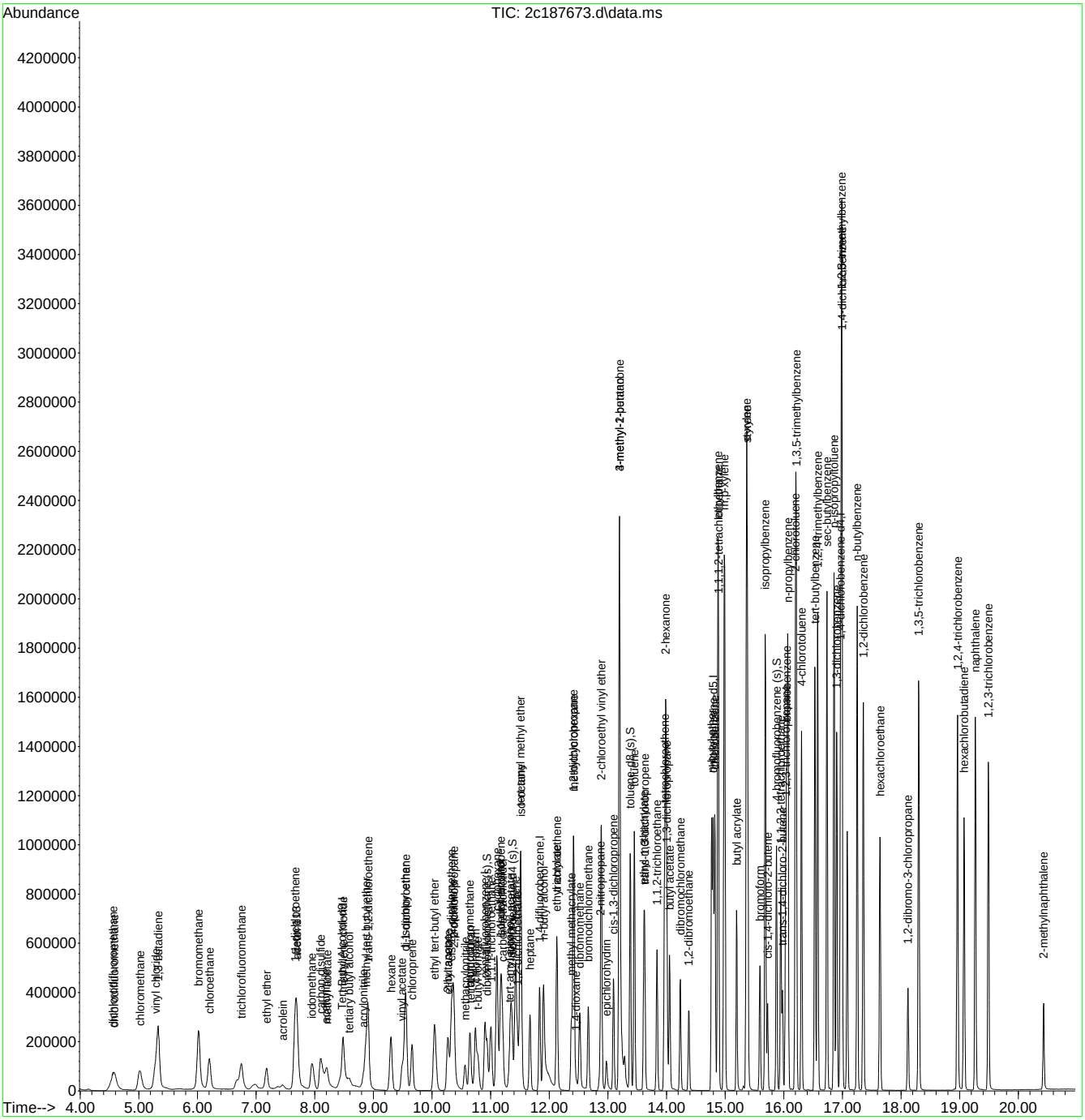
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) sec-butylbenzene	16.738	105	1252063	58.31	ug/L	98
108) 1,3-dichlorobenzene	16.906	146	591362	59.79	ug/L	97
109) p-isopropyltoluene	16.858	119	1090490	58.55	ug/L	96
110) 1,2,3-trimethylbenzene	16.984	105	1068893	54.97	ug/L	97
111) 1,4-dichlorobenzene	16.995	146	630882	59.81	ug/L	98
112) 1,2-dichlorobenzene	17.357	146	624921	58.37	ug/L	98
113) n-butylbenzene	17.252	92	520757	56.04	ug/L	97
114) 1,2-dibromo-3-chloropr...	18.117	75	87219	41.79	ug/L	83
115) 1,3,5-trichlorobenzene	18.300	180	550187	59.40	ug/L	93
116) 1,2,4-trichlorobenzene	18.966	180	483249	55.00	ug/L	99
117) hexachlorobutadiene	19.076	225	230340	53.98	ug/L	97
118) naphthalene	19.270	128	1194783	48.23	ug/L	99
119) 1,2,3-trichlorobenzene	19.490	180	427853	54.26	ug/L	98
120) hexachloroethane	17.645	201	178154	48.08	ug/L	96
121) 2-methylnaphthalene	20.434	142	166289	16.38	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187673.d
Acq On : 18 Nov 2021 12:49 pm
Operator : thienn
Sample : bs Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:20:25 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187633.d
Acq On : 17 Nov 2021 4:09 pm
Operator : thienn
Sample : JD35270-6ms Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:13:10 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.475	65	279542	500.00	ug/L	-0.02
5) pentafluorobenzene	10.902	168	225421	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	372572	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	570172	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	344129	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	126544	53.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.96%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	143996	46.44	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.88%			
73) toluene-d8 (s)	13.382	98	621781	44.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.14%			
96) 4-bromofluorobenzene (s)	15.878	95	283840	52.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.54%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.595	59	152233	233.05	ug/L	95
4) 1,4-dioxane	12.465	88	84934	1689.64	ug/L	91
6) chlorodifluoromethane	4.579	51	72557	19.29	ug/L	95
7) dichlorodifluoromethane	4.548	85	58755	12.45	ug/L	94
8) chloromethane	5.014	50	179596	39.51	ug/L	100
9) vinyl chloride	5.282	62	129529	28.93	ug/L	97
10) 1,3-butadiene	5.319	54	115573	30.85	ug/L	94
11) bromomethane	6.016	94	264854	63.02	ug/L	98
12) chloroethane	6.199	64	157576	55.41	ug/L	94
13) trichlorofluoromethane	6.750	101	125409	22.45	ug/L	94
14) ethyl ether	7.180	74	63018	46.57	ug/L	96
15) acrolein	7.452	56	20356	30.40	ug/L	89
16) freon 113	7.694	151	63912	25.87	ug/L	95
17) 1,1-dichloroethene	7.657	96	77044	28.45	ug/L	86
18) acetone	7.694	58	62648	140.93	ug/L	85
19) iodomethane	7.951	142	169486	34.60	ug/L	97
20) acetonitrile	8.207	41	186739	384.12	ug/L	99
21) carbon disulfide	8.097	76	280959	32.56	ug/L	94
22) methylene chloride	8.485	84	131939	42.86	ug/L	92
23) methyl acetate	8.207	43	101866	37.07	ug/L	96
24) methyl tert butyl ether	8.884	73	385274	43.63	ug/L	95
25) trans-1,2-dichloroethene	8.910	96	102932	37.64	ug/L	88
26) hexane	9.298	56	32397	20.82	ug/L	95
27) di-isopropyl ether	9.544	45	317540	40.34	ug/L	90
28) 1,1-dichloroethane	9.555	63	177150	41.65	ug/L	98
29) chloroprene	9.655	53	104876	30.83	ug/L	98
30) acrylonitrile	8.831	53	48199	35.16	ug/L	89
31) vinyl acetate	9.487	86	20329	48.63	ug/L #	90
32) ethyl tert-butyl ether	10.048	59	356336	45.51	ug/L	97
33) 2-butanone	10.268	72	75478	187.98	ug/L #	70
34) ethyl acetate	10.278	45	18966	44.12	ug/L #	63
35) 2,2-dichloropropane	10.362	77	175642	42.80	ug/L	95
36) cis-1,2-dichloroethene	10.331	96	124428	41.58	ug/L	97
37) propionitrile	10.362	54	246108	437.96	ug/L	99
38) bromochloromethane	10.645	128	66988	43.99	ug/L	88
39) tetrahydrofuran	10.661	71	22727	46.53	ug/L #	74
40) chloroform	10.740	83	240092	51.70	ug/L	98
41) t-butyl formate	10.777	59	56085	27.12	ug/L	92
43) methacrylonitrile	10.567	67	53382	45.00	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187633.d
Acq On : 17 Nov 2021 4:09 pm
Operator : thienn
Sample : JD35270-6ms Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:13:10 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	11.002	97	190434	39.05	ug/L		93
45) cyclohexane	11.112	84	104829	24.92	ug/L	#	70
46) 1,1-dichloropropene	11.175	75	121931	40.65	ug/L		99
47) carbon tetrachloride	11.196	117	157467	38.52	ug/L		97
48) isobutyl alcohol	11.170	42	50919	400.10	ug/L		92
51) n-butyl alcohol	11.904	56	441443	2290.05	ug/L		99
52) tert-amyl alcohol	11.338	55	60401	200.18	ug/L		98
53) iso-octane	11.511	57	275528	36.71	ug/L		91
54) benzene	11.427	78	436950	42.66	ug/L		98
55) tert-amyl methyl ether	11.511	87	116670	46.95	ug/L		96
56) heptane	11.673	57	42584	29.55	ug/L		86
57) isopropyl acetate	11.348	87	34688	45.29	ug/L	#	77
58) 1,2-dichloroethane	11.458	62	173860	40.69	ug/L		95
59) ethyl acrylate	12.124	55	184334	45.16	ug/L		96
60) trichloroethene	12.129	95	126175	45.60	ug/L		98
61) 2-nitropropane	12.868	41	52341	33.49	ug/L	#	6
63) methyl methacrylate	12.376	100	41325	51.79	ug/L		92
64) 1,2-dichloropropane	12.418	63	130970	49.50	ug/L		98
65) dibromomethane	12.522	93	106810	51.33	ug/L		98
66) methylcyclohexane	12.412	83	190338	34.43	ug/L		89
67) bromodichloromethane	12.664	83	209234	55.88	ug/L		98
68) epichlorohydrin	12.973	57	105212	247.31	ug/L		96
69) cis-1,3-dichloropropene	13.094	75	233162	56.63	ug/L		90
70) 4-methyl-2-pentanone	13.194	58	420544	238.48	ug/L		88
71) 3-methyl-1-butanol	13.199	55	409308	1023.81	ug/L		94
74) toluene	13.450	92	372902	37.99	ug/L		98
75) ethyl methacrylate	13.613	69	229149	39.41	ug/L		92
76) trans-1,3-dichloropropene	13.629	75	243787	40.44	ug/L		92
77) 1,1,2-trichloroethane	13.838	83	133904	39.81	ug/L		97
78) 2-hexanone	13.985	58	419957	159.28	ug/L		94
79) tetrachloroethene	13.964	164	139201	37.26	ug/L		98
80) 1,3-dichloropropane	14.006	76	262438	41.97	ug/L		87
81) butyl acetate	14.053	56	142783	37.32	ug/L		93
82) dibromochloromethane	14.237	129	199711	42.70	ug/L		98
83) 1,2-dibromoethane	14.378	107	185674	42.14	ug/L		99
84) n-butyl ether	14.772	57	699219	37.53	ug/L		97
85) chlorobenzene	14.824	112	521608	44.47	ug/L		96
86) 1,1,1,2-tetrachloroethane	14.887	131	248432	46.03	ug/L		98
87) ethylbenzene	14.877	91	858717	41.74	ug/L		98
88) m,p-xylene	14.987	106	685572	90.03	ug/L		87
89) o-xylene	15.364	106	386341	45.46	ug/L		97
90) styrene	15.375	104	269356	19.80	ug/L		99
91) butyl acrylate	15.196	55	410949	36.59	ug/L		94
92) bromoform	15.595	173	200274	46.96	ug/L		99
93) isopropylbenzene	15.684	105	972603	43.47	ug/L		99
94) cis-1,4-dichloro-2-butene	15.726	75	44491	19.81	ug/L	#	90
97) bromobenzene	16.051	156	284088	51.04	ug/L		97
98) 1,1,2,2-tetrachloroethane	15.946	83	365044	54.73	ug/L		99
99) trans-1,4-dichloro-2-b...	15.978	88	25498	22.75	ug/L	#	87
100) 1,2,3-trichloropropane	16.030	110	97419	49.01	ug/L		98
101) n-propylbenzene	16.072	91	1119701	47.98	ug/L		96
102) 2-chlorotoluene	16.198	126	255423	52.56	ug/L		94
103) 4-chlorotoluene	16.303	91	696145	49.15	ug/L		96
104) 1,3,5-trimethylbenzene	16.214	105	834163	46.35	ug/L		99
105) tert-butylbenzene	16.533	119	698259	48.95	ug/L		90
106) 1,2,4-trimethylbenzene	16.581	105	915700	51.84	ug/L		97
107) sec-butylbenzene	16.738	105	1091760	48.48	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187633.d
Acq On : 17 Nov 2021 4:09 pm
Operator : thienn
Sample : JD35270-6ms Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:13:10 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

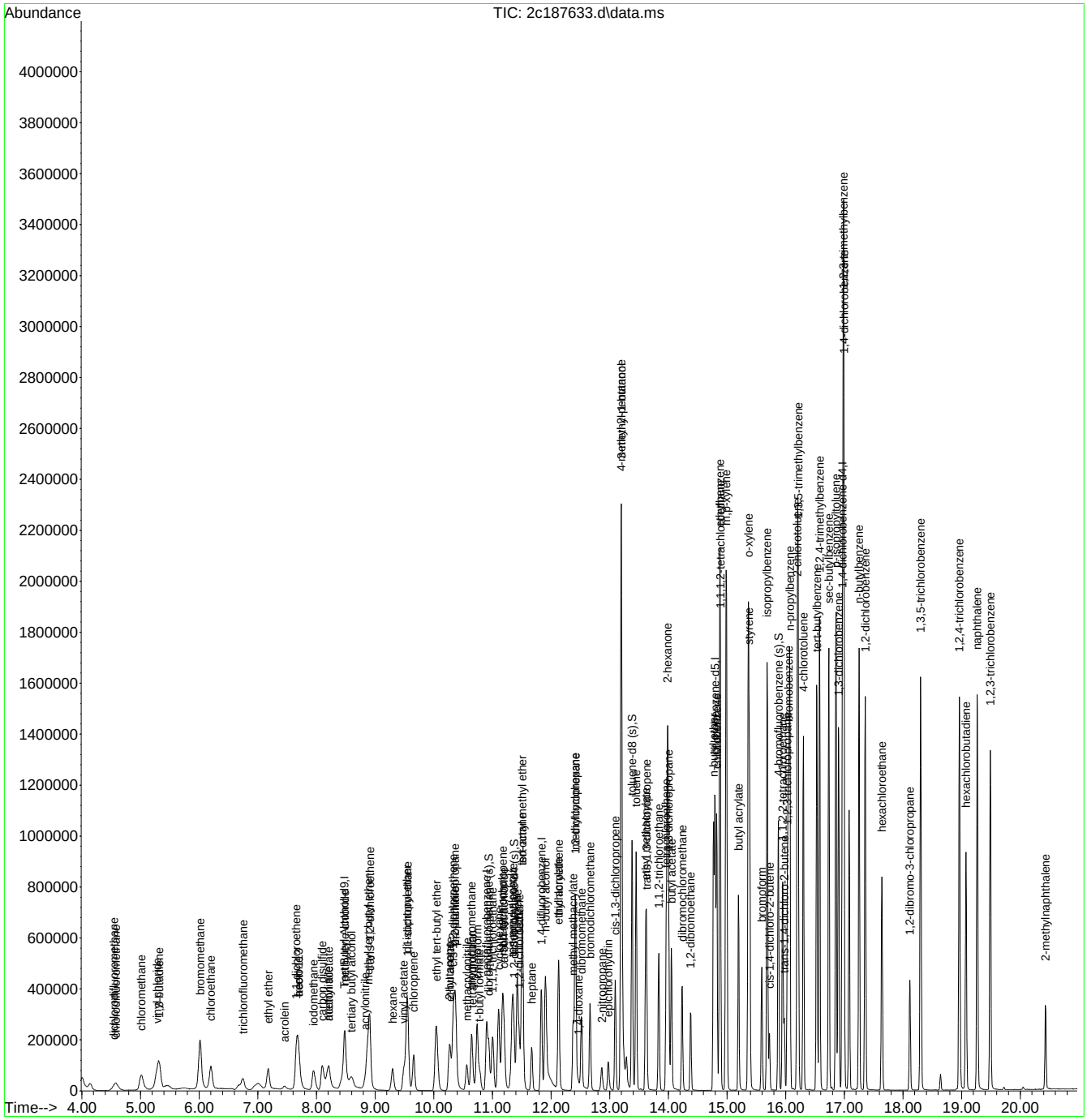
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3-dichlorobenzene	16.906	146	554946	53.50	ug/L	98
109) p-isopropyltoluene	16.858	119	968226	49.57	ug/L	97
110) 1,2,3-trimethylbenzene	16.984	105	1038560	50.93	ug/L	98
111) 1,4-dichlorobenzene	16.995	146	599571	54.20	ug/L	97
112) 1,2-dichlorobenzene	17.357	146	587721	52.34	ug/L	97
113) n-butylbenzene	17.252	92	469306	48.15	ug/L	96
114) 1,2-dibromo-3-chloropr...	18.117	75	91729	41.91	ug/L	84
115) 1,3,5-trichlorobenzene	18.300	180	515792	53.10	ug/L	94
116) 1,2,4-trichlorobenzene	18.961	180	464319	50.39	ug/L	98
117) hexachlorobutadiene	19.076	225	185316	41.41	ug/L	99
118) naphthalene	19.265	128	1159544	44.63	ug/L	99
119) 1,2,3-trichlorobenzene	19.490	180	413182	49.96	ug/L	98
120) hexachloroethane	17.640	201	139008	36.19	ug/L	95
121) 2-methylnaphthalene	20.429	142	152274	14.30	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187633.d
Acq On : 17 Nov 2021 4:09 pm
Operator : thienn
Sample : JD35270-6ms Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:13:10 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187634.d
Acq On : 17 Nov 2021 4:39 pm
Operator : thienn
Sample : JD35270-6msd Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:14:03 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.449	65	286818	500.00	ug/L	-0.04
5) pentafluorobenzene	10.902	168	236254	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	390193	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	598328	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	354258	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	131174	52.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.78%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	162023	49.89	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.78%			
73) toluene-d8 (s)	13.382	98	642540	43.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.78%			
96) 4-bromofluorobenzene (s)	15.873	95	298305	53.88	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.76%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.590	59	144332	215.35	ug/L	95
4) 1,4-dioxane	12.454	88	91356	1771.30	ug/L	88
6) chlorodifluoromethane	4.595	51	76562	19.43	ug/L	93
7) dichlorodifluoromethane	4.553	85	61971	12.53	ug/L	94
8) chloromethane	5.015	50	195067	40.95	ug/L	95
9) vinyl chloride	5.292	62	139938	29.83	ug/L	99
10) 1,3-butadiene	5.319	54	103623	26.40	ug/L	95
11) bromomethane	6.021	94	287068	65.17	ug/L	96
12) chloroethane	6.205	64	173883	58.34	ug/L	92
13) trichlorofluoromethane	6.745	101	137147	23.42	ug/L	94
14) ethyl ether	7.180	74	65494	46.18	ug/L	94
15) acrolein	7.458	56	22398	31.92	ug/L	88
16) freon 113	7.683	151	66158	25.55	ug/L	92
17) 1,1-dichloroethene	7.657	96	83183	29.31	ug/L	91
18) acetone	7.694	58	66595	142.94	ug/L #	83
19) iodomethane	7.951	142	164155	31.98	ug/L	98
20) acetonitrile	8.192	41	185176	363.44	ug/L	99
21) carbon disulfide	8.097	76	298640	33.02	ug/L	96
22) methylene chloride	8.485	84	136357	42.27	ug/L	88
23) methyl acetate	8.208	43	99242	34.45	ug/L	89
24) methyl tert butyl ether	8.884	73	403812	43.63	ug/L	100
25) trans-1,2-dichloroethene	8.910	96	109059	38.05	ug/L	91
26) hexane	9.303	56	33789	20.72	ug/L #	87
27) di-isopropyl ether	9.544	45	333379	40.41	ug/L	96
28) 1,1-dichloroethane	9.555	63	184543	41.40	ug/L	96
29) chloroprene	9.655	53	108725	30.49	ug/L	91
30) acrylonitrile	8.821	53	52290	36.40	ug/L	97
31) vinyl acetate	9.497	86	21067	48.08	ug/L #	92
32) ethyl tert-butyl ether	10.043	59	370488	45.15	ug/L	97
33) 2-butanone	10.263	72	77688	184.61	ug/L #	63
34) ethyl acetate	10.279	45	19467	43.21	ug/L #	74
35) 2,2-dichloropropane	10.362	77	182423	42.42	ug/L	99
36) cis-1,2-dichloroethene	10.331	96	128160	40.86	ug/L	96
37) propionitrile	10.368	54	253123	429.79	ug/L	96
38) bromochloromethane	10.646	128	68699	43.04	ug/L	91
39) tetrahydrofuran	10.661	71	22824	44.59	ug/L #	81
40) chloroform	10.735	83	249561	51.28	ug/L	98
41) t-butyl formate	10.777	59	44713	20.63	ug/L	97
43) methacrylonitrile	10.567	67	54838	44.11	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187634.d
Acq On : 17 Nov 2021 4:39 pm
Operator : thienn
Sample : JD35270-6msd Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:14:03 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	1,1,1-trichloroethane	11.002	97	200356	39.20	ug/L		95
45)	cyclohexane	11.112	84	111339	25.26	ug/L	#	72
46)	1,1-dichloropropene	11.175	75	129391	41.16	ug/L		97
47)	carbon tetrachloride	11.201	117	167372	39.07	ug/L		98
48)	isobutyl alcohol	11.165	42	41556	311.56	ug/L		91
51)	n-butyl alcohol	11.904	56	510363	2528.02	ug/L		98
52)	tert-amyl alcohol	11.322	55	59885	189.51	ug/L	#	85
53)	iso-octane	11.511	57	299470	38.10	ug/L		93
54)	benzene	11.427	78	455063	42.43	ug/L		97
55)	tert-amyl methyl ether	11.505	87	123517	47.46	ug/L		93
56)	heptane	11.673	57	43809	29.03	ug/L		81
57)	isopropyl acetate	11.343	87	37785	47.10	ug/L	#	80
58)	1,2-dichloroethane	11.453	62	181018	40.45	ug/L		99
59)	ethyl acrylate	12.124	55	194290	45.45	ug/L		97
60)	trichloroethene	12.129	95	131455	45.36	ug/L		97
61)	2-nitropropane	12.869	41	54384	33.23	ug/L	#	10
63)	methyl methacrylate	12.376	100	42329	50.65	ug/L		92
64)	1,2-dichloropropane	12.418	63	138454	49.96	ug/L		99
65)	dibromomethane	12.517	93	112206	51.49	ug/L		96
66)	methylcyclohexane	12.412	83	199550	34.47	ug/L		94
67)	bromodichloromethane	12.664	83	220488	56.23	ug/L		98
68)	epichlorohydrin	12.973	57	104644	234.87	ug/L		95
69)	cis-1,3-dichloropropene	13.094	75	243537	56.48	ug/L		95
70)	4-methyl-2-pentanone	13.194	58	432595	234.23	ug/L	#	87
71)	3-methyl-1-butanol	13.199	55	417400	996.90	ug/L		94
74)	toluene	13.451	92	391413	38.00	ug/L		98
75)	ethyl methacrylate	13.613	69	236668	38.79	ug/L		97
76)	trans-1,3-dichloropropene	13.629	75	253424	40.06	ug/L		88
77)	1,1,2-trichloroethane	13.839	83	137821	39.04	ug/L		99
78)	2-hexanone	13.985	58	442147	159.81	ug/L		90
79)	tetrachloroethene	13.970	164	141027	35.98	ug/L		98
80)	1,3-dichloropropane	14.006	76	274506	41.83	ug/L		88
81)	butyl acetate	14.054	56	150452	37.48	ug/L		90
82)	dibromochloromethane	14.237	129	212431	43.28	ug/L		100
83)	1,2-dibromoethane	14.379	107	192944	41.73	ug/L		99
84)	n-butyl ether	14.772	57	731946	37.44	ug/L		94
85)	chlorobenzene	14.824	112	548336	44.55	ug/L		97
86)	1,1,1,2-tetrachloroethane	14.887	131	256655	45.31	ug/L		98
87)	ethylbenzene	14.877	91	894574	41.44	ug/L		97
88)	m,p-xylene	14.987	106	704026	88.10	ug/L		91
89)	o-xylene	15.364	106	399477	44.79	ug/L		91
90)	styrene	15.375	104	212165	14.86	ug/L		95
91)	butyl acrylate	15.196	55	425565	36.11	ug/L		96
92)	bromoform	15.595	173	208051	46.49	ug/L		98
93)	isopropylbenzene	15.684	105	1017949	43.36	ug/L		99
94)	cis-1,4-dichloro-2-butene	15.721	75	50129	21.27	ug/L		87
97)	bromobenzene	16.051	156	299149	52.21	ug/L		96
98)	1,1,2,2-tetrachloroethane	15.946	83	378336	55.10	ug/L		100
99)	trans-1,4-dichloro-2-b...	15.978	88	28015	24.28	ug/L		88
100)	1,2,3-trichloropropane	16.030	110	103298	50.48	ug/L		100
101)	n-propylbenzene	16.072	91	1163817	48.45	ug/L		96
102)	2-chlorotoluene	16.198	126	265930	53.16	ug/L		93
103)	4-chlorotoluene	16.303	91	716528	49.15	ug/L		95
104)	1,3,5-trimethylbenzene	16.214	105	841739	45.44	ug/L		99
105)	tert-butylbenzene	16.528	119	718327	48.92	ug/L		94
106)	1,2,4-trimethylbenzene	16.581	105	949287	52.21	ug/L		96
107)	sec-butylbenzene	16.738	105	1132312	48.84	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187634.d
Acq On : 17 Nov 2021 4:39 pm
Operator : thienn
Sample : JD35270-6msd Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:14:03 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

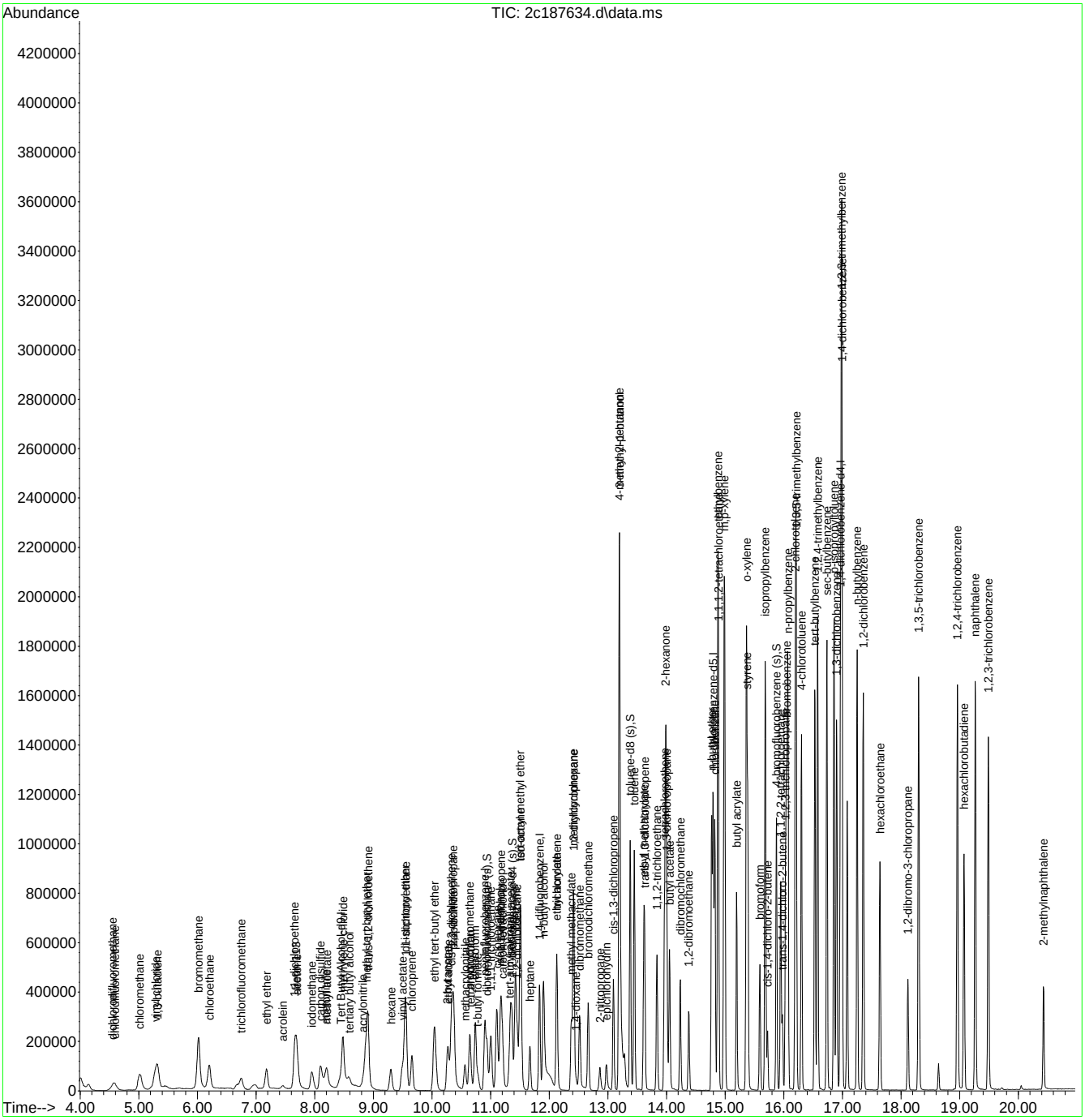
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3-dichlorobenzene	16.900	146	575312	53.87	ug/L	98
109) p-isopropyltoluene	16.859	119	999947	49.73	ug/L	97
110) 1,2,3-trimethylbenzene	16.984	105	1065817	50.77	ug/L	97
111) 1,4-dichlorobenzene	16.995	146	618414	54.30	ug/L	96
112) 1,2-dichlorobenzene	17.357	146	612788	53.01	ug/L	98
113) n-butylbenzene	17.252	92	481572	48.00	ug/L	97
114) 1,2-dibromo-3-chloropr...	18.117	75	95883	42.55	ug/L	85
115) 1,3,5-trichlorobenzene	18.300	180	535166	53.52	ug/L	94
116) 1,2,4-trichlorobenzene	18.961	180	490920	51.75	ug/L	99
117) hexachlorobutadiene	19.076	225	199672	43.34	ug/L	99
118) naphthalene	19.265	128	1259639	47.10	ug/L	99
119) 1,2,3-trichlorobenzene	19.491	180	444020	52.16	ug/L	98
120) hexachloroethane	17.645	201	152278	38.40	ug/L	95
121) 2-methylnaphthalene	20.434	142	192110	17.52	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187634.d
Acq On : 17 Nov 2021 4:39 pm
Operator : thienn
Sample : JD35270-6msd Inst : GCMS2C
Misc : MS55061,V2C8352,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:14:03 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187684.d
Acq On : 18 Nov 2021 6:09 pm
Operator : thienn
Sample : jd34929-13ms Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:18 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.459	65	257728	500.00	ug/L	-0.03
5) pentafluorobenzene	10.902	168	231758	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	375700	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	563252	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	318865	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	126655	52.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.12%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	145213	46.44	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.88%			
73) toluene-d8 (s)	13.382	98	612771	43.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.92%			
96) 4-bromofluorobenzene (s)	15.878	95	266156	53.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.80%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.590	59	126656	210.31	ug/L	95
4) 1,4-dioxane	12.459	88	81039	1748.61	ug/L	92
6) chlorodifluoromethane	4.590	51	89592	23.17	ug/L	97
7) dichlorodifluoromethane	4.548	85	42286	8.72	ug/L	98
8) chloromethane	5.009	50	166122	35.55	ug/L	97
9) vinyl chloride	5.287	62	114242	24.82	ug/L	95
10) 1,3-butadiene	5.324	54	163335	42.41	ug/L	97
11) bromomethane	6.021	94	238666	55.24	ug/L	98
12) chloroethane	6.205	64	142794	48.84	ug/L	94
13) trichlorofluoromethane	6.745	101	113460	19.75	ug/L	97
14) ethyl ether	7.180	74	60877	43.76	ug/L	94
15) acrolein	7.452	56	20288	29.47	ug/L	96
16) freon 113	7.688	151	70859	27.89	ug/L	99
17) 1,1-dichloroethene	7.662	96	86893	31.21	ug/L	84
18) acetone	7.688	58	58281	127.52	ug/L	90
19) iodomethane	7.956	142	215400	42.78	ug/L	99
20) acetonitrile	8.186	41	173512	347.16	ug/L	99
21) carbon disulfide	8.103	76	301250	33.95	ug/L	95
22) methylene chloride	8.485	84	129494	40.92	ug/L	90
23) methyl acetate	8.213	43	94857	33.57	ug/L	95
24) methyl tert butyl ether	8.884	73	363262	40.01	ug/L	97
25) trans-1,2-dichloroethene	8.910	96	108271	38.51	ug/L	89
26) hexane	9.303	56	41391	25.87	ug/L	94
27) di-isopropyl ether	9.544	45	302138	37.34	ug/L	94
28) 1,1-dichloroethane	9.555	63	172802	39.51	ug/L	97
29) chloroprene	9.660	53	106492	30.45	ug/L	91
30) acrylonitrile	8.826	53	50707	35.98	ug/L	91
31) vinyl acetate	9.492	86	22297	51.88	ug/L	94
32) ethyl tert-butyl ether	10.048	59	330037	41.00	ug/L	96
33) 2-butanone	10.268	72	70310	170.32	ug/L #	72
34) ethyl acetate	10.278	45	17672	39.99	ug/L #	88
35) 2,2-dichloropropane	10.368	77	166858	39.55	ug/L	95
36) cis-1,2-dichloroethene	10.331	96	122488	39.81	ug/L	97
37) propionitrile	10.362	54	228611	395.70	ug/L	98
38) bromochloromethane	10.645	128	67846	43.33	ug/L	88
39) tetrahydrofuran	10.661	71	20942	41.71	ug/L #	82
40) chloroform	10.740	83	195282	40.90	ug/L	98
41) t-butyl formate	10.787	59	22135	10.41	ug/L	97
43) methacrylonitrile	10.567	67	48892	40.09	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187684.d
Acq On : 18 Nov 2021 6:09 pm
Operator : thienn
Sample : jd34929-13ms Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:18 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	11.002	97	181448	36.19	ug/L		96
45) cyclohexane	11.112	84	93003	21.51	ug/L	#	66
46) 1,1-dichloropropene	11.170	75	121769	39.49	ug/L		98
47) carbon tetrachloride	11.196	117	161506	38.43	ug/L		97
48) isobutyl alcohol	11.164	42	37324	285.26	ug/L		93
51) n-butyl alcohol	11.904	56	411487	2116.88	ug/L		98
52) tert-amyl alcohol	11.322	55	56607	186.05	ug/L	#	76
53) iso-octane	11.510	57	274759	36.30	ug/L		96
54) benzene	11.427	78	435267	42.15	ug/L		96
55) tert-amyl methyl ether	11.505	87	111241	44.39	ug/L		96
56) heptane	11.668	57	41042	28.25	ug/L		96
57) isopropyl acetate	11.348	87	34099	44.15	ug/L	#	73
58) 1,2-dichloroethane	11.458	62	167461	38.87	ug/L		98
59) ethyl acrylate	12.124	55	177662	43.17	ug/L		96
60) trichloroethene	12.134	95	127075	45.54	ug/L		96
61) 2-nitropropane	12.868	41	45928	29.15	ug/L	#	9
63) methyl methacrylate	12.376	100	40566	50.41	ug/L	#	86
64) 1,2-dichloropropane	12.418	63	128238	48.06	ug/L		94
65) dibromomethane	12.517	93	103020	49.10	ug/L		96
66) methylcyclohexane	12.412	83	183871	32.98	ug/L		91
67) bromodichloromethane	12.664	83	191909	50.83	ug/L		99
68) epichlorohydrin	12.979	57	85787	199.97	ug/L		97
69) cis-1,3-dichloropropene	13.094	75	223658	53.87	ug/L		92
70) 4-methyl-2-pentanone	13.199	58	376833	211.91	ug/L		87
71) 3-methyl-1-butanol	13.199	55	366769	909.77	ug/L		96
74) toluene	13.450	92	363365	37.47	ug/L		97
75) ethyl methacrylate	13.613	69	214859	37.41	ug/L		93
76) trans-1,3-dichloropropene	13.629	75	228876	38.43	ug/L		90
77) 1,1,2-trichloroethane	13.838	83	128417	38.65	ug/L		97
78) 2-hexanone	13.990	58	379164	145.58	ug/L		90
79) tetrachloroethene	13.969	164	137634	37.30	ug/L		98
80) 1,3-dichloropropane	14.006	76	250019	40.48	ug/L		86
81) butyl acetate	14.053	56	127812	33.82	ug/L		91
82) dibromochloromethane	14.237	129	196482	42.52	ug/L		99
83) 1,2-dibromoethane	14.384	107	183718	42.20	ug/L		99
84) n-butyl ether	14.772	57	616227	33.48	ug/L		95
85) chlorobenzene	14.824	112	502155	43.34	ug/L		95
86) 1,1,1,2-tetrachloroethane	14.887	131	226874	42.55	ug/L		99
87) ethylbenzene	14.877	91	792888	39.02	ug/L		97
88) m,p-xylene	14.987	106	626476	83.28	ug/L		91
89) o-xylene	15.364	106	360416	42.93	ug/L		94
90) styrene	15.375	104	576765	42.92	ug/L		91
91) butyl acrylate	15.196	55	350451	31.59	ug/L		95
92) bromoform	15.595	173	188977	44.86	ug/L		99
93) isopropylbenzene	15.684	105	884202	40.00	ug/L		98
94) cis-1,4-dichloro-2-butene	15.726	75	39306	17.71	ug/L	#	87
97) bromobenzene	16.051	156	273537	53.04	ug/L		94
98) 1,1,2,2-tetrachloroethane	15.951	83	330943	53.55	ug/L		99
99) trans-1,4-dichloro-2-b...	15.978	88	22060	21.24	ug/L	#	83
100) 1,2,3-trichloropropane	16.030	110	89371	48.52	ug/L		97
101) n-propylbenzene	16.072	91	1011786	46.79	ug/L		95
102) 2-chlorotoluene	16.198	126	241437	53.62	ug/L		87
103) 4-chlorotoluene	16.303	91	630335	48.03	ug/L		95
104) 1,3,5-trimethylbenzene	16.214	105	794896	47.67	ug/L		97
105) tert-butylbenzene	16.533	119	627929	47.51	ug/L		91
106) 1,2,4-trimethylbenzene	16.581	105	822977	50.29	ug/L		95
107) sec-butylbenzene	16.738	105	968113	46.40	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187684.d
Acq On : 18 Nov 2021 6:09 pm
Operator : thienn
Sample : jd34929-13ms Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:18 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

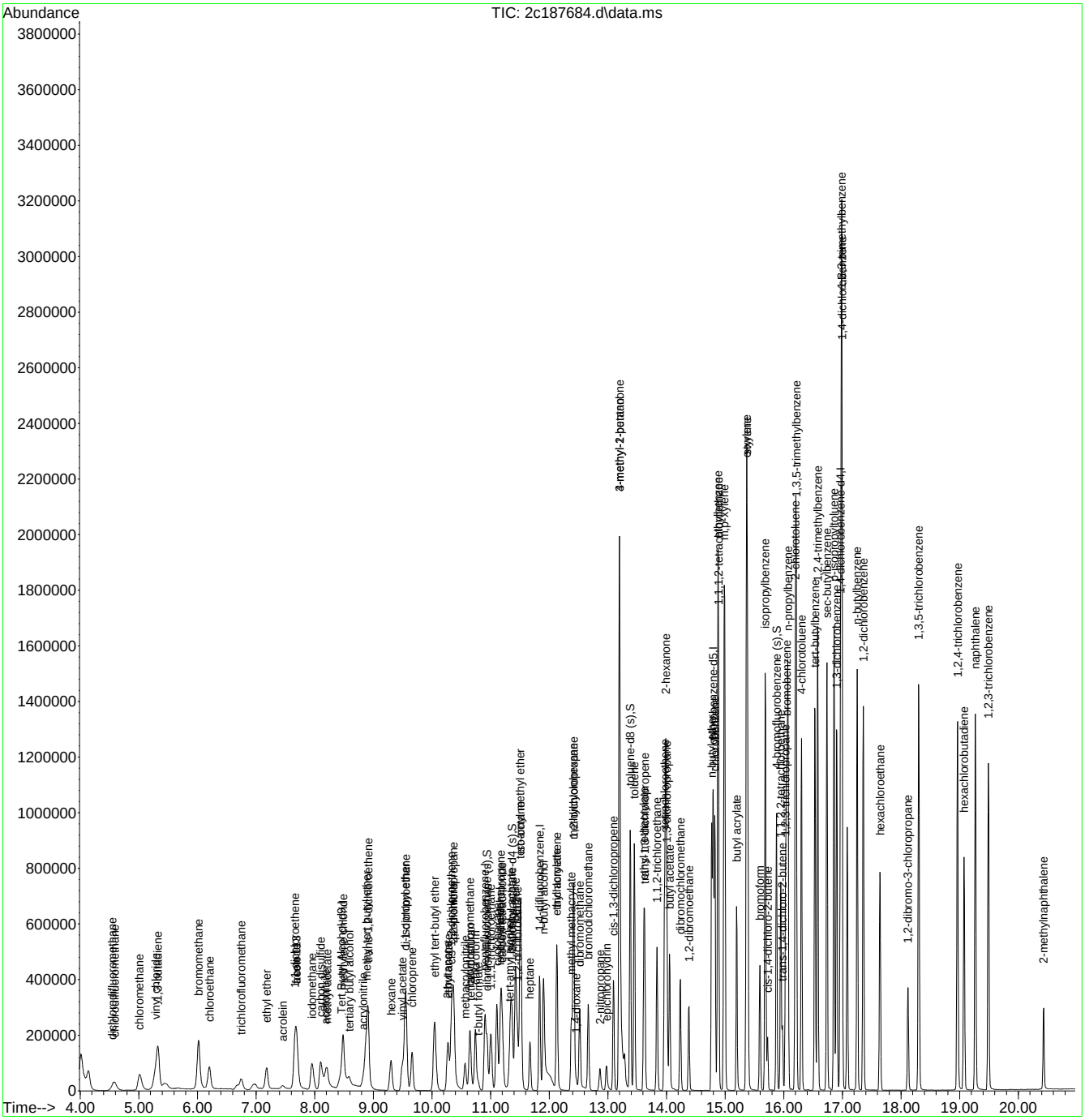
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3-dichlorobenzene	16.906	146	524507	54.57	ug/L	97
109) p-isopropyltoluene	16.858	119	866478	47.87	ug/L	97
110) 1,2,3-trimethylbenzene	16.984	105	937242	49.60	ug/L	97
111) 1,4-dichlorobenzene	16.995	146	556698	54.31	ug/L	97
112) 1,2-dichlorobenzene	17.356	146	551663	53.02	ug/L	96
113) n-butylbenzene	17.252	92	404027	44.74	ug/L	99
114) 1,2-dibromo-3-chloropr...	18.117	75	79282	39.09	ug/L	84
115) 1,3,5-trichlorobenzene	18.300	180	468381	52.04	ug/L	95
116) 1,2,4-trichlorobenzene	18.966	180	417043	48.84	ug/L	97
117) hexachlorobutadiene	19.076	225	175184	42.25	ug/L	98
118) naphthalene	19.270	128	1060174	44.04	ug/L	99
119) 1,2,3-trichlorobenzene	19.490	180	374004	48.81	ug/L	99
120) hexachloroethane	17.645	201	134275	37.65	ug/L	95
121) 2-methylnaphthalene	20.434	142	135091	13.69	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187684.d
Acq On : 18 Nov 2021 6:09 pm
Operator : thienn
Sample : jd34929-13ms Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:18 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187685.d
Acq On : 18 Nov 2021 6:39 pm
Operator : thienn
Sample : jd34929-13msd Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:45 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.459	65	209169	500.00	ug/L	-0.03
5) pentafluorobenzene	10.902	168	180828	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.835	114	294638	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	440582	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	254102	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	96789	50.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.98%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	112332	45.81	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.62%			
73) toluene-d8 (s)	13.382	98	471981	43.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.58%			
96) 4-bromofluorobenzene (s)	15.878	95	211401	53.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.46%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.590	59	144016	294.65	ug/L	94
4) 1,4-dioxane	12.454	88	86844	2308.89	ug/L	90
6) chlorodifluoromethane	4.574	51	97053	32.17	ug/L	94
7) dichlorodifluoromethane	4.548	85	43717	11.55	ug/L	93
8) chloromethane	5.014	50	171640	47.07	ug/L	99
9) vinyl chloride	5.282	62	118557	33.01	ug/L	98
10) 1,3-butadiene	5.318	54	158048	52.60	ug/L	99
11) bromomethane	6.010	94	261965	77.71	ug/L	93
12) chloroethane	6.194	64	143354	62.84	ug/L	93
13) trichlorofluoromethane	6.744	101	115390	25.75	ug/L	94
14) ethyl ether	7.180	74	60034	55.31	ug/L	91
15) acrolein	7.458	56	21420	39.88	ug/L	84
16) freon 113	7.693	151	71321	35.98	ug/L	98
17) 1,1-dichloroethene	7.652	96	87112	40.10	ug/L	86
18) acetone	7.683	58	56945	159.69	ug/L #	82
19) iodomethane	7.950	142	220199	56.04	ug/L	97
20) acetonitrile	8.192	41	184287	472.56	ug/L	93
21) carbon disulfide	8.097	76	310697	44.88	ug/L	97
22) methylene chloride	8.480	84	130189	52.73	ug/L	93
23) methyl acetate	8.207	43	95705	43.41	ug/L	88
24) methyl tert butyl ether	8.878	73	370716	52.33	ug/L	99
25) trans-1,2-dichloroethene	8.910	96	106700	48.64	ug/L	92
26) hexane	9.298	56	39604	31.73	ug/L	96
27) di-isopropyl ether	9.539	45	307541	48.71	ug/L	92
28) 1,1-dichloroethane	9.555	63	171844	50.36	ug/L	99
29) chloroprene	9.660	53	104353	38.24	ug/L	88
30) acrylonitrile	8.826	53	50075	45.54	ug/L	98
31) vinyl acetate	9.487	86	22645	67.53	ug/L	93
32) ethyl tert-butyl ether	10.042	59	338958	53.97	ug/L	95
33) 2-butanone	10.268	72	69370	215.37	ug/L #	83
34) ethyl acetate	10.273	45	17430	50.55	ug/L	96
35) 2,2-dichloropropane	10.362	77	168284	51.12	ug/L	98
36) cis-1,2-dichloroethene	10.331	96	122025	50.83	ug/L	95
37) propionitrile	10.362	54	231739	514.08	ug/L	97
38) bromochloromethane	10.645	128	67647	55.37	ug/L	89
39) tetrahydrofuran	10.661	71	20988	53.57	ug/L	89
40) chloroform	10.734	83	196407	52.73	ug/L	98
41) t-butyl formate	10.782	59	17814	10.74	ug/L	81
43) methacrylonitrile	10.561	67	48394	50.86	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187685.d
Acq On : 18 Nov 2021 6:39 pm
Operator : thienn
Sample : jd34929-13msd Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:45 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	11.002	97	186306	47.62	ug/L		99
45) cyclohexane	11.107	84	93156	27.61	ug/L	#	49
46) 1,1-dichloropropene	11.170	75	119553	49.69	ug/L		95
47) carbon tetrachloride	11.196	117	163517	49.87	ug/L		94
48) isobutyl alcohol	11.164	42	44855	439.37	ug/L		95
51) n-butyl alcohol	11.904	56	459673	3015.38	ug/L		99
52) tert-amyl alcohol	11.327	55	55393	232.15	ug/L	#	84
53) iso-octane	11.510	57	260940	43.96	ug/L		95
54) benzene	11.421	78	431168	53.23	ug/L		98
55) tert-amyl methyl ether	11.505	87	113999	58.00	ug/L		96
56) heptane	11.668	57	40093	35.19	ug/L		88
57) isopropyl acetate	11.348	87	34350	56.71	ug/L	#	61
58) 1,2-dichloroethane	11.453	62	165367	48.94	ug/L		97
59) ethyl acrylate	12.124	55	175092	54.24	ug/L		98
60) trichloroethene	12.129	95	125244	57.23	ug/L		98
61) 2-nitropropane	12.868	41	46145	37.34	ug/L	#	9
63) methyl methacrylate	12.376	100	39710	62.92	ug/L	#	75
64) 1,2-dichloropropane	12.412	63	125400	59.93	ug/L		96
65) dibromomethane	12.517	93	103164	62.69	ug/L		99
66) methylcyclohexane	12.412	83	182082	41.65	ug/L		89
67) bromodichloromethane	12.664	83	190416	64.31	ug/L		97
68) epichlorohydrin	12.978	57	83261	247.48	ug/L		95
69) cis-1,3-dichloropropene	13.094	75	217818	66.90	ug/L		94
70) 4-methyl-2-pentanone	13.193	58	373373	267.73	ug/L		87
71) 3-methyl-1-butanol	13.199	55	374765	1185.36	ug/L		93
74) toluene	13.450	92	357399	47.12	ug/L		99
75) ethyl methacrylate	13.613	69	210892	46.94	ug/L		93
76) trans-1,3-dichloropropene	13.629	75	225503	48.41	ug/L		90
77) 1,1,2-trichloroethane	13.838	83	128264	49.35	ug/L		94
78) 2-hexanone	13.985	58	375570	184.34	ug/L		90
79) tetrachloroethene	13.964	164	135581	46.97	ug/L		97
80) 1,3-dichloropropane	14.006	76	246739	51.07	ug/L		85
81) butyl acetate	14.053	56	126956	42.95	ug/L		95
82) dibromochloromethane	14.237	129	195376	54.05	ug/L		99
83) 1,2-dibromoethane	14.384	107	182789	53.68	ug/L		99
84) n-butyl ether	14.772	57	617558	42.89	ug/L		93
85) chlorobenzene	14.824	112	495587	54.68	ug/L		94
86) 1,1,1,2-tetrachloroethane	14.887	131	226037	54.19	ug/L		98
87) ethylbenzene	14.876	91	789814	49.69	ug/L		96
88) m,p-xylene	14.987	106	625704	106.33	ug/L		89
89) o-xylene	15.364	106	355733	54.17	ug/L		93
90) styrene	15.375	104	570047	54.23	ug/L		91
91) butyl acrylate	15.196	55	353863	40.78	ug/L		94
92) bromoform	15.595	173	189874	57.62	ug/L		99
93) isopropylbenzene	15.684	105	878743	50.83	ug/L		98
94) cis-1,4-dichloro-2-butene	15.726	75	44335	25.54	ug/L	#	82
97) bromobenzene	16.051	156	271673	66.11	ug/L		93
98) 1,1,2,2-tetrachloroethane	15.951	83	328318	66.67	ug/L		99
99) trans-1,4-dichloro-2-b...	15.983	88	24005	29.01	ug/L	#	82
100) 1,2,3-trichloropropane	16.035	110	89198	60.77	ug/L		95
101) n-propylbenzene	16.072	91	1003036	58.21	ug/L		95
102) 2-chlorotoluene	16.198	126	239937	66.87	ug/L		89
103) 4-chlorotoluene	16.303	91	627196	59.97	ug/L		95
104) 1,3,5-trimethylbenzene	16.213	105	794700	59.81	ug/L		97
105) tert-butylbenzene	16.533	119	630407	59.85	ug/L		91
106) 1,2,4-trimethylbenzene	16.580	105	830220	63.66	ug/L		95
107) sec-butylbenzene	16.738	105	984953	59.23	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187685.d
Acq On : 18 Nov 2021 6:39 pm
Operator : thienn
Sample : jd34929-13msd Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:45 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

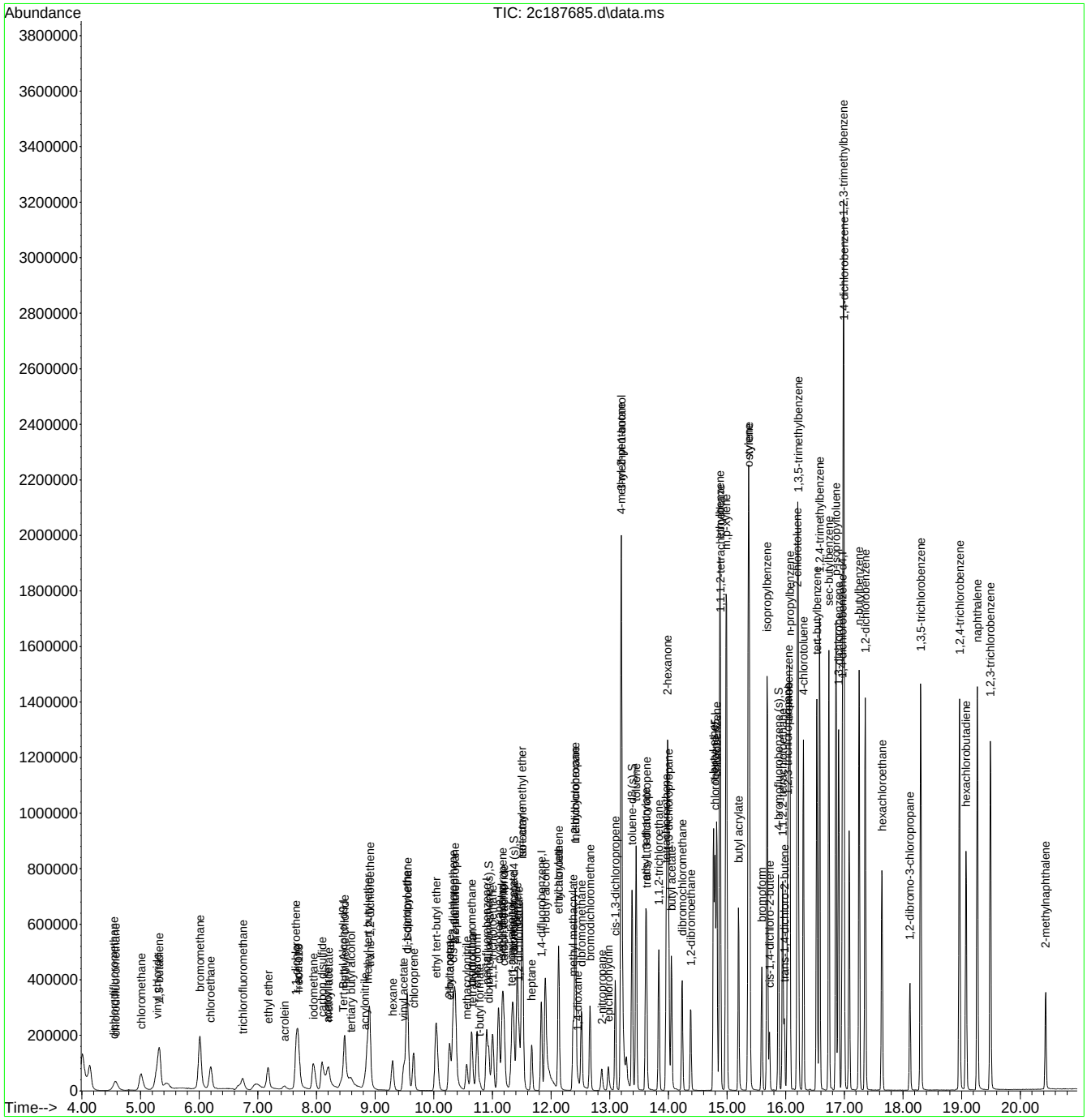
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3-dichlorobenzene	16.905	146	523643	68.36	ug/L	96
109) p-isopropyltoluene	16.858	119	869189	60.26	ug/L	96
110) 1,2,3-trimethylbenzene	16.984	105	947933	62.95	ug/L	97
111) 1,4-dichlorobenzene	16.995	146	556579	68.14	ug/L	97
112) 1,2-dichlorobenzene	17.356	146	556662	67.14	ug/L	98
113) n-butylbenzene	17.252	92	407350	56.60	ug/L	98
114) 1,2-dibromo-3-chloropr...	18.117	75	80194	49.62	ug/L	82
115) 1,3,5-trichlorobenzene	18.305	180	489042	68.18	ug/L	90
116) 1,2,4-trichlorobenzene	18.966	180	440330	64.72	ug/L	97
117) hexachlorobutadiene	19.076	225	182262	55.16	ug/L	99
118) naphthalene	19.270	128	1125972	58.69	ug/L	99
119) 1,2,3-trichlorobenzene	19.490	180	399797	65.48	ug/L	99
120) hexachloroethane	17.645	201	137901	48.05	ug/L	95
121) 2-methylnaphthalene	20.434	142	162168	20.62	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187685.d
Acq On : 18 Nov 2021 6:39 pm
Operator : thienn
Sample : jd34929-13msd Inst : GCMS2C
Misc : MS54975,V2C8354,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

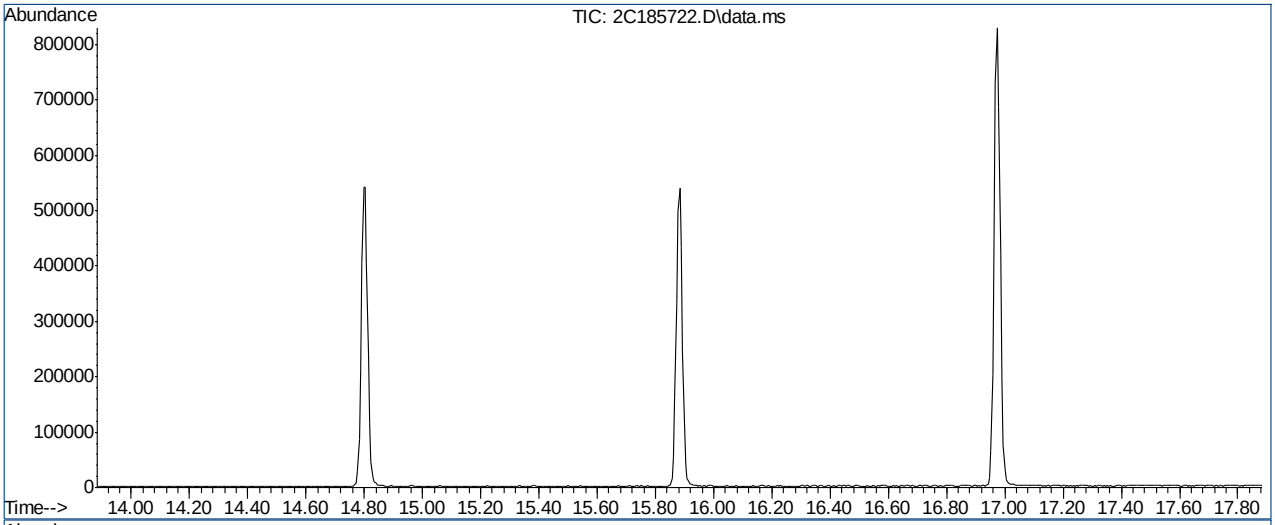
Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:06:45 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V2C8274\2C185722.D Vial: 2
Acq On : 24 Sep 2021 2:39 pm Operator: thienn
Sample : bfb Inst : GCMS2C
Misc : MS53581,V2C8274,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2269, 2270, 2271; Background Corrected with Scan 2261

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.0	19408	PASS
75	95	30	60	50.0	46266	PASS
95	95	100	100	100.0	92557	PASS
96	95	5	9	6.8	6264	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.3	86328	PASS
175	174	5	9	7.8	6698	PASS
176	174	95	101	97.4	84109	PASS
177	176	5	9	6.5	5457	PASS

2C185722.D M2C8274.M Mon Sep 27 17:37:04 2021 RPT1

Average of 15.878 to 15.888 min.: 2C185722.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	874	46.20	49	60.05	850	71.30	45
37.10	4898	47.00	997	61.05	4624	71.90	196
38.05	4642	48.00	464	62.00	4767	72.15	258
39.05	1782	49.05	4274	63.05	3830	73.00	4326
39.90	169	50.10	19408	64.05	356	74.00	16259
40.95	75	51.05	5880	65.80	41	75.00	46266
42.90	83	52.10	281	66.95	328	76.05	4031
43.10	107	55.05	435	67.20	119	77.05	564
44.00	872	56.00	1809	68.00	10503	77.95	357
45.05	1087	57.05	2674	69.00	10109	78.90	4077
46.00	44	58.00	51	70.05	929	80.00	1110

Average of 15.878 to 15.888 min.: 2C185722.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.90	4456	95.00	92557	112.90	138	129.00	63
81.90	951	96.00	6264	114.40	43	129.95	365
83.00	141	97.05	279	114.95	107	130.95	122
85.10	40	103.00	48	116.00	304	134.95	275
86.00	41	103.95	571	116.90	754	135.60	56
86.95	3445	104.95	144	117.95	480	136.90	145
87.95	3218	105.95	663	118.95	729	140.85	1087
90.95	555	106.70	48	124.00	42	141.60	62
92.00	3010	107.00	54	125.70	55	142.00	54
93.00	4421	110.80	78	127.90	391	142.95	1334
94.05	11616	111.70	46	128.80	181	144.95	92

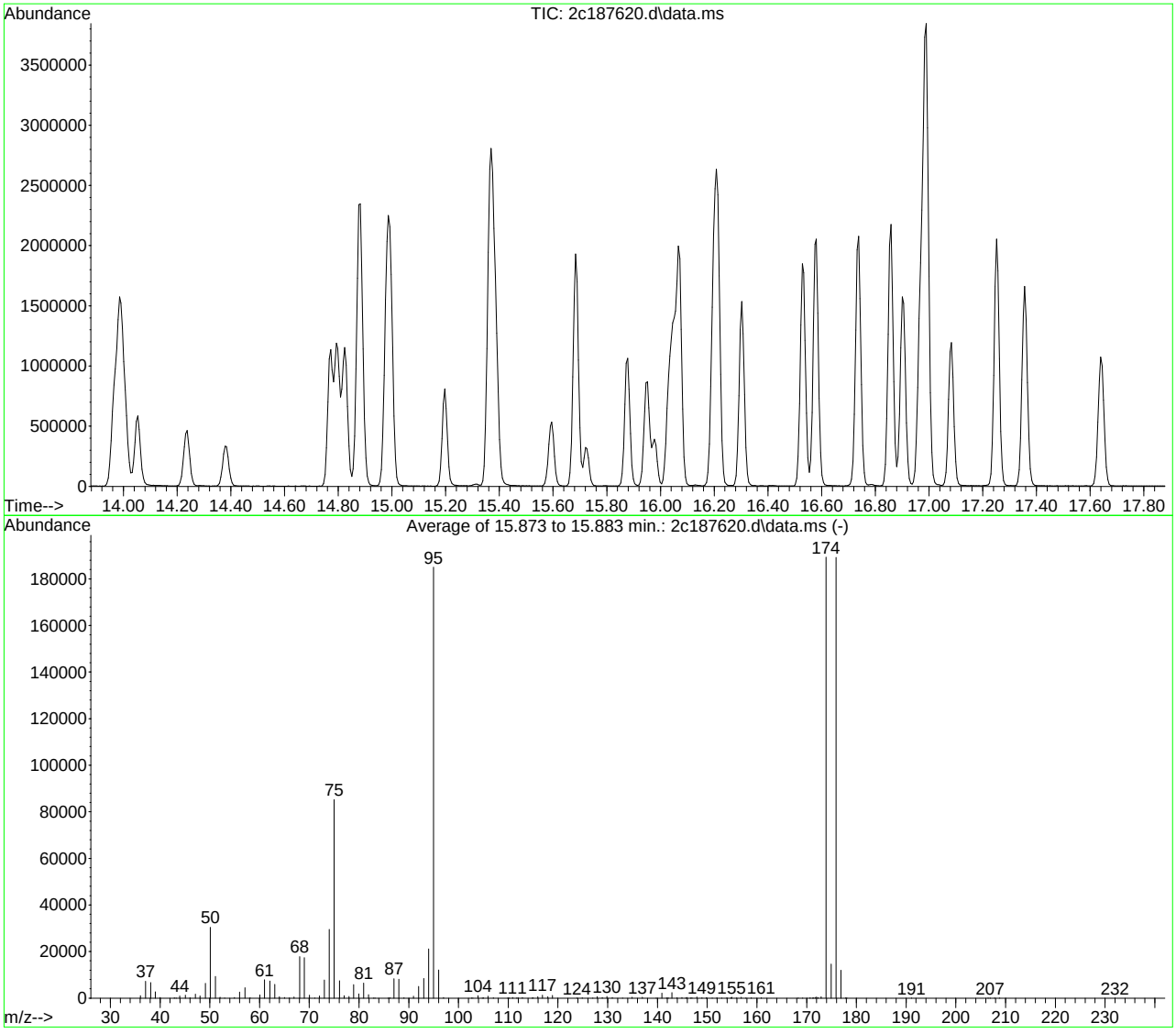
Average of 15.878 to 15.888 min.: 2C185722.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.80	125	161.00	74	206.80	87		
147.80	225	169.90	41	207.90	44		
150.00	52	170.50	41	209.10	69		
151.00	44	171.10	127				
152.10	41	171.55	159				
152.90	49	173.95	86328				
153.90	50	175.00	6698				
154.85	235	175.95	84109				
156.90	71	176.95	5457				
158.85	128	177.85	175				
160.80	44	206.60	45				

SW-846 Method 8260

Data File : C:\msdchem\1\data\da...21\v2c8352\2c187620.d Vial: 4
Acq On : 17 Nov 2021 9:18 am Operator: thienn
Sample : bfb Inst : GCMS2C
Misc : MS54952,V2C8352,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2268, 2269, 2270; Background Corrected with Scan 2259

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	30421	PASS
75	95	30	60	46.0	85197	PASS
95	95	100	100	100.0	185024	PASS
96	95	5	9	6.5	12113	PASS
173	174	0.00	2	0.3	661	PASS
174	95	50	120	102.3	189312	PASS
175	174	5	9	7.7	14610	PASS
176	174	95	101	99.9	189184	PASS
177	176	5	9	6.4	12021	PASS

2c187620.d M2C8274.M Thu Nov 18 02:10:10 2021

Average of 15.873 to 15.883 min.: 2c187620.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1062	48.05	902	61.00	7869	72.05	891
37.10	7247	49.10	6370	62.05	7347	73.00	7771
38.10	6651	50.10	30421	63.05	5913	74.00	29461
39.05	2716	51.10	9312	64.00	669	75.00	85197
40.00	307	52.05	362	65.00	301	76.05	7450
42.85	122	53.00	61	66.00	50	77.00	1036
43.20	57	54.95	246	66.95	535	78.00	680
43.95	988	56.00	2616	68.05	17824	78.90	5786
45.10	1311	57.05	4437	69.00	17418	79.95	1799
46.00	143	58.10	145	70.05	1250	80.95	6483
47.10	1697	60.05	1434	71.10	45	81.90	1469

Average of 15.873 to 15.883 min.: 2c187620.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.95	107	95.00	185024	110.20	67	123.80	54
83.20	53	96.00	12113	110.90	237	124.90	149
85.90	112	97.00	264	111.70	47	127.00	52
86.20	124	102.60	49	111.95	161	127.90	657
87.00	8333	102.90	111	112.85	243	128.90	315
88.00	8138	103.90	1052	114.80	64	129.85	697
89.05	129	104.80	88	115.00	169	130.95	307
90.95	814	105.00	152	115.95	664	133.00	42
92.00	5027	105.95	830	116.90	1245	134.90	386
93.00	8426	107.00	203	117.95	662	136.95	356
94.00	21173	109.90	49	118.90	1122	139.75	109

Average of 15.873 to 15.883 min.: 2c187620.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.90	2116	147.90	484	157.80	96	172.90	661
141.80	98	148.95	136	158.85	200	173.90	189312
142.00	99	149.85	180	160.90	231	174.95	14610
142.20	68	151.00	43	168.30	56	175.90	189184
142.90	2327	151.95	125	169.20	82	176.90	12021
143.95	157	152.95	99	170.70	130	177.90	198
144.90	304	153.95	175	171.20	117	178.10	60
145.70	125	154.80	171	171.40	155	191.10	44
145.95	282	154.95	413	171.80	240	206.50	43
146.70	87	155.90	86	172.00	532	206.90	106
146.95	127	156.85	373	172.30	194	207.80	63

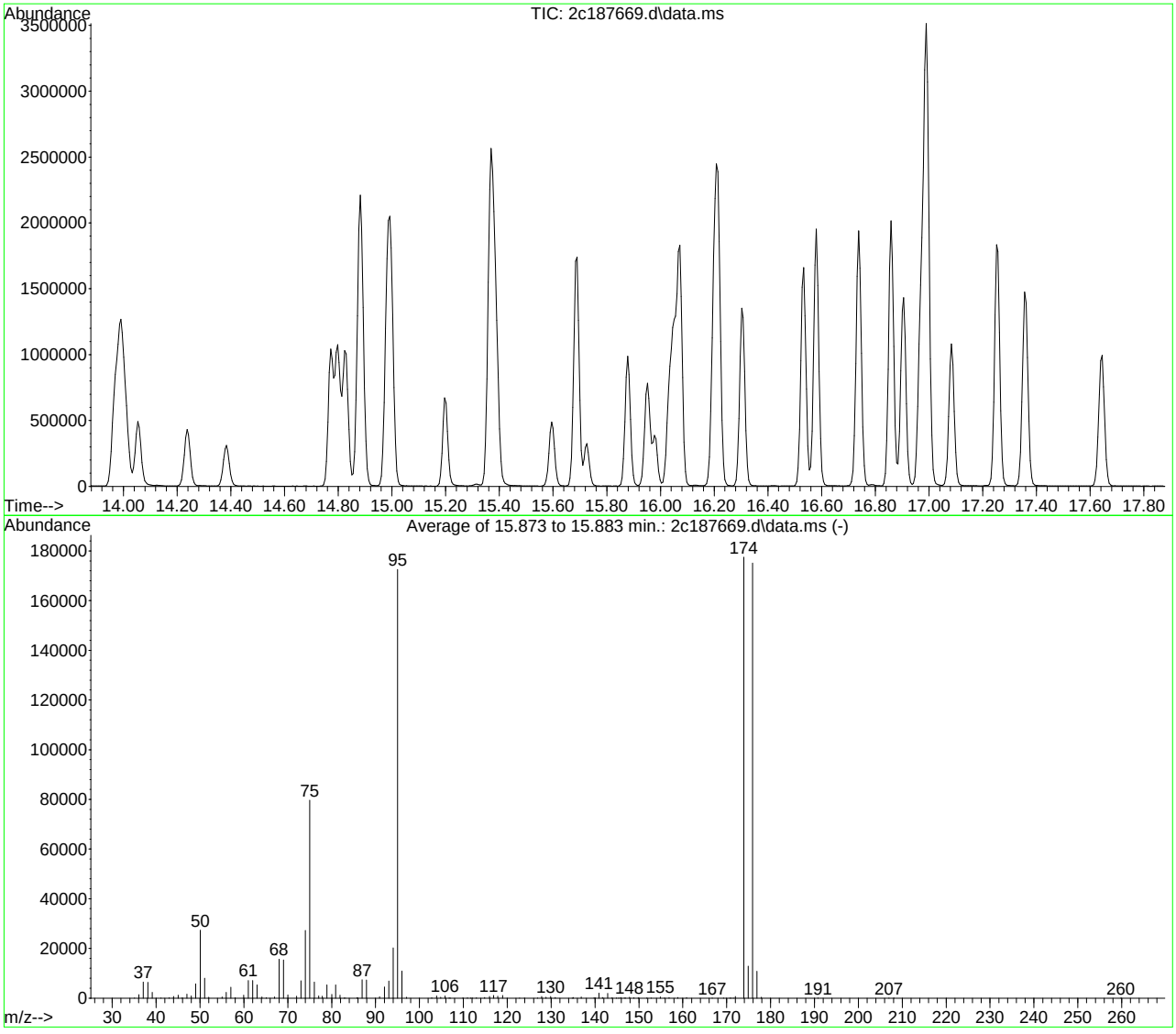
Average of 15.873 to 15.883 min.: 2c187620.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
208.80	52						
232.00	47						

SW-846 Method 8260

Data File : C:\msdchem\1\data\ke...54-partial\2c187669.d Vial: 2
Acq On : 18 Nov 2021 10:30 am Operator: thienn
Sample : BFB Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C8274.M (RTE Integrator)
Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2268, 2269, 2270; Background Corrected with Scan 2260

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	27373	PASS
75	95	30	60	46.2	79648	PASS
95	95	100	100	100.0	172523	PASS
96	95	5	9	6.3	10896	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	102.9	177472	PASS
175	174	5	9	7.3	12885	PASS
176	174	95	101	98.7	175104	PASS
177	176	5	9	6.2	10835	PASS

2c187669.d M2C8274.M Fri Nov 19 02:22:21 2021

Average of 15.873 to 15.883 min.: 2c187669.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	47	48.00	897	62.00	7087	75.00	79648
36.05	1383	49.00	5708	63.00	5378	76.05	6427
37.05	6500	50.05	27373	64.10	514	77.05	915
38.10	6396	51.05	8051	65.10	171	77.85	800
39.10	2381	52.00	332	67.00	433	78.90	5291
41.10	100	55.05	470	68.00	15642	80.00	1511
42.95	163	56.00	2297	69.00	15403	80.90	5317
44.00	658	57.00	4386	70.00	1287	81.90	1212
45.05	1207	58.00	173	72.00	820	82.85	105
45.95	127	59.95	1205	73.00	6977	83.10	65
47.00	1604	61.00	7090	74.00	27275	85.75	119

Average of 15.873 to 15.883 min.: 2c187669.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	73	103.90	893	115.95	629	134.80	97
86.95	7387	104.85	338	116.90	1078	135.05	226
87.95	7327	105.85	912	117.85	759	136.85	435
90.90	551	106.80	119	118.95	1066	139.80	120
92.00	4483	107.00	68	122.80	40	140.10	44
93.00	6903	109.90	72	123.90	50	140.90	2055
94.00	20208	110.90	194	126.90	48	141.70	235
95.00	172523	111.70	42	127.85	649	142.90	1875
96.00	10896	112.05	89	128.85	367	143.85	115
97.05	336	112.95	150	129.90	693	144.90	78
102.80	123	114.85	218	130.95	271	145.40	51

Average of 15.873 to 15.883 min.: 2c187669.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
145.85	265	158.85	240	176.90	10835		
146.70	60	160.85	275	177.90	384		
146.95	90	166.70	45	190.80	53		
147.85	392	169.30	47	206.95	67		
148.85	118	170.70	50	208.10	53		
149.85	173	171.00	50	259.80	57		
151.80	101	171.50	77				
152.80	52	171.95	685				
154.90	486	173.90	177472				
155.80	43	174.90	12885				
156.85	296	175.90	175104				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185723.D
Acq On : 24 Sep 2021 4:44 pm
Operator : thienn
Sample : ic8274-0.2
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 17:38:25 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:02:49 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.496	65	292244	500.00	ug/L		0.00
5) pentafluorobenzene	10.913	168	189186	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	266710	50.00	ug/L		0.00
72) chlorobenzene-d5	14.803	117	264107	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	188092	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.949	113	100848	50.42	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	113449	51.79	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.58%				
73) toluene-d8 (s)	13.387	98	328212	50.05	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.10%				
96) 4-bromofluorobenzene (s)	15.883	95	144884	49.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.56%				
Target Compounds							Qvalue
25) trans-1,2-dichloroethene	8.931	96	424	0.18	ug/L	#	58
27) di-isopropyl ether	9.560	45	1370	0.19	ug/L		60
28) 1,1-dichloroethane	9.576	63	611	0.16	ug/L		72
32) ethyl tert-butyl ether	10.058	59	1137	0.16	ug/L	#	61
35) 2,2-dichloropropane	10.368	77	687	0.19	ug/L	#	48
45) cyclohexane	11.128	84	670	0.17	ug/L	#	12
46) 1,1-dichloropropene	11.175	75	445	0.16	ug/L	#	40
47) carbon tetrachloride	11.217	117	631	0.16	ug/L	#	17
60) trichloroethene	12.140	95	375	0.17	ug/L	#	29
66) methylcyclohexane	12.412	83	730	0.17	ug/L	#	64
70) 4-methyl-2-pentanone	13.204	58	907	0.65	ug/L	#	61
74) toluene	13.461	92	800	0.16	ug/L	#	61
76) trans-1,3-dichloropropene	13.634	75	531	0.17	ug/L	#	59
77) 1,1,2-trichloroethane	13.844	83	337	0.21	ug/L	#	47
80) 1,3-dichloropropane	14.011	76	492	0.16	ug/L	#	50
81) butyl acetate	14.064	56	427	0.24	ug/L	#	17
83) 1,2-dibromoethane	14.389	107	387	0.17	ug/L		70
84) n-butyl ether	14.782	57	1889	0.21	ug/L	#	1
85) chlorobenzene	14.835	112	975	0.17	ug/L		82
87) ethylbenzene	14.882	91	1902	0.19	ug/L		84
88) m,p-xylene	14.992	106	1249	0.32	ug/L		88
89) o-xylene	15.369	106	750	0.18	ug/L		86
90) styrene	15.385	104	1024	0.15	ug/L		85
91) butyl acrylate	15.207	55	1168	0.22	ug/L		90
93) isopropylbenzene	15.694	105	1921	0.17	ug/L		92
97) bromobenzene	16.056	156	607	0.18	ug/L		85
101) n-propylbenzene	16.072	91	2657	0.19	ug/L		97
103) 4-chlorotoluene	16.308	91	1291	0.15	ug/L		86
106) 1,2,4-trimethylbenzene	16.586	105	1772	0.17	ug/L		99
108) 1,3-dichlorobenzene	16.906	146	1099	0.18	ug/L		86
112) 1,2-dichlorobenzene	17.367	146	1153	0.17	ug/L		84
113) n-butylbenzene	17.262	92	1233	0.21	ug/L		81

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185723.D
Acq On : 24 Sep 2021 4:44 pm
Operator : thienn
Sample : ic8274-0.2
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 17:38:25 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:02:49 2021
Response via : Initial Calibration

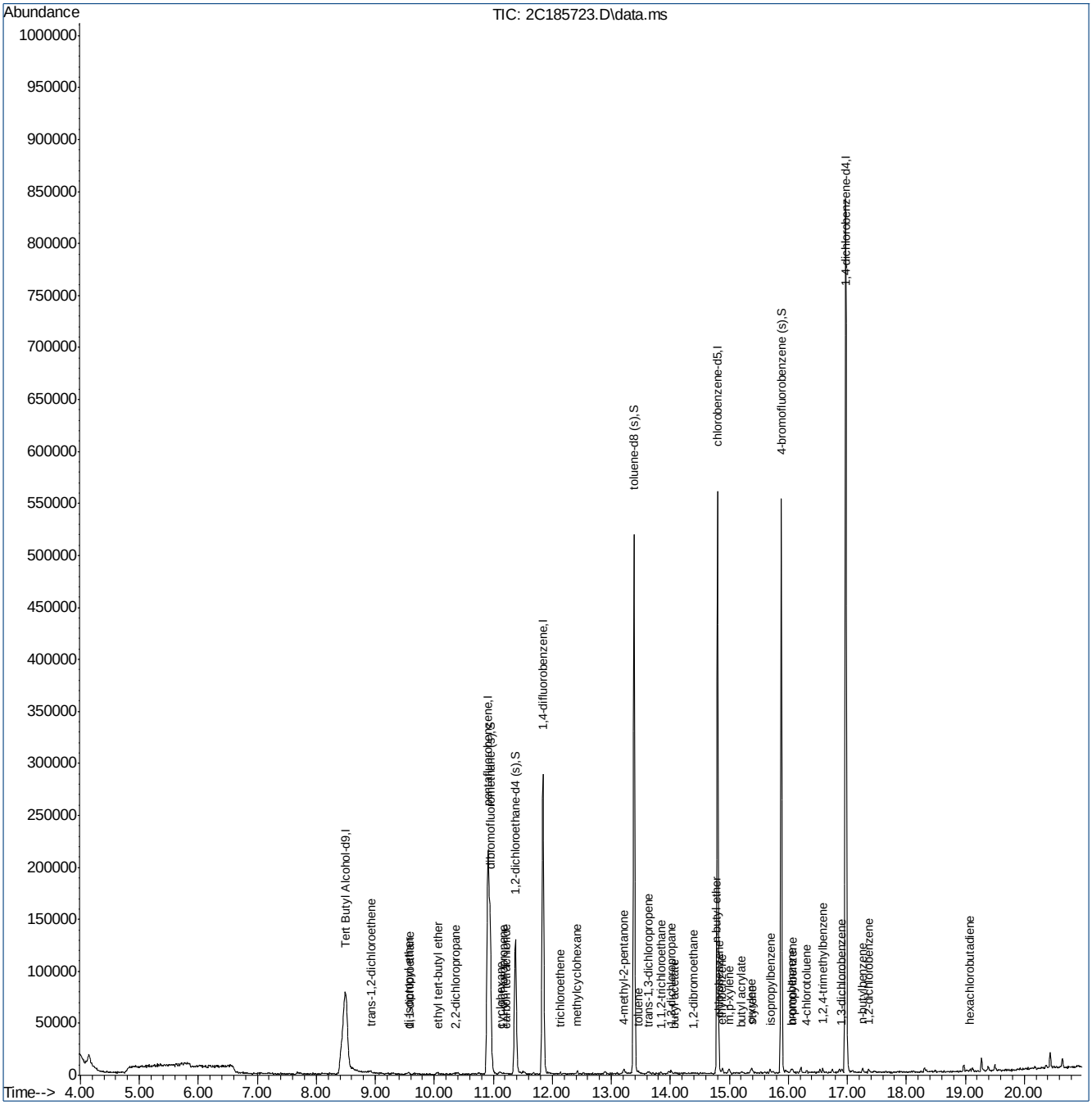
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
117) hexachlorobutadiene	19.081	225	516	0.19	ug/L	88

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185723.D
Acq On : 24 Sep 2021 4:44 pm
Operator : thienn
Sample : ic8274-0.2
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 17:38:25 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:02:49 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185724.D
Acq On : 24 Sep 2021 5:13 pm
Operator : thienn
Sample : ic8274-0.5
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 17:39:28 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.490	65	279211	500.00	ug/L		0.00
5) pentafluorobenzene	10.907	168	181905	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.835	114	256827	50.00	ug/L		0.00
72) chlorobenzene-d5	14.798	117	260082	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	183800	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.949	113	95462	49.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%				
50) 1,2-dichloroethane-d4 (s)	11.369	65	107995	51.19	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.38%				
73) toluene-d8 (s)	13.387	98	319355	49.46	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.92%				
96) 4-bromofluorobenzene (s)	15.883	95	144401	50.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.595	51	1425	0.46	ug/L	#	35
9) vinyl chloride	5.271	62	1691	0.42	ug/L		82
16) freon 113	7.683	151	924	0.44	ug/L	#	67
17) 1,1-dichloroethene	7.667	96	1278	0.60	ug/L		91
18) acetone	7.709	58	716	1.82	ug/L	#	44
19) iodomethane	7.966	142	2054	0.49	ug/L		81
21) carbon disulfide	8.113	76	3661	0.50	ug/L		85
22) methylene chloride	8.506	84	1353	0.54	ug/L	#	55
24) methyl tert butyl ether	8.899	73	3595	0.47	ug/L		89
25) trans-1,2-dichloroethene	8.931	96	1273	0.56	ug/L	#	78
27) di-isopropyl ether	9.565	45	3375	0.49	ug/L		68
28) 1,1-dichloroethane	9.555	63	1717	0.46	ug/L		85
29) chloroprene	9.670	53	1448	0.49	ug/L	#	59
32) ethyl tert-butyl ether	10.037	59	3237	0.47	ug/L		76
33) 2-butanone	10.284	72	610	1.69	ug/L	#	1
35) 2,2-dichloropropane	10.367	77	1967	0.56	ug/L		65
36) cis-1,2-dichloroethene	10.341	96	1527	0.63	ug/L	#	72
37) propionitrile	10.373	54	2099	4.30	ug/L		92
38) bromochloromethane	10.651	128	723	0.56	ug/L	#	51
40) chloroform	10.740	83	1922	0.49	ug/L		88
44) 1,1,1-trichloroethane	11.002	97	2116	0.50	ug/L		99
45) cyclohexane	11.112	84	1770	0.45	ug/L		85
46) 1,1-dichloropropene	11.175	75	1141	0.44	ug/L		80
47) carbon tetrachloride	11.212	117	1466	0.39	ug/L	#	75
51) n-butyl alcohol	11.930	56	3504	24.84	ug/L	#	76
54) benzene	11.427	78	3836	0.51	ug/L		83
55) tert-amyl methyl ether	11.516	87	868	0.47	ug/L	#	57
58) 1,2-dichloroethane	11.468	62	1591	0.53	ug/L		82
59) ethyl acrylate	12.134	55	1406	0.48	ug/L		74
60) trichloroethene	12.134	95	832	0.40	ug/L		80
62) 2-chloroethyl vinyl ether	12.889	63	2493	2.13	ug/L		83
64) 1,2-dichloropropane	12.423	63	919	0.48	ug/L	#	45

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185724.D
Acq On : 24 Sep 2021 5:13 pm
Operator : thienn
Sample : ic8274-0.5
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 17:39:28 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

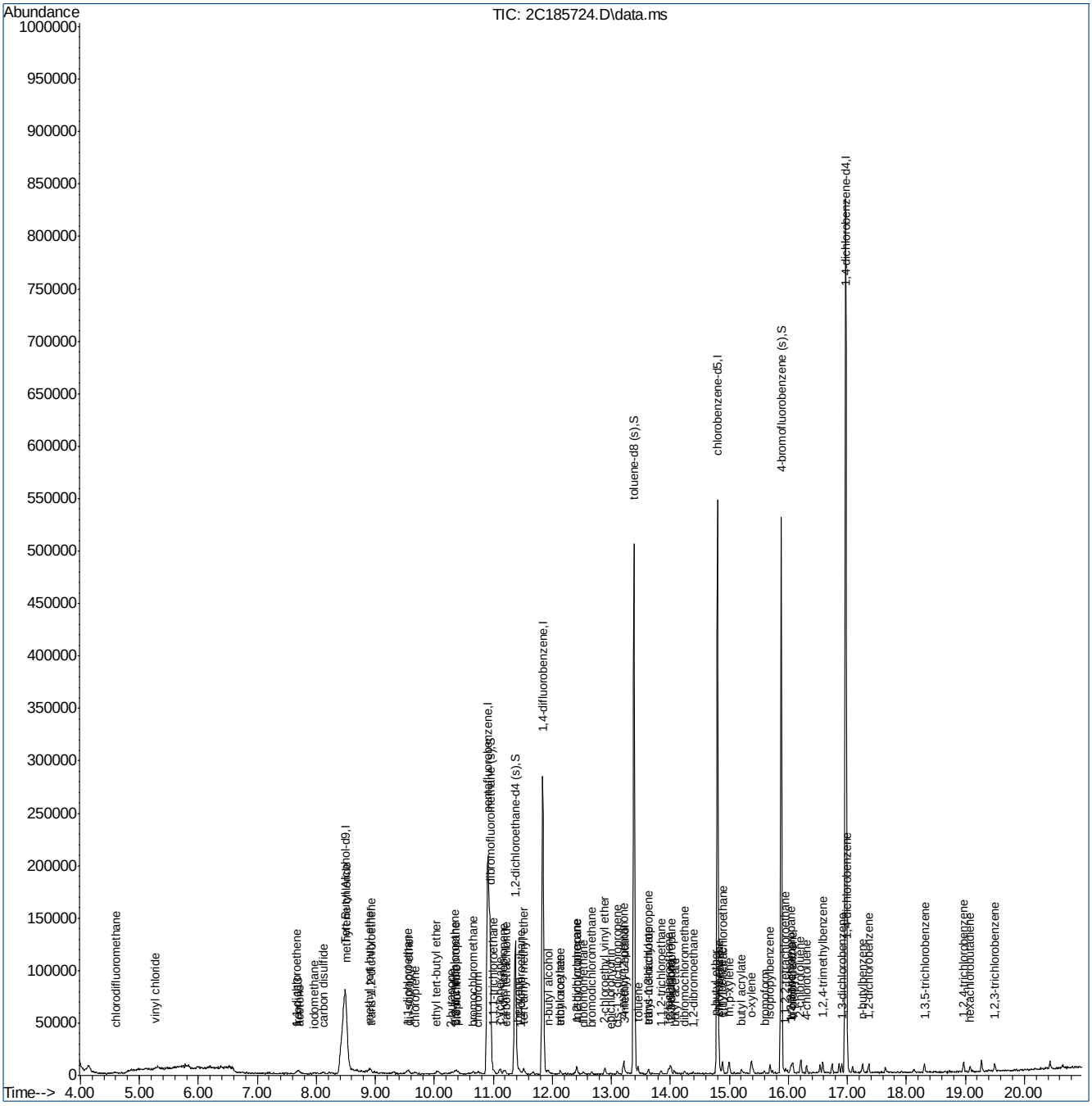
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
65) dibromomethane	12.522	93	656	0.42	ug/L	#	70
66) methylcyclohexane	12.423	83	1909	0.46	ug/L		88
67) bromodichloromethane	12.669	83	1448	0.52	ug/L		74
68) epichlorohydrin	12.989	57	716	2.25	ug/L		63
69) cis-1,3-dichloropropene	13.094	75	1442	0.46	ug/L		69
70) 4-methyl-2-pentanone	13.204	58	2162	1.61	ug/L		91
71) 3-methyl-1-butanol	13.225	55	3196	11.20	ug/L	#	73
74) toluene	13.456	92	2501	0.52	ug/L		94
75) ethyl methacrylate	13.623	69	1367	0.49	ug/L		75
76) trans-1,3-dichloropropene	13.634	75	1470	0.49	ug/L		80
77) 1,1,2-trichloroethane	13.844	83	768	0.48	ug/L	#	81
78) 2-hexanone	14.001	58	2262	1.75	ug/L		99
79) tetrachloroethene	13.975	164	849	0.47	ug/L		82
80) 1,3-dichloropropane	14.011	76	1473	0.49	ug/L		85
81) butyl acetate	14.074	56	742	0.42	ug/L	#	58
82) dibromochloromethane	14.237	129	937	0.39	ug/L		94
83) 1,2-dibromoethane	14.389	107	953	0.43	ug/L		97
84) n-butyl ether	14.772	57	4349	0.49	ug/L		91
85) chlorobenzene	14.835	112	2670	0.47	ug/L		85
86) 1,1,1,2-tetrachloroethane	14.887	131	1205	0.45	ug/L		81
87) ethylbenzene	14.882	91	4629	0.46	ug/L		99
88) m,p-xylene	14.992	106	3588	0.94	ug/L		92
89) o-xylene	15.369	106	1686	0.40	ug/L		91
91) butyl acrylate	15.202	55	2995	0.58	ug/L		84
92) bromoform	15.600	173	1017	0.46	ug/L		69
93) isopropylbenzene	15.689	105	4712	0.41	ug/L		94
97) bromobenzene	16.056	156	1455	0.45	ug/L	#	78
98) 1,1,2,2-tetrachloroethane	15.957	83	1598	0.40	ug/L		98
100) 1,2,3-trichloropropane	16.040	110	634	0.57	ug/L		90
101) n-propylbenzene	16.077	91	6302	0.46	ug/L		96
102) 2-chlorotoluene	16.203	126	1250	0.43	ug/L		91
103) 4-chlorotoluene	16.308	91	3812	0.46	ug/L		87
106) 1,2,4-trimethylbenzene	16.586	105	4582	0.44	ug/L		89
108) 1,3-dichlorobenzene	16.911	146	2748	0.45	ug/L		94
111) 1,4-dichlorobenzene	16.995	146	2833	0.45	ug/L		94
112) 1,2-dichlorobenzene	17.362	146	3170	0.49	ug/L		89
113) n-butylbenzene	17.262	92	2557	0.45	ug/L		94
115) 1,3,5-trichlorobenzene	18.311	180	2503	0.44	ug/L		86
116) 1,2,4-trichlorobenzene	18.971	180	2554	0.47	ug/L		92
117) hexachlorobutadiene	19.081	225	1159	0.44	ug/L		77
119) 1,2,3-trichlorobenzene	19.496	180	2216	0.45	ug/L		81

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185724.D
Acq On : 24 Sep 2021 5:13 pm
Operator : thienn
Sample : ic8274-0.5
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 17:39:28 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185725.D
Acq On : 24 Sep 2021 5:42 pm
Operator : thienn
Sample : ic8274-1
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 17:40:44 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.490	65	275336	500.00	ug/L		0.00
5) pentafluorobenzene	10.908	168	185660	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	267444	50.00	ug/L		0.00
72) chlorobenzene-d5	14.803	117	270458	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	192416	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.944	113	97347	49.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	111482	50.75	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.50%				
73) toluene-d8 (s)	13.387	98	334003	49.74	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.48%				
96) 4-bromofluorobenzene (s)	15.883	95	152439	50.68	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.36%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.616	59	3231	4.70	ug/L		75
6) chlorodifluoromethane	4.579	51	3108	0.97	ug/L		63
8) chloromethane	5.020	50	4197	1.12	ug/L		75
9) vinyl chloride	5.287	62	3360	0.81	ug/L		84
10) 1,3-butadiene	5.318	54	3028	0.98	ug/L	#	79
11) bromomethane	6.016	94	3994	1.16	ug/L		93
12) chloroethane	6.210	64	2185	0.87	ug/L		77
14) ethyl ether	7.195	74	795	0.67	ug/L	#	78
16) freon 113	7.694	151	2080	0.96	ug/L	#	59
17) 1,1-dichloroethene	7.667	96	2261	1.04	ug/L	#	50
18) acetone	7.699	58	1381	3.44	ug/L	#	40
19) iodomethane	7.961	142	3685	0.86	ug/L		87
21) carbon disulfide	8.113	76	6578	0.87	ug/L		96
22) methylene chloride	8.490	84	2454	0.96	ug/L		85
24) methyl tert butyl ether	8.889	73	6782	0.87	ug/L		85
25) trans-1,2-dichloroethene	8.920	96	2167	0.94	ug/L		78
26) hexane	9.308	56	1246	0.95	ug/L	#	59
27) di-isopropyl ether	9.560	45	5640	0.81	ug/L		99
28) 1,1-dichloroethane	9.565	63	3320	0.87	ug/L		88
29) chloroprene	9.665	53	2503	0.84	ug/L		76
32) ethyl tert-butyl ether	10.037	59	6006	0.85	ug/L		83
33) 2-butanone	10.289	72	1088	2.95	ug/L	#	6
35) 2,2-dichloropropane	10.373	77	2818	0.79	ug/L		83
36) cis-1,2-dichloroethene	10.336	96	2525	1.02	ug/L		88
37) propionitrile	10.388	54	4438	8.91	ug/L		87
38) bromochloromethane	10.651	128	1122	0.85	ug/L	#	68
40) chloroform	10.755	83	3878	0.97	ug/L		98
43) methacrylonitrile	10.572	67	870	0.82	ug/L		79
44) 1,1,1-trichloroethane	11.012	97	3637	0.85	ug/L		92
45) cyclohexane	11.117	84	2890	0.73	ug/L		92
46) 1,1-dichloropropene	11.185	75	2400	0.91	ug/L		85
47) carbon tetrachloride	11.201	117	2801	0.73	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185725.D
Acq On : 24 Sep 2021 5:42 pm
Operator : thienn
Sample : ic8274-1
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 17:40:44 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
51)	n-butyl alcohol	11.925	56	6362	43.31	ug/L		92
52)	tert-amyl alcohol	11.343	55	1195	5.76	ug/L	#	23
54)	benzene	11.437	78	6591	0.85	ug/L		95
55)	tert-amyl methyl ether	11.526	87	1719	0.90	ug/L	#	55
56)	heptane	11.673	57	1052	0.95	ug/L		79
58)	1,2-dichloroethane	11.469	62	3314	1.06	ug/L		88
59)	ethyl acrylate	12.134	55	2623	0.85	ug/L		87
60)	trichloroethene	12.134	95	1673	0.77	ug/L		85
64)	1,2-dichloropropane	12.423	63	1712	0.85	ug/L		83
65)	dibromomethane	12.522	93	1287	0.79	ug/L		90
66)	methylcyclohexane	12.423	83	3584	0.82	ug/L		88
67)	bromodichloromethane	12.669	83	2134	0.73	ug/L		84
68)	epichlorohydrin	12.979	57	1372	4.14	ug/L		80
69)	cis-1,3-dichloropropene	13.094	75	2730	0.84	ug/L		95
70)	4-methyl-2-pentanone	13.209	58	4658	3.34	ug/L		90
71)	3-methyl-1-butanol	13.209	55	6020	20.25	ug/L		91
74)	toluene	13.456	92	4501	0.89	ug/L	#	77
75)	ethyl methacrylate	13.623	69	2761	0.95	ug/L		92
76)	trans-1,3-dichloropropene	13.634	75	2566	0.82	ug/L		89
77)	1,1,2-trichloroethane	13.844	83	1541	0.92	ug/L		94
78)	2-hexanone	13.996	58	4826	3.59	ug/L	#	82
79)	tetrachloroethene	13.964	164	1662	0.88	ug/L	#	62
80)	1,3-dichloropropane	14.017	76	2813	0.90	ug/L		71
81)	butyl acetate	14.064	56	1720	0.94	ug/L		81
82)	dibromochloromethane	14.242	129	2117	0.85	ug/L		92
83)	1,2-dibromoethane	14.389	107	1789	0.78	ug/L		83
84)	n-butyl ether	14.777	57	8298	0.90	ug/L		93
85)	chlorobenzene	14.829	112	5156	0.87	ug/L		93
86)	1,1,1,2-tetrachloroethane	14.892	131	2223	0.79	ug/L	#	82
87)	ethylbenzene	14.882	91	8853	0.85	ug/L		94
88)	m,p-xylene	14.992	106	6407	1.61	ug/L		84
89)	o-xylene	15.364	106	3970	0.91	ug/L		89
90)	styrene	15.380	104	5757	0.83	ug/L		98
91)	butyl acrylate	15.207	55	4953	0.93	ug/L		86
92)	bromoform	15.595	173	1654	0.72	ug/L		94
93)	isopropylbenzene	15.689	105	9196	0.77	ug/L		95
97)	bromobenzene	16.056	156	2840	0.84	ug/L		96
98)	1,1,2,2-tetrachloroethane	15.951	83	3228	0.77	ug/L		90
100)	1,2,3-trichloropropane	16.035	110	991	0.85	ug/L		73
101)	n-propylbenzene	16.077	91	10856	0.76	ug/L		97
102)	2-chlorotoluene	16.208	126	2144	0.71	ug/L		87
103)	4-chlorotoluene	16.308	91	8270	0.96	ug/L		95
106)	1,2,4-trimethylbenzene	16.580	105	8482	0.78	ug/L		94
108)	1,3-dichlorobenzene	16.906	146	5179	0.81	ug/L		94
111)	1,4-dichlorobenzene	16.995	146	5934	0.90	ug/L		98
112)	1,2-dichlorobenzene	17.362	146	5914	0.87	ug/L		97
113)	n-butylbenzene	17.257	92	4714	0.80	ug/L		91
115)	1,3,5-trichlorobenzene	18.311	180	4550	0.76	ug/L		99
116)	1,2,4-trichlorobenzene	18.971	180	4332	0.76	ug/L		98
117)	hexachlorobutadiene	19.076	225	2120	0.77	ug/L		85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185725.D
Acq On : 24 Sep 2021 5:42 pm
Operator : thienn
Sample : ic8274-1
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 17:40:44 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2,3-trichlorobenzene	19.496	180	4008	0.77	ug/L	90

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

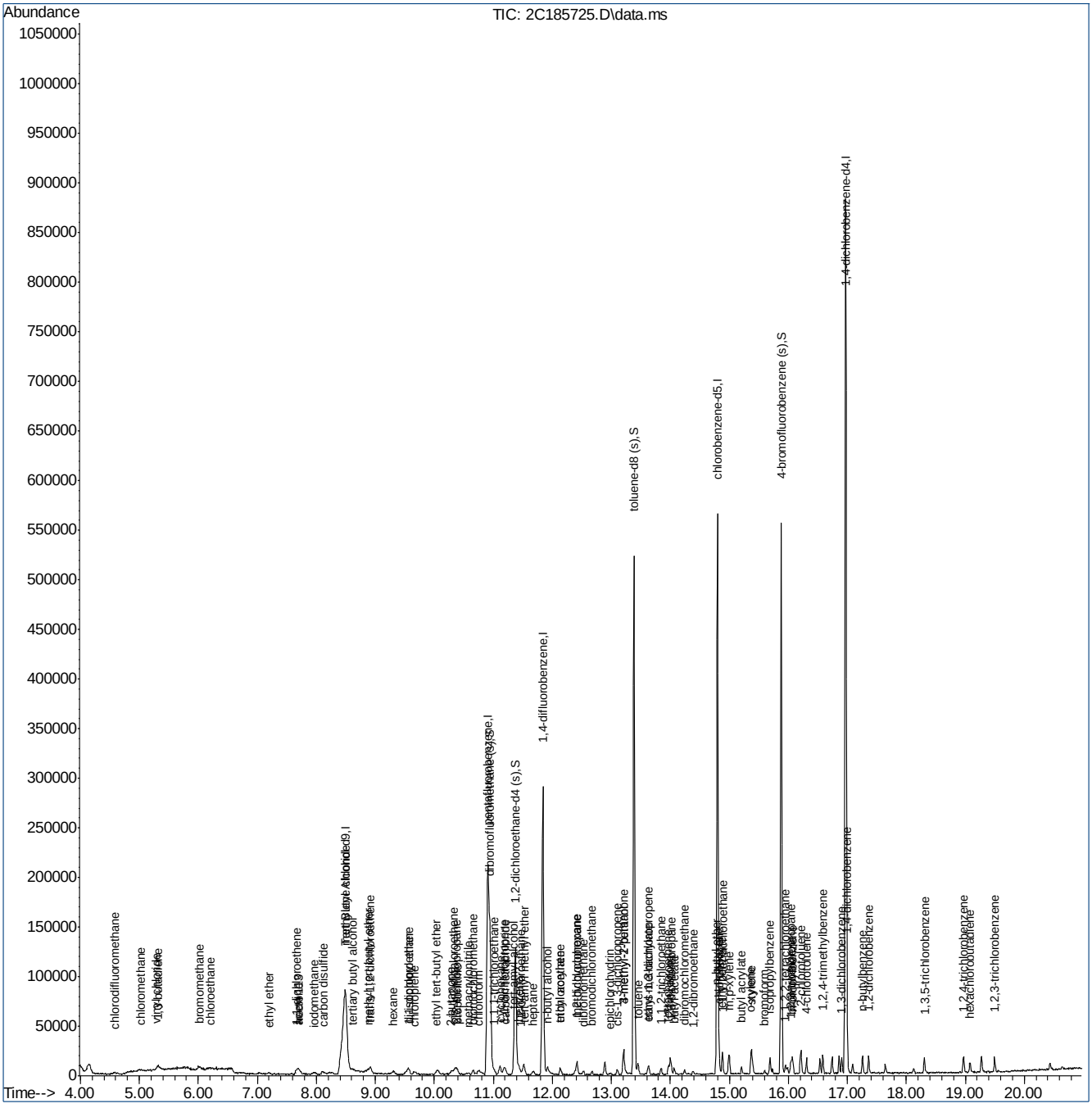
7.6.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185725.D
Acq On : 24 Sep 2021 5:42 pm
Operator : thienn
Sample : ic8274-1
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 27 17:40:44 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185726.D
Acq On : 24 Sep 2021 6:10 pm
Operator : thienn
Sample : ic8274-2
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 09:01:47 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.480	65	285183	500.00	ug/L		-0.01
5) pentafluorobenzene	10.908	168	201039	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	293501	50.00	ug/L		0.00
72) chlorobenzene-d5	14.803	117	291131	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	205680	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.944	113	104594	49.21	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.42%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	122278	50.72	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.44%				
73) toluene-d8 (s)	13.388	98	359722	49.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%				
96) 4-bromofluorobenzene (s)	15.883	95	162301	50.48	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.96%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.632	59	6056	8.51	ug/L		90
4) 1,4-dioxane	12.480	88	1700	32.49	ug/L		74
6) chlorodifluoromethane	4.590	51	6105	1.77	ug/L		92
7) dichlorodifluoromethane	4.522	85	6897	1.49	ug/L		84
8) chloromethane	5.004	50	7609	1.88	ug/L		87
9) vinyl chloride	5.287	62	6800	1.52	ug/L		96
10) 1,3-butadiene	5.313	54	6413	1.91	ug/L		91
11) bromomethane	6.016	94	7973	2.14	ug/L	#	72
12) chloroethane	6.194	64	4509	1.67	ug/L		91
13) trichlorofluoromethane	6.755	101	8288	1.54	ug/L		72
14) ethyl ether	7.185	74	2334	1.83	ug/L		91
15) acrolein	7.473	56	564	0.89	ug/L	#	43
16) freon 113	7.683	151	3917	1.67	ug/L		83
17) 1,1-dichloroethene	7.683	96	4849	2.05	ug/L	#	66
18) acetone	7.725	58	2699	6.20	ug/L	#	76
19) iodomethane	7.961	142	8052	1.73	ug/L		87
20) acetonitrile	8.234	41	8372	19.02	ug/L		94
21) carbon disulfide	8.113	76	13601	1.67	ug/L		95
22) methylene chloride	8.491	84	5131	1.84	ug/L		83
23) methyl acetate	8.239	43	3020	1.21	ug/L		80
24) methyl tert butyl ether	8.889	73	14523	1.72	ug/L		84
25) trans-1,2-dichloroethene	8.926	96	4637	1.86	ug/L		96
26) hexane	9.308	56	2712	1.91	ug/L	#	62
27) di-isopropyl ether	9.550	45	12274	1.62	ug/L		91
28) 1,1-dichloroethane	9.565	63	7316	1.77	ug/L		95
29) chloroprene	9.665	53	5570	1.72	ug/L		81
30) acrylonitrile	8.858	53	1747	1.37	ug/L	#	72
31) vinyl acetate	9.497	86	533	1.33	ug/L	#	1
32) ethyl tert-butyl ether	10.053	59	12375	1.62	ug/L		88
33) 2-butanone	10.273	72	2586	6.47	ug/L	#	61
34) ethyl acetate	10.294	45	701	1.66	ug/L	#	59
35) 2,2-dichloropropane	10.368	77	6333	1.64	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185726.D
Acq On : 24 Sep 2021 6:10 pm
Operator : thienn
Sample : ic8274-2
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 09:01:47 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	10.352	96	4773	1.77	ug/L		81
37) propionitrile	10.373	54	8991	16.66	ug/L		94
38) bromochloromethane	10.651	128	2345	1.65	ug/L	#	76
39) tetrahydrofuran	10.682	71	726	1.55	ug/L	#	55
40) chloroform	10.750	83	7456	1.71	ug/L		97
41) t-butyl formate	10.803	59	2681	1.32	ug/L		74
43) methacrylonitrile	10.572	67	1875	1.64	ug/L	#	83
44) 1,1,1-trichloroethane	11.012	97	7670	1.66	ug/L		84
45) cyclohexane	11.117	84	6366	1.48	ug/L		89
46) 1,1-dichloropropene	11.185	75	4931	1.72	ug/L		90
47) carbon tetrachloride	11.201	117	6282	1.52	ug/L		94
48) isobutyl alcohol	11.117	42	3539	30.41	ug/L	#	19
51) n-butyl alcohol	11.919	56	12927	80.18	ug/L		83
52) tert-amyl alcohol	11.358	55	2350	10.33	ug/L	#	35
53) iso-octane	11.516	57	9446	1.49	ug/L		93
54) benzene	11.437	78	14403	1.69	ug/L		89
55) tert-amyl methyl ether	11.511	87	3461	1.66	ug/L	#	76
56) heptane	11.673	57	2112	1.74	ug/L	#	80
57) isopropyl acetate	11.353	87	901	1.40	ug/L	#	53
58) 1,2-dichloroethane	11.469	62	5752	1.68	ug/L		89
59) ethyl acrylate	12.134	55	5879	1.74	ug/L		88
60) trichloroethene	12.140	95	4280	1.79	ug/L		91
61) 2-nitropropane	12.879	41	2335	1.90	ug/L	#	71
62) 2-chloroethyl vinyl ether	12.889	63	10023	7.50	ug/L		96
63) methyl methacrylate	12.391	100	1086	1.64	ug/L	#	51
64) 1,2-dichloropropane	12.418	63	3675	1.66	ug/L		90
65) dibromomethane	12.528	93	2929	1.65	ug/L		89
66) methylcyclohexane	12.418	83	7389	1.54	ug/L		92
67) bromodichloromethane	12.674	83	5135	1.60	ug/L		88
68) epichlorohydrin	12.984	57	2959	8.14	ug/L		79
69) cis-1,3-dichloropropene	13.099	75	5048	1.41	ug/L		90
70) 4-methyl-2-pentanone	13.199	58	9665	6.31	ug/L	#	79
71) 3-methyl-1-butanol	13.214	55	9796	30.03	ug/L		94
74) toluene	13.461	92	8588	1.58	ug/L		96
75) ethyl methacrylate	13.623	69	5060	1.61	ug/L		93
76) trans-1,3-dichloropropene	13.634	75	5189	1.54	ug/L		92
77) 1,1,2-trichloroethane	13.849	83	2971	1.65	ug/L		94
78) 2-hexanone	13.996	58	9327	6.44	ug/L		92
79) tetrachloroethene	13.970	164	3421	1.69	ug/L	#	82
80) 1,3-dichloropropane	14.011	76	6001	1.79	ug/L		80
81) butyl acetate	14.064	56	3910	1.98	ug/L		90
82) dibromochloromethane	14.242	129	3904	1.46	ug/L		94
83) 1,2-dibromoethane	14.389	107	4157	1.69	ug/L		98
84) n-butyl ether	14.777	57	16544	1.66	ug/L		90
85) chlorobenzene	14.829	112	10803	1.69	ug/L		92
86) 1,1,1,2-tetrachloroethane	14.887	131	4660	1.54	ug/L		85
87) ethylbenzene	14.882	91	17968	1.60	ug/L		97
88) m,p-xylene	14.992	106	13663	3.20	ug/L		86
89) o-xylene	15.364	106	7629	1.62	ug/L		91
90) styrene	15.380	104	11779	1.58	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185726.D
Acq On : 24 Sep 2021 6:10 pm
Operator : thienn
Sample : ic8274-2
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 09:01:47 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

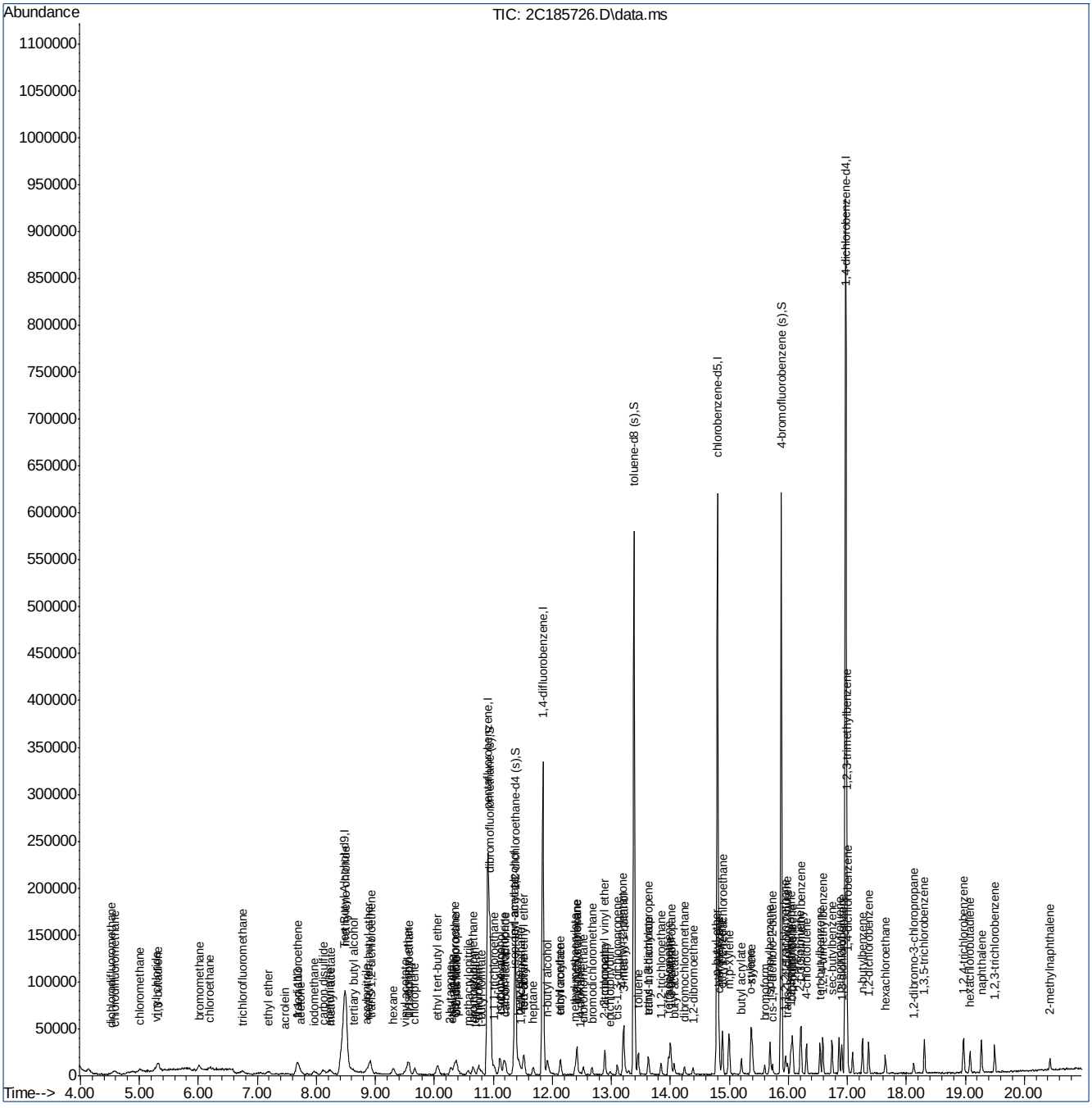
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91)	butyl acrylate	15.207	55	10672	1.85	ug/L		87
92)	bromoform	15.600	173	3402	1.37	ug/L		92
93)	isopropylbenzene	15.689	105	20065	1.56	ug/L		97
94)	cis-1,4-dichloro-2-butene	15.736	75	1903	1.54	ug/L	#	70
97)	bromobenzene	16.056	156	6109	1.69	ug/L		90
98)	1,1,2,2-tetrachloroethane	15.957	83	7073	1.59	ug/L		96
99)	trans-1,4-dichloro-2-b...	15.983	88	897	1.24	ug/L		93
100)	1,2,3-trichloropropane	16.041	110	2182	1.74	ug/L		93
101)	n-propylbenzene	16.072	91	24244	1.59	ug/L		97
102)	2-chlorotoluene	16.203	126	5093	1.57	ug/L		90
103)	4-chlorotoluene	16.308	91	15212	1.66	ug/L		96
104)	1,3,5-trimethylbenzene	16.219	105	17463	1.51	ug/L		95
105)	tert-butylbenzene	16.539	119	13261	1.39	ug/L		90
106)	1,2,4-trimethylbenzene	16.581	105	18063	1.54	ug/L		99
107)	sec-butylbenzene	16.738	105	21335	1.44	ug/L		99
108)	1,3-dichlorobenzene	16.911	146	10992	1.61	ug/L		99
109)	p-isopropyltoluene	16.864	119	18754	1.46	ug/L		99
110)	1,2,3-trimethylbenzene	16.990	105	20524	1.57	ug/L		89
111)	1,4-dichlorobenzene	17.000	146	11426	1.62	ug/L		93
112)	1,2-dichlorobenzene	17.362	146	11732	1.62	ug/L		90
113)	n-butylbenzene	17.257	92	10037	1.59	ug/L		93
114)	1,2-dibromo-3-chloropr...	18.127	75	2199	1.57	ug/L		91
115)	1,3,5-trichlorobenzene	18.305	180	9702	1.51	ug/L		96
116)	1,2,4-trichlorobenzene	18.971	180	9676	1.59	ug/L		98
117)	hexachlorobutadiene	19.081	225	4769	1.63	ug/L		91
118)	naphthalene	19.275	128	25814	1.51	ug/L		95
119)	1,2,3-trichlorobenzene	19.496	180	8615	1.55	ug/L		98
120)	hexachloroethane	17.645	201	2515	1.16	ug/L		94
121)	2-methylnaphthalene	20.439	142	4762	0.69	ug/L		87

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185726.D
Acq On : 24 Sep 2021 6:10 pm
Operator : thienn
Sample : ic8274-2
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 27 09:01:47 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185727.D
Acq On : 24 Sep 2021 6:39 pm
Operator : thienn
Sample : ic8274-4
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 09:01:51 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.485	65	267759	500.00	ug/L		0.00
5) pentafluorobenzene	10.913	168	183828	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	267832	50.00	ug/L		0.00
72) chlorobenzene-d5	14.803	117	273700	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	194009	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.944	113	97592	50.21	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	111093	50.50	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.00%				
73) toluene-d8 (s)	13.388	98	331834	48.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.66%				
96) 4-bromofluorobenzene (s)	15.883	95	150329	49.57	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.14%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.616	59	12457	18.64	ug/L		93
4) 1,4-dioxane	12.475	88	3952	80.44	ug/L		81
6) chlorodifluoromethane	4.585	51	14110	4.47	ug/L		94
7) dichlorodifluoromethane	4.548	85	15700	3.70	ug/L		95
8) chloromethane	5.014	50	16063	4.34	ug/L		97
9) vinyl chloride	5.282	62	15551	3.81	ug/L		94
10) 1,3-butadiene	5.324	54	13884	4.52	ug/L		95
11) bromomethane	6.011	94	14060	4.14	ug/L		93
12) chloroethane	6.194	64	9766	3.95	ug/L		91
13) trichlorofluoromethane	6.745	101	18289	3.73	ug/L		95
14) ethyl ether	7.190	74	4862	4.17	ug/L	#	75
15) acrolein	7.468	56	1952	3.36	ug/L	#	59
16) freon 113	7.694	151	8264	3.86	ug/L		96
17) 1,1-dichloroethene	7.667	96	8774	4.06	ug/L		95
18) acetone	7.730	58	5104	12.83	ug/L		97
19) iodomethane	7.956	142	16184	3.81	ug/L		91
20) acetonitrile	8.228	41	17574	43.66	ug/L		84
21) carbon disulfide	8.113	76	29256	3.92	ug/L		93
22) methylene chloride	8.496	84	10746	4.22	ug/L		89
23) methyl acetate	8.234	43	9250	4.04	ug/L		89
24) methyl tert butyl ether	8.894	73	29545	3.82	ug/L		98
25) trans-1,2-dichloroethene	8.921	96	9193	4.03	ug/L		92
26) hexane	9.314	56	5412	4.17	ug/L		94
27) di-isopropyl ether	9.555	45	25755	3.72	ug/L		97
28) 1,1-dichloroethane	9.565	63	14268	3.77	ug/L		90
29) chloroprene	9.670	53	11551	3.91	ug/L		94
30) acrylonitrile	8.852	53	4226	3.62	ug/L		77
31) vinyl acetate	9.492	86	1507	4.10	ug/L	#	40
32) ethyl tert-butyl ether	10.053	59	25808	3.69	ug/L		96
33) 2-butanone	10.273	72	4932	13.50	ug/L	#	59
34) ethyl acetate	10.294	45	1366	3.53	ug/L	#	1
35) 2,2-dichloropropane	10.383	77	13612	3.84	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185727.D
Acq On : 24 Sep 2021 6:39 pm
Operator : thienn
Sample : ic8274-4
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 09:01:51 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	10.336	96	9536	3.87	ug/L		92
37) propionitrile	10.378	54	18497	37.49	ug/L		96
38) bromochloromethane	10.651	128	5073	3.90	ug/L		86
39) tetrahydrofuran	10.672	71	1566	3.67	ug/L	#	70
40) chloroform	10.745	83	14797	3.72	ug/L		99
41) t-butyl formate	10.792	59	7935	4.27	ug/L		87
43) methacrylonitrile	10.572	67	3934	3.77	ug/L	#	58
44) 1,1,1-trichloroethane	11.012	97	16114	3.80	ug/L		93
45) cyclohexane	11.117	84	14096	3.58	ug/L		92
46) 1,1-dichloropropene	11.180	75	10341	3.94	ug/L		96
47) carbon tetrachloride	11.206	117	14015	3.70	ug/L		92
48) isobutyl alcohol	11.180	42	4264	40.07	ug/L		97
51) n-butyl alcohol	11.920	56	29217	198.59	ug/L		98
52) tert-amyl alcohol	11.338	55	4497	21.66	ug/L	#	68
53) iso-octane	11.516	57	20252	3.50	ug/L		95
54) benzene	11.432	78	30400	3.91	ug/L		96
55) tert-amyl methyl ether	11.516	87	7325	3.84	ug/L		90
56) heptane	11.668	57	4361	3.94	ug/L		89
57) isopropyl acetate	11.353	87	2163	3.68	ug/L	#	55
58) 1,2-dichloroethane	11.463	62	12646	4.04	ug/L		94
59) ethyl acrylate	12.129	55	12174	3.96	ug/L		90
60) trichloroethene	12.134	95	8283	3.80	ug/L		87
61) 2-nitropropane	12.884	41	4563	4.07	ug/L	#	59
62) 2-chloroethyl vinyl ether	12.895	63	21833	17.90	ug/L		96
63) methyl methacrylate	12.391	100	2170	3.59	ug/L		92
64) 1,2-dichloropropane	12.423	63	7602	3.77	ug/L		88
65) dibromomethane	12.528	93	6567	4.05	ug/L		85
66) methylcyclohexane	12.418	83	16989	3.89	ug/L		94
67) bromodichloromethane	12.669	83	10407	3.56	ug/L		99
68) epichlorohydrin	12.984	57	6333	19.09	ug/L		94
69) cis-1,3-dichloropropene	13.099	75	11808	3.61	ug/L		93
70) 4-methyl-2-pentanone	13.204	58	19871	14.21	ug/L		94
71) 3-methyl-1-butanol	13.209	55	22664	76.14	ug/L		97
74) toluene	13.456	92	17731	3.47	ug/L		95
75) ethyl methacrylate	13.618	69	11779	3.99	ug/L		96
76) trans-1,3-dichloropropene	13.634	75	11025	3.48	ug/L		94
77) 1,1,2-trichloroethane	13.838	83	6142	3.62	ug/L		95
78) 2-hexanone	13.996	58	20200	14.85	ug/L		97
79) tetrachloroethene	13.970	164	7212	3.79	ug/L		91
80) 1,3-dichloropropane	14.012	76	12182	3.85	ug/L		88
81) butyl acetate	14.059	56	7635	4.11	ug/L		91
82) dibromochloromethane	14.242	129	8490	3.37	ug/L		94
83) 1,2-dibromoethane	14.384	107	8477	3.66	ug/L		91
84) n-butyl ether	14.777	57	35449	3.78	ug/L		98
85) chlorobenzene	14.829	112	22997	3.82	ug/L		88
86) 1,1,1,2-tetrachloroethane	14.892	131	9866	3.48	ug/L		94
87) ethylbenzene	14.882	91	38598	3.66	ug/L		99
88) m,p-xylene	14.992	106	28798	7.17	ug/L		94
89) o-xylene	15.369	106	15909	3.60	ug/L		93
90) styrene	15.380	104	24785	3.53	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185727.D
Acq On : 24 Sep 2021 6:39 pm
Operator : thienn
Sample : ic8274-4
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 09:01:51 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

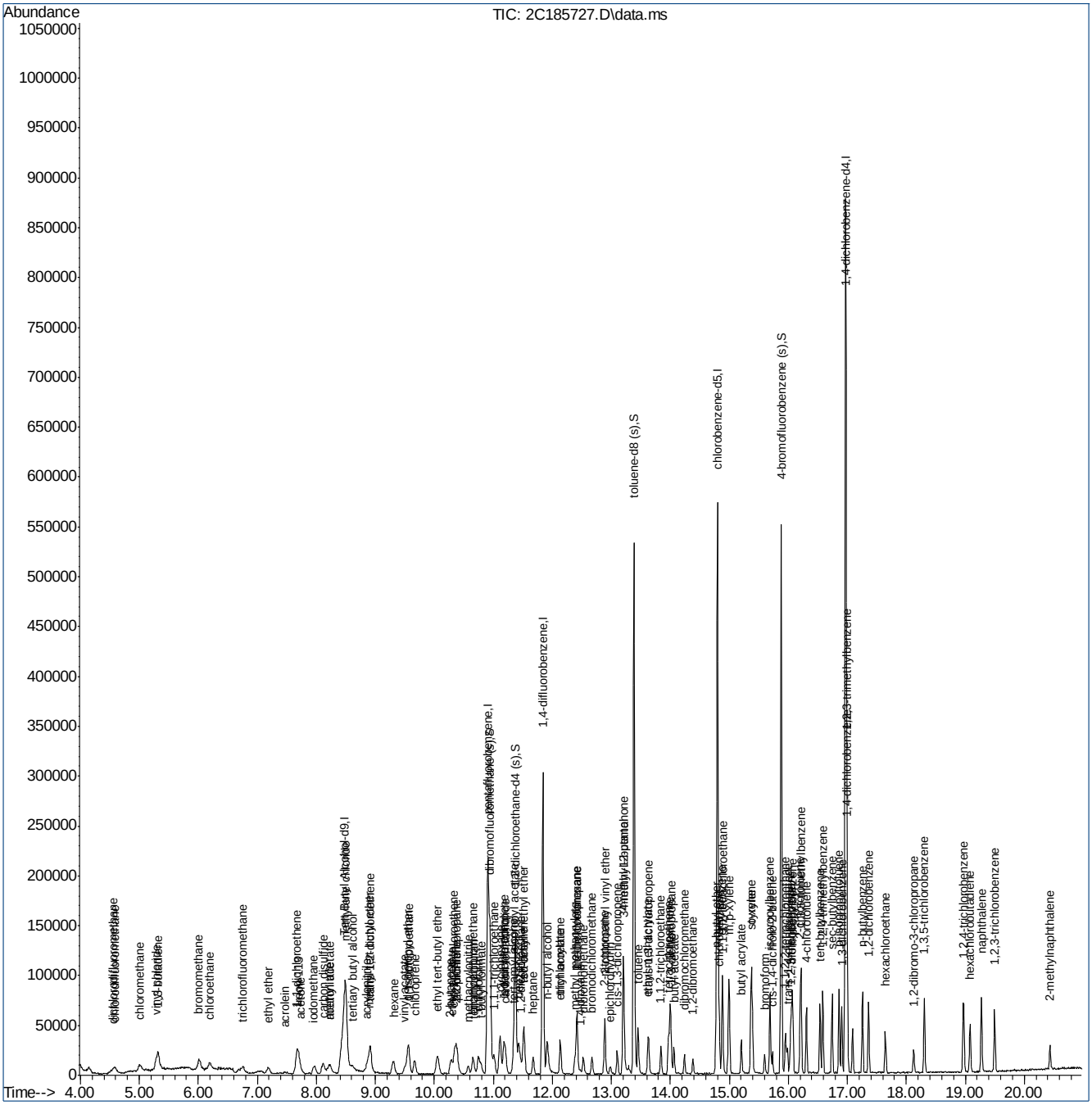
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91)	butyl acrylate	15.202	55	21002	3.88	ug/L		98
92)	bromoform	15.600	173	7647	3.28	ug/L		97
93)	isopropylbenzene	15.689	105	42270	3.50	ug/L		99
94)	cis-1,4-dichloro-2-butene	15.731	75	4139	3.55	ug/L		94
97)	bromobenzene	16.056	156	12233	3.59	ug/L		96
98)	1,1,2,2-tetrachloroethane	15.957	83	16025	3.81	ug/L		99
99)	trans-1,4-dichloro-2-b...	15.988	88	2424	3.57	ug/L	#	66
100)	1,2,3-trichloropropane	16.035	110	4363	3.69	ug/L		99
101)	n-propylbenzene	16.072	91	51844	3.61	ug/L		98
102)	2-chlorotoluene	16.203	126	10745	3.52	ug/L		99
103)	4-chlorotoluene	16.308	91	30498	3.52	ug/L		99
104)	1,3,5-trimethylbenzene	16.219	105	37765	3.45	ug/L		97
105)	tert-butylbenzene	16.539	119	28316	3.16	ug/L		97
106)	1,2,4-trimethylbenzene	16.586	105	39221	3.55	ug/L		97
107)	sec-butylbenzene	16.743	105	46972	3.37	ug/L		97
108)	1,3-dichlorobenzene	16.911	146	23165	3.59	ug/L		98
109)	p-isopropyltoluene	16.858	119	39939	3.30	ug/L		95
110)	1,2,3-trimethylbenzene	16.990	105	42836	3.48	ug/L		92
111)	1,4-dichlorobenzene	16.995	146	24970	3.75	ug/L		96
112)	1,2-dichlorobenzene	17.362	146	25604	3.75	ug/L		97
113)	n-butylbenzene	17.257	92	20817	3.49	ug/L		92
114)	1,2-dibromo-3-chloropr...	18.127	75	4825	3.66	ug/L		98
115)	1,3,5-trichlorobenzene	18.306	180	21891	3.61	ug/L		99
116)	1,2,4-trichlorobenzene	18.971	180	19642	3.42	ug/L		93
117)	hexachlorobutadiene	19.082	225	9973	3.61	ug/L		94
118)	naphthalene	19.276	128	53662	3.33	ug/L		95
119)	1,2,3-trichlorobenzene	19.496	180	17844	3.41	ug/L		98
120)	hexachloroethane	17.645	201	5389	2.64	ug/L	#	79
121)	2-methylnaphthalene	20.439	142	10812	1.66	ug/L		97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185727.D
Acq On : 24 Sep 2021 6:39 pm
Operator : thienn
Sample : ic8274-4
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 27 09:01:51 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185728.D
Acq On : 24 Sep 2021 7:07 pm
Operator : thienn
Sample : ic8274-8
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 09:01:56 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.485	65	257044	500.00	ug/L		0.00
5) pentafluorobenzene	10.908	168	176370	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	257278	50.00	ug/L		0.00
72) chlorobenzene-d5	14.798	117	261026	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	186025	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.939	113	91937	49.30	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.60%				
50) 1,2-dichloroethane-d4 (s)	11.369	65	107048	50.66	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.32%				
73) toluene-d8 (s)	13.388	98	325554	50.23	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.46%				
96) 4-bromofluorobenzene (s)	15.878	95	144932	49.84	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.68%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.616	59	24852	38.74	ug/L		95
4) 1,4-dioxane	12.475	88	10379	220.07	ug/L		95
6) chlorodifluoromethane	4.585	51	25428	8.39	ug/L		93
7) dichlorodifluoromethane	4.548	85	32429	7.97	ug/L		97
8) chloromethane	5.009	50	29207	8.22	ug/L		93
9) vinyl chloride	5.277	62	31638	8.07	ug/L		92
10) 1,3-butadiene	5.313	54	25597	8.68	ug/L		90
11) bromomethane	6.021	94	25993	7.97	ug/L		87
12) chloroethane	6.194	64	18568	7.83	ug/L		98
13) trichlorofluoromethane	6.750	101	35666	7.58	ug/L		94
14) ethyl ether	7.185	74	8502	7.60	ug/L		84
15) acrolein	7.468	56	3897	6.99	ug/L		93
16) freon 113	7.688	151	16557	8.05	ug/L		91
17) 1,1-dichloroethene	7.673	96	16958	8.18	ug/L		98
18) acetone	7.715	58	12151	31.83	ug/L	#	84
19) iodomethane	7.956	142	30980	7.60	ug/L		97
20) acetonitrile	8.218	41	33040	85.56	ug/L		91
21) carbon disulfide	8.108	76	56028	7.82	ug/L		95
22) methylene chloride	8.496	84	19513	8.00	ug/L		94
23) methyl acetate	8.228	43	17548	7.99	ug/L		97
24) methyl tert butyl ether	8.905	73	56318	7.59	ug/L		98
25) trans-1,2-dichloroethene	8.910	96	17679	8.08	ug/L		87
26) hexane	9.314	56	9956	7.99	ug/L	#	89
27) di-isopropyl ether	9.555	45	49794	7.49	ug/L		97
28) 1,1-dichloroethane	9.565	63	27735	7.63	ug/L		97
29) chloroprene	9.670	53	21631	7.63	ug/L		98
30) acrylonitrile	8.837	53	8613	7.70	ug/L		94
31) vinyl acetate	9.497	86	2498	7.09	ug/L	#	81
32) ethyl tert-butyl ether	10.053	59	50850	7.58	ug/L		96
33) 2-butanone	10.278	72	10527	30.03	ug/L	#	88
34) ethyl acetate	10.273	45	2387	6.43	ug/L	#	68
35) 2,2-dichloropropane	10.373	77	26684	7.86	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185728.D
Acq On : 24 Sep 2021 7:07 pm
Operator : thienn
Sample : ic8274-8
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 09:01:56 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	10.331	96	18066	7.65	ug/L		95
37) propionitrile	10.383	54	35386	74.75	ug/L		94
38) bromochloromethane	10.651	128	9581	7.68	ug/L		95
39) tetrahydrofuran	10.672	71	3255	7.94	ug/L	#	77
40) chloroform	10.750	83	29091	7.62	ug/L		93
41) t-butyl formate	10.787	59	11951	6.71	ug/L		89
43) methacrylonitrile	10.567	67	7417	7.40	ug/L		86
44) 1,1,1-trichloroethane	11.007	97	31404	7.72	ug/L		91
45) cyclohexane	11.117	84	28027	7.42	ug/L		96
46) 1,1-dichloropropene	11.180	75	19038	7.56	ug/L		96
47) carbon tetrachloride	11.201	117	27279	7.50	ug/L		98
48) isobutyl alcohol	11.175	42	8667	84.90	ug/L		93
51) n-butyl alcohol	11.914	56	57054	403.71	ug/L		100
52) tert-amyl alcohol	11.348	55	9647	48.36	ug/L	#	65
53) iso-octane	11.516	57	39970	7.20	ug/L		92
54) benzene	11.427	78	56253	7.52	ug/L		100
55) tert-amyl methyl ether	11.511	87	13567	7.41	ug/L	#	82
56) heptane	11.678	57	7869	7.40	ug/L		94
57) isopropyl acetate	11.348	87	4683	8.28	ug/L	#	86
58) 1,2-dichloroethane	11.469	62	23744	7.89	ug/L		94
59) ethyl acrylate	12.129	55	23091	7.81	ug/L		99
60) trichloroethene	12.135	95	15528	7.43	ug/L		92
61) 2-nitropropane	12.879	41	8438	7.84	ug/L	#	76
62) 2-chloroethyl vinyl ether	12.895	63	41774	35.64	ug/L		95
63) methyl methacrylate	12.381	100	4735	8.15	ug/L	#	87
64) 1,2-dichloropropane	12.418	63	14883	7.69	ug/L		98
65) dibromomethane	12.528	93	11657	7.48	ug/L		98
66) methylcyclohexane	12.418	83	31448	7.49	ug/L		100
67) bromodichloromethane	12.669	83	20939	7.46	ug/L		92
68) epichlorohydrin	12.979	57	12400	38.91	ug/L		94
69) cis-1,3-dichloropropene	13.099	75	22384	7.13	ug/L		98
70) 4-methyl-2-pentanone	13.199	58	40636	30.25	ug/L		91
71) 3-methyl-1-butanol	13.209	55	44109	154.26	ug/L		95
74) toluene	13.456	92	35465	7.29	ug/L		97
75) ethyl methacrylate	13.618	69	20799	7.39	ug/L		92
76) trans-1,3-dichloropropene	13.634	75	21753	7.21	ug/L		97
77) 1,1,2-trichloroethane	13.844	83	12455	7.70	ug/L		95
78) 2-hexanone	13.996	58	40303	31.06	ug/L		92
79) tetrachloroethene	13.970	164	13319	7.33	ug/L		98
80) 1,3-dichloropropane	14.012	76	23436	7.78	ug/L		98
81) butyl acetate	14.059	56	14431	8.15	ug/L		91
82) dibromochloromethane	14.242	129	16552	6.89	ug/L		95
83) 1,2-dibromoethane	14.384	107	16925	7.66	ug/L		99
84) n-butyl ether	14.777	57	68938	7.71	ug/L		98
85) chlorobenzene	14.829	112	44317	7.72	ug/L		97
86) 1,1,1,2-tetrachloroethane	14.892	131	19771	7.30	ug/L		93
87) ethylbenzene	14.882	91	75367	7.50	ug/L		98
88) m,p-xylene	14.992	106	55654	14.53	ug/L		97
89) o-xylene	15.369	106	31098	7.37	ug/L		95
90) styrene	15.380	104	48957	7.32	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185728.D
Acq On : 24 Sep 2021 7:07 pm
Operator : thienn
Sample : ic8274-8
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 09:01:56 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

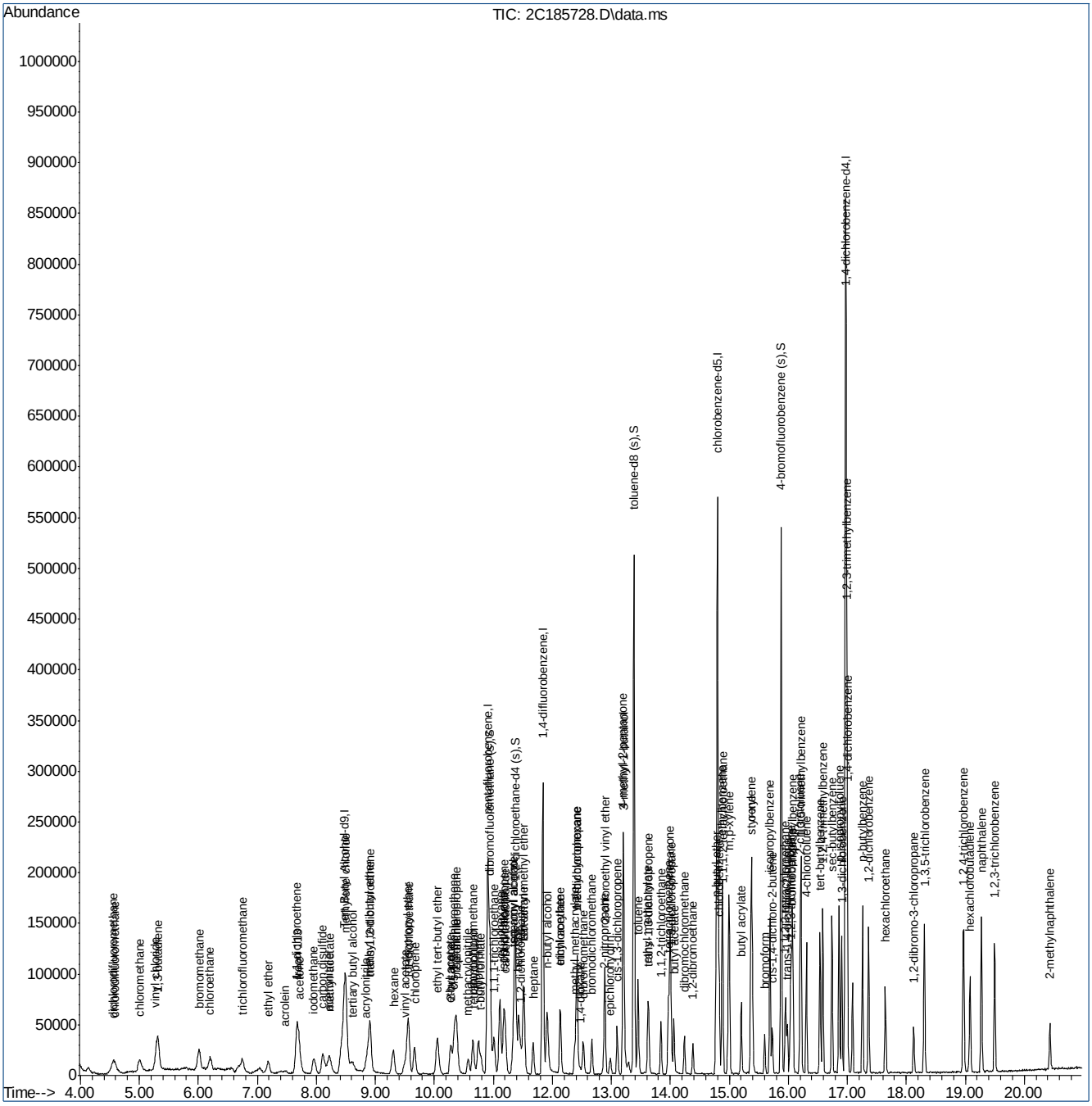
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	butyl acrylate	15.202	55	40861	7.91	ug/L	96
92)	bromoform	15.600	173	14733	6.62	ug/L	98
93)	isopropylbenzene	15.689	105	83800	7.29	ug/L	98
94)	cis-1,4-dichloro-2-butene	15.731	75	7744	6.97	ug/L	94
97)	bromobenzene	16.056	156	23768	7.27	ug/L	95
98)	1,1,2,2-tetrachloroethane	15.957	83	29892	7.42	ug/L	93
99)	trans-1,4-dichloro-2-b...	15.983	88	4365	6.70	ug/L	89
100)	1,2,3-trichloropropane	16.035	110	8946	7.90	ug/L	97
101)	n-propylbenzene	16.072	91	100518	7.30	ug/L	99
102)	2-chlorotoluene	16.203	126	20996	7.16	ug/L	98
103)	4-chlorotoluene	16.308	91	61850	7.44	ug/L	95
104)	1,3,5-trimethylbenzene	16.219	105	74596	7.11	ug/L	96
105)	tert-butylbenzene	16.539	119	57742	6.72	ug/L	97
106)	1,2,4-trimethylbenzene	16.581	105	78006	7.37	ug/L	99
107)	sec-butylbenzene	16.743	105	93342	6.98	ug/L	99
108)	1,3-dichlorobenzene	16.911	146	44735	7.23	ug/L	96
109)	p-isopropyltoluene	16.864	119	81586	7.03	ug/L	99
110)	1,2,3-trimethylbenzene	16.990	105	82884	7.02	ug/L	95
111)	1,4-dichlorobenzene	17.000	146	46217	7.25	ug/L	97
112)	1,2-dichlorobenzene	17.362	146	48068	7.34	ug/L	100
113)	n-butylbenzene	17.257	92	41163	7.20	ug/L	91
114)	1,2-dibromo-3-chloropr...	18.127	75	9895	7.83	ug/L	97
115)	1,3,5-trichlorobenzene	18.311	180	43066	7.42	ug/L	95
116)	1,2,4-trichlorobenzene	18.971	180	39210	7.11	ug/L	89
117)	hexachlorobutadiene	19.082	225	19301	7.28	ug/L	95
118)	naphthalene	19.276	128	110310	7.13	ug/L	98
119)	1,2,3-trichlorobenzene	19.496	180	35228	7.03	ug/L	95
120)	hexachloroethane	17.645	201	11975	6.11	ug/L	87
121)	2-methylnaphthalene	20.434	142	20813	3.33	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185728.D
Acq On : 24 Sep 2021 7:07 pm
Operator : thienn
Sample : ic8274-8
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 27 09:01:56 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185729.D
Acq On : 24 Sep 2021 7:36 pm
Operator : thienn
Sample : ic8274-20
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 09:47:21 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.485	65	260695	500.00	ug/L		0.00
5) pentafluorobenzene	10.913	168	188937	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	279601	50.00	ug/L		0.00
72) chlorobenzene-d5	14.798	117	281062	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	194498	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.950	113	99220	50.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	117553	50.51	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.02%				
73) toluene-d8 (s)	13.388	98	352151	50.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.26%				
96) 4-bromofluorobenzene (s)	15.878	95	152928	50.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.62%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.616	59	63289	103.93	ug/L		97
4) 1,4-dioxane	12.470	88	24750	527.96	ug/L		86
6) chlorodifluoromethane	4.579	51	64628	20.50	ug/L		98
7) dichlorodifluoromethane	4.548	85	81382	20.58	ug/L		99
8) chloromethane	4.999	50	76428	20.06	ug/L		96
9) vinyl chloride	5.282	62	77245	20.59	ug/L		97
10) 1,3-butadiene	5.319	54	64254	20.47	ug/L		97
11) bromomethane	6.016	94	62540	17.76	ug/L		99
12) chloroethane	6.199	64	45641	19.15	ug/L		92
13) trichlorofluoromethane	6.750	101	90641	19.36	ug/L		95
14) ethyl ether	7.185	74	23958	21.13	ug/L		93
15) acrolein	7.479	56	12090	21.54	ug/L		74
16) freon 113	7.694	151	41508	20.04	ug/L		95
17) 1,1-dichloroethene	7.673	96	43608	19.21	ug/L		83
18) acetone	7.715	58	30893	82.91	ug/L		99
19) iodomethane	7.966	142	81895	19.95	ug/L		91
20) acetonitrile	8.218	41	84484	207.34	ug/L		92
21) carbon disulfide	8.108	76	144108	19.92	ug/L		99
22) methylene chloride	8.496	84	52092	20.19	ug/L		91
23) methyl acetate	8.218	43	43963	19.09	ug/L		97
24) methyl tert butyl ether	8.894	73	151537	20.47	ug/L		98
25) trans-1,2-dichloroethene	8.921	96	46243	20.17	ug/L		96
26) hexane	9.303	56	26562	20.36	ug/L	#	87
27) di-isopropyl ether	9.550	45	133030	20.16	ug/L		97
28) 1,1-dichloroethane	9.565	63	72412	20.31	ug/L		96
29) chloroprene	9.665	53	56342	19.76	ug/L		97
30) acrylonitrile	8.847	53	23086	20.09	ug/L		95
31) vinyl acetate	9.503	86	6930	19.78	ug/L	#	82
32) ethyl tert-butyl ether	10.053	59	134960	20.57	ug/L		96
33) 2-butanone	10.273	72	29100	86.47	ug/L		90
34) ethyl acetate	10.289	45	7018	19.48	ug/L	#	94
35) 2,2-dichloropropane	10.373	77	69032	20.07	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185729.D
Acq On : 24 Sep 2021 7:36 pm
Operator : thienn
Sample : ic8274-20
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 09:47:21 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	10.341	96	48262	19.24	ug/L		99
37) propionitrile	10.383	54	98144	208.41	ug/L		91
38) bromochloromethane	10.656	128	25299	19.82	ug/L		100
39) tetrahydrofuran	10.672	71	8070	19.71	ug/L		96
40) chloroform	10.750	83	79032	20.31	ug/L		99
41) t-butyl formate	10.787	59	34407	19.85	ug/L		92
43) methacrylonitrile	10.567	67	21268	21.39	ug/L		97
44) 1,1,1-trichloroethane	11.018	97	82575	20.20	ug/L		99
45) cyclohexane	11.112	84	72580	20.59	ug/L		85
46) 1,1-dichloropropene	11.180	75	52462	20.87	ug/L		94
47) carbon tetrachloride	11.201	117	74473	21.74	ug/L		95
48) isobutyl alcohol	11.180	42	22672	195.58	ug/L		97
51) n-butyl alcohol	11.914	56	153849	1063.50	ug/L		97
52) tert-amyl alcohol	11.343	55	23254	102.70	ug/L		100
53) iso-octane	11.516	57	107751	19.13	ug/L		94
54) benzene	11.432	78	154302	20.08	ug/L		100
55) tert-amyl methyl ether	11.511	87	37050	19.87	ug/L		95
56) heptane	11.678	57	22132	20.47	ug/L		97
57) isopropyl acetate	11.353	87	11671	20.30	ug/L	#	85
58) 1,2-dichloroethane	11.463	62	61924	19.31	ug/L		92
59) ethyl acrylate	12.129	55	62714	20.47	ug/L		98
60) trichloroethene	12.140	95	43431	20.91	ug/L		98
61) 2-nitropropane	12.879	41	22059	18.81	ug/L		97
62) 2-chloroethyl vinyl ether	12.895	63	121451	102.18	ug/L		96
63) methyl methacrylate	12.381	100	11937	19.93	ug/L		97
64) 1,2-dichloropropane	12.423	63	40509	20.40	ug/L		100
65) dibromomethane	12.523	93	33193	21.26	ug/L		95
66) methylcyclohexane	12.418	83	84720	20.42	ug/L		99
67) bromodichloromethane	12.669	83	56695	20.18	ug/L		97
68) epichlorohydrin	12.984	57	32647	102.25	ug/L		96
69) cis-1,3-dichloropropene	13.099	75	64001	20.71	ug/L		97
70) 4-methyl-2-pentanone	13.204	58	109926	83.06	ug/L		98
71) 3-methyl-1-butanol	13.209	55	123555	411.81	ug/L		93
74) toluene	13.456	92	100764	20.83	ug/L		98
75) ethyl methacrylate	13.618	69	55385	19.32	ug/L		95
76) trans-1,3-dichloropropene	13.634	75	60887	20.49	ug/L		97
77) 1,1,2-trichloroethane	13.844	83	33890	20.44	ug/L		94
78) 2-hexanone	13.996	58	109484	84.28	ug/L		97
79) tetrachloroethene	13.970	164	37833	20.55	ug/L		96
80) 1,3-dichloropropane	14.012	76	63418	20.57	ug/L		98
81) butyl acetate	14.059	56	38516	20.42	ug/L		94
82) dibromochloromethane	14.242	129	47671	20.67	ug/L		98
83) 1,2-dibromoethane	14.389	107	45499	20.95	ug/L		97
84) n-butyl ether	14.777	57	186636	20.32	ug/L		95
85) chlorobenzene	14.829	112	119786	20.72	ug/L		98
86) 1,1,1,2-tetrachloroethane	14.892	131	53906	20.26	ug/L		97
87) ethylbenzene	14.882	91	209131	20.62	ug/L		98
88) m,p-xylene	14.992	106	157009	41.83	ug/L		95
89) o-xylene	15.370	106	87122	20.80	ug/L		98
90) styrene	15.380	104	139808	20.85	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185729.D
Acq On : 24 Sep 2021 7:36 pm
Operator : thienn
Sample : ic8274-20
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 09:47:21 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:11 2021
Response via : Initial Calibration

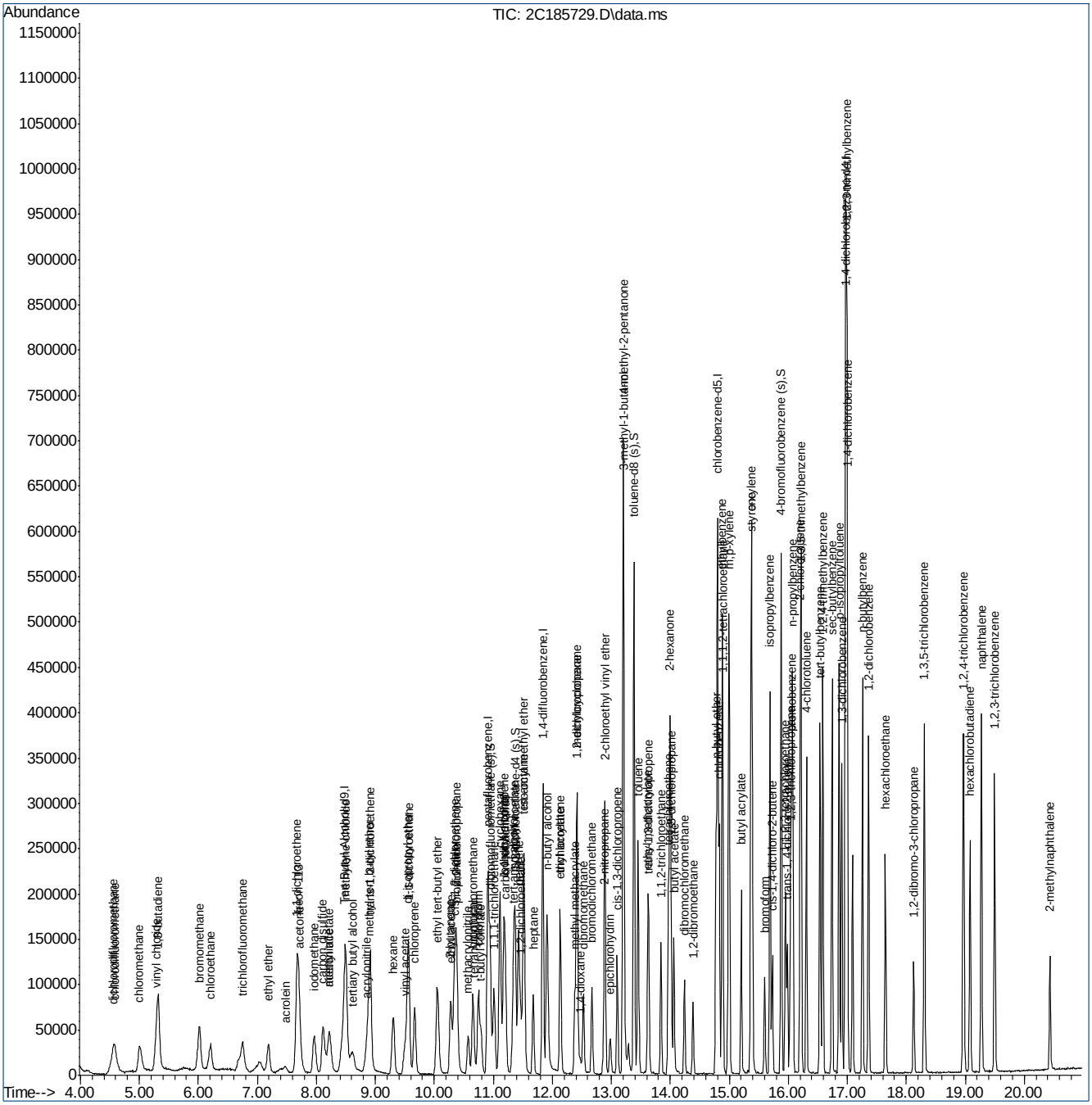
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	butyl acrylate	15.202	55	112158	20.26	ug/L	99
92)	bromoform	15.600	173	42786	20.35	ug/L	99
93)	isopropylbenzene	15.689	105	233311	21.15	ug/L	99
94)	cis-1,4-dichloro-2-butene	15.731	75	23378	21.11	ug/L	96
97)	bromobenzene	16.056	156	63536	20.20	ug/L	97
98)	1,1,2,2-tetrachloroethane	15.951	83	80298	21.30	ug/L	99
99)	trans-1,4-dichloro-2-b...	15.983	88	12465	19.68	ug/L	93
100)	1,2,3-trichloropropane	16.035	110	21727	19.34	ug/L	91
101)	n-propylbenzene	16.072	91	274940	20.85	ug/L	99
102)	2-chlorotoluene	16.203	126	57168	20.81	ug/L	94
103)	4-chlorotoluene	16.308	91	167173	20.88	ug/L	98
104)	1,3,5-trimethylbenzene	16.219	105	203806	20.04	ug/L	100
105)	tert-butylbenzene	16.533	119	163168	20.24	ug/L	97
106)	1,2,4-trimethylbenzene	16.586	105	210375	21.07	ug/L	98
107)	sec-butylbenzene	16.743	105	257454	20.23	ug/L	99
108)	1,3-dichlorobenzene	16.911	146	123458	21.06	ug/L	97
109)	p-isopropyltoluene	16.864	119	226649	20.53	ug/L	99
110)	1,2,3-trimethylbenzene	16.990	105	227722	19.76	ug/L	99
111)	1,4-dichlorobenzene	17.000	146	125837	20.13	ug/L	98
112)	1,2-dichlorobenzene	17.362	146	130148	20.51	ug/L	97
113)	n-butylbenzene	17.257	92	112960	20.51	ug/L	98
114)	1,2-dibromo-3-chloropr...	18.122	75	24899	20.13	ug/L	97
115)	1,3,5-trichlorobenzene	18.306	180	114858	20.92	ug/L	98
116)	1,2,4-trichlorobenzene	18.971	180	105768	20.31	ug/L	98
117)	hexachlorobutadiene	19.082	225	51597	20.40	ug/L	99
118)	naphthalene	19.276	128	296260	20.17	ug/L	100
119)	1,2,3-trichlorobenzene	19.496	180	93968	20.11	ug/L	95
120)	hexachloroethane	17.645	201	33828	16.51	ug/L	97
121)	2-methylnaphthalene	20.440	142	55698	9.25	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185729.D
Acq On : 24 Sep 2021 7:36 pm
Operator : thienn
Sample : ic8274-20
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 27 09:47:21 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185730.D
Acq On : 24 Sep 2021 8:05 pm
Operator : thienn
Sample : icc8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 09:02:04 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.491	65	266432	500.00	ug/L	0.00
5) pentafluorobenzene	10.908	168	200831	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.841	114	292543	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	297463	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.974	152	200936	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.944	113	106164	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	120144	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
73) toluene-d8 (s)	13.387	98	369276	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
96) 4-bromofluorobenzene (s)	15.878	95	157043	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.606	59	162887	244.99	ug/L	100
4) 1,4-dioxane	12.465	88	61504	1258.14	ug/L	100
6) chlorodifluoromethane	4.579	51	172562	50.00	ug/L	100
7) dichlorodifluoromethane	4.537	85	231396	49.94	ug/L	100
8) chloromethane	5.004	50	206771	51.11	ug/L	100
9) vinyl chloride	5.282	62	223245	50.00	ug/L	100
10) 1,3-butadiene	5.313	54	167914	50.00	ug/L	100
11) bromomethane	6.016	94	185665	50.00	ug/L	100
12) chloroethane	6.199	64	135079	50.00	ug/L	100
13) trichlorofluoromethane	6.745	101	268048	50.00	ug/L	100
14) ethyl ether	7.185	74	63723	50.00	ug/L	100
15) acrolein	7.473	56	31738	50.00	ug/L	100
16) freon 113	7.683	151	117096	50.02	ug/L	100
17) 1,1-dichloroethene	7.667	96	118149	50.05	ug/L	100
18) acetone	7.715	58	86946	200.00	ug/L	100
19) iodomethane	7.966	142	231989	50.00	ug/L	100
20) acetonitrile	8.218	41	217602	494.88	ug/L	100
21) carbon disulfide	8.108	76	407738	50.00	ug/L	100
22) methylene chloride	8.491	84	138945	50.00	ug/L	100
23) methyl acetate	8.223	43	125066	50.00	ug/L	100
24) methyl tert butyl ether	8.894	73	422314	50.00	ug/L	100
25) trans-1,2-dichloroethene	8.915	96	124618	50.00	ug/L	100
26) hexane	9.298	56	70956	50.00	ug/L	100
27) di-isopropyl ether	9.555	45	378690	50.00	ug/L	100
28) 1,1-dichloroethane	9.560	63	206532	49.93	ug/L	100
29) chloroprene	9.665	53	161514	50.00	ug/L	100
30) acrylonitrile	8.837	53	63710	50.00	ug/L	100
31) vinyl acetate	9.492	86	20072	50.00	ug/L	100
32) ethyl tert-butyl ether	10.053	59	382156	50.00	ug/L	100
33) 2-butanone	10.273	72	79838	200.00	ug/L	100
34) ethyl acetate	10.284	45	21120	50.00	ug/L	100
35) 2,2-dichloropropane	10.378	77	193392	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185730.D
Acq On : 24 Sep 2021 8:05 pm
Operator : thienn
Sample : icc8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 09:02:04 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) cis-1,2-dichloroethene	10.336	96	134449	50.00	ug/L	100
37) propionitrile	10.378	54	269507	500.00	ug/L	100
38) bromochloromethane	10.651	128	71004	50.00	ug/L	100
39) tetrahydrofuran	10.672	71	23293	49.90	ug/L	100
40) chloroform	10.745	83	217310	50.00	ug/L	100
41) t-butyl formate	10.787	59	101460	50.00	ug/L	100
43) methacrylonitrile	10.567	67	57039	50.00	ug/L	100
44) 1,1,1-trichloroethane	11.007	97	231475	50.00	ug/L	100
45) cyclohexane	11.117	84	215192	50.00	ug/L	100
46) 1,1-dichloropropene	11.175	75	143309	50.00	ug/L	100
47) carbon tetrachloride	11.201	117	207108	50.00	ug/L	100
48) isobutyl alcohol	11.164	42	58121	500.00	ug/L	100
51) n-butyl alcohol	11.909	56	401743	2500.00	ug/L	100
52) tert-amyl alcohol	11.337	55	56935	251.01	ug/L	100
53) iso-octane	11.521	57	315659	50.00	ug/L	100
54) benzene	11.427	78	425017	50.00	ug/L	100
55) tert-amyl methyl ether	11.511	87	104155	50.00	ug/L	100
56) heptane	11.678	57	60486	50.00	ug/L	100
57) isopropyl acetate	11.348	87	32142	50.00	ug/L	100
58) 1,2-dichloroethane	11.463	62	171035	50.00	ug/L	100
59) ethyl acrylate	12.129	55	168075	50.00	ug/L	100
60) trichloroethene	12.134	95	118891	50.00	ug/L	100
61) 2-nitropropane	12.879	41	61224	50.00	ug/L	100
62) 2-chloroethyl vinyl ether	12.889	63	333154	250.00	ug/L	100
63) methyl methacrylate	12.381	100	33029	50.00	ug/L	100
64) 1,2-dichloropropane	12.418	63	110073	50.00	ug/L	100
65) dibromomethane	12.528	93	88631	50.00	ug/L	100
66) methylcyclohexane	12.418	83	238717	50.00	ug/L	100
67) bromodichloromethane	12.669	83	159666	50.00	ug/L	100
68) epichlorohydrin	12.979	57	90601	250.00	ug/L	100
69) cis-1,3-dichloropropene	13.099	75	178441	50.00	ug/L	100
70) 4-methyl-2-pentanone	13.199	58	305542	200.00	ug/L	100
71) 3-methyl-1-butanol	13.204	55	325143	1000.00	ug/L	100
74) toluene	13.456	92	277316	50.00	ug/L	100
75) ethyl methacrylate	13.618	69	160279	50.00	ug/L	100
76) trans-1,3-dichloropropene	13.634	75	171973	50.00	ug/L	100
77) 1,1,2-trichloroethane	13.844	83	92186	50.00	ug/L	100
78) 2-hexanone	13.990	58	293702	198.63	ug/L	100
79) tetrachloroethene	13.969	164	103492	50.00	ug/L	100
80) 1,3-dichloropropane	14.011	76	171737	50.00	ug/L	100
81) butyl acetate	14.059	56	100846	50.00	ug/L	100
82) dibromochloromethane	14.242	129	136929	50.00	ug/L	100
83) 1,2-dibromoethane	14.384	107	125976	50.00	ug/L	100
84) n-butyl ether	14.772	57	509577	50.00	ug/L	100
85) chlorobenzene	14.829	112	327095	50.00	ug/L	100
86) 1,1,1,2-tetrachloroethane	14.892	131	154255	50.00	ug/L	100
87) ethylbenzene	14.882	91	572916	50.00	ug/L	100
88) m,p-xylene	14.992	106	436471	100.00	ug/L	100
89) o-xylene	15.369	106	240332	50.00	ug/L	100
90) styrene	15.380	104	381126	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185730.D
Acq On : 24 Sep 2021 8:05 pm
Operator : thienn
Sample : icc8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 09:02:04 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

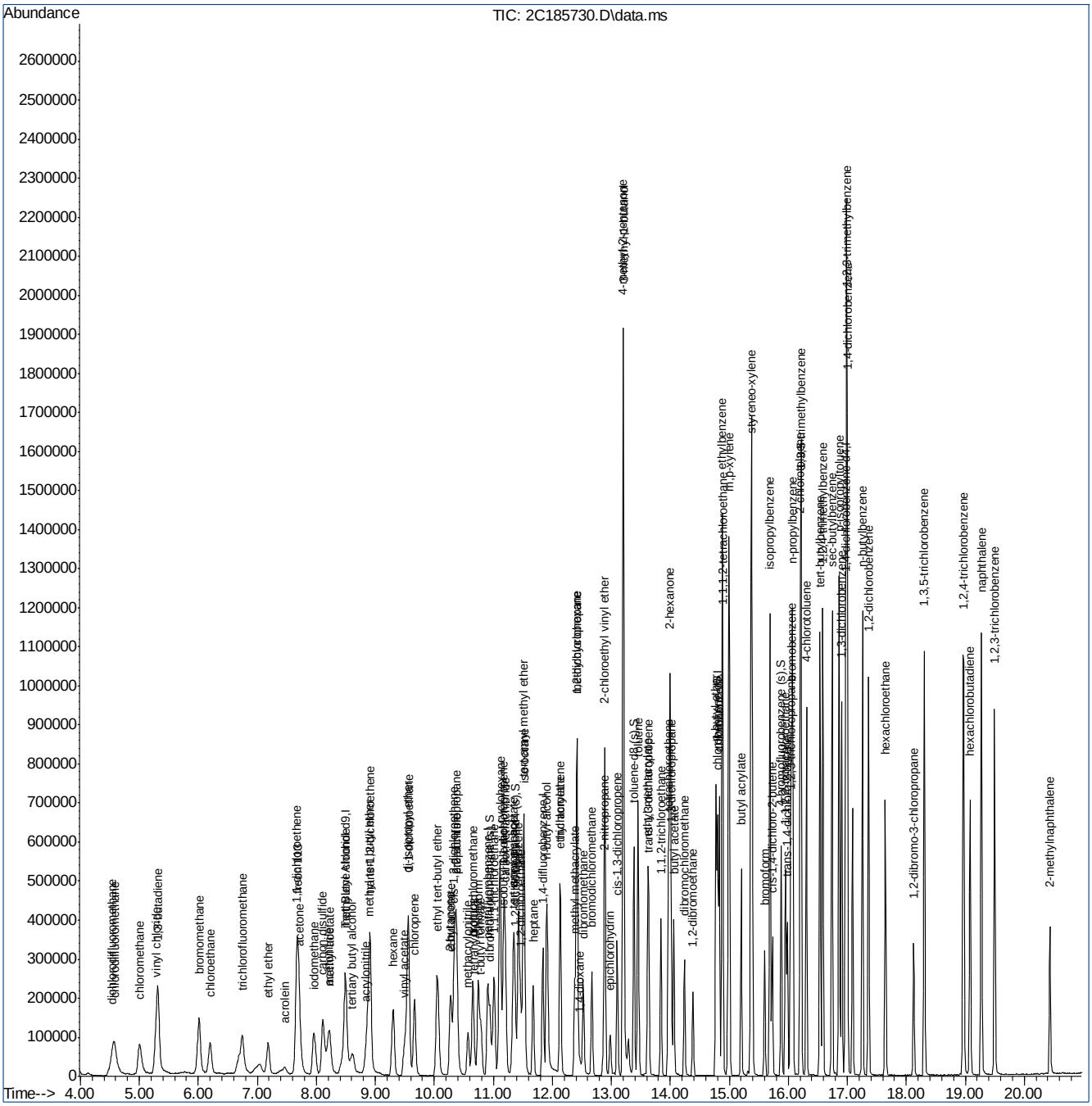
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	butyl acrylate	15.202	55	294427	50.00	ug/L	100
92)	bromoform	15.600	173	126743	50.00	ug/L	100
93)	isopropylbenzene	15.689	105	655441	50.00	ug/L	100
94)	cis-1,4-dichloro-2-butene	15.726	75	63329	50.00	ug/L	100
97)	bromobenzene	16.056	156	176498	50.00	ug/L	100
98)	1,1,2,2-tetrachloroethane	15.951	83	217678	50.00	ug/L	100
99)	trans-1,4-dichloro-2-b...	15.983	88	35211	50.00	ug/L	100
100)	1,2,3-trichloropropane	16.035	110	61162	50.00	ug/L	100
101)	n-propylbenzene	16.072	91	743852	50.00	ug/L	100
102)	2-chlorotoluene	16.203	126	158276	50.00	ug/L	100
103)	4-chlorotoluene	16.308	91	448780	50.00	ug/L	100
104)	1,3,5-trimethylbenzene	16.219	105	566732	50.00	ug/L	100
105)	tert-butylbenzene	16.533	119	464350	50.00	ug/L	100
106)	1,2,4-trimethylbenzene	16.581	105	571328	50.00	ug/L	100
107)	sec-butylbenzene	16.743	105	722141	50.00	ug/L	100
108)	1,3-dichlorobenzene	16.906	146	334030	50.00	ug/L	100
109)	p-isopropyltoluene	16.864	119	626965	50.00	ug/L	100
110)	1,2,3-trimethylbenzene	16.989	105	637847	50.00	ug/L	100
111)	1,4-dichlorobenzene	17.000	146	344505	50.00	ug/L	100
112)	1,2-dichlorobenzene	17.362	146	353889	50.00	ug/L	100
113)	n-butylbenzene	17.257	92	308759	50.00	ug/L	100
114)	1,2-dibromo-3-chloropr...	18.122	75	68258	50.00	ug/L	100
115)	1,3,5-trichlorobenzene	18.305	180	313637	50.00	ug/L	100
116)	1,2,4-trichlorobenzene	18.966	180	297682	50.00	ug/L	100
117)	hexachlorobutadiene	19.081	225	143253	50.00	ug/L	100
118)	naphthalene	19.275	128	835187	50.00	ug/L	100
119)	1,2,3-trichlorobenzene	19.496	180	270708	50.00	ug/L	100
120)	hexachloroethane	17.645	201	105866	50.00	ug/L	100
121)	2-methylnaphthalene	20.439	142	168718	25.00	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185730.D
Acq On : 24 Sep 2021 8:05 pm
Operator : thienn
Sample : icc8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 27 09:02:04 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185731.D
Acq On : 24 Sep 2021 8:34 pm
Operator : thienn
Sample : ic8274-100
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 09:02:07 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.480	65	276621	500.00	ug/L		-0.01
5) pentafluorobenzene	10.908	168	223285	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	320132	50.00	ug/L		0.00
72) chlorobenzene-d5	14.803	117	324134	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	219333	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.944	113	115570	48.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	132106	50.24	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.48%				
73) toluene-d8 (s)	13.388	98	403630	50.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%				
96) 4-bromofluorobenzene (s)	15.883	95	173183	50.51	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.02%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.606	59	314163	455.12	ug/L		96
4) 1,4-dioxane	12.465	88	121518	2394.23	ug/L		96
6) chlorodifluoromethane	4.574	51	343203	89.44	ug/L		98
7) dichlorodifluoromethane	4.543	85	457902	88.88	ug/L		98
8) chloromethane	4.999	50	413581	91.94	ug/L		98
9) vinyl chloride	5.277	62	439574	88.55	ug/L		97
10) 1,3-butadiene	5.313	54	327657	87.76	ug/L		98
11) bromomethane	6.011	94	390894	94.68	ug/L		99
12) chloroethane	6.199	64	287529	95.73	ug/L		99
13) trichlorofluoromethane	6.745	101	553879	92.93	ug/L		96
14) ethyl ether	7.180	74	135130	95.37	ug/L		94
15) acrolein	7.458	56	66688	94.50	ug/L		99
16) freon 113	7.683	151	234227	89.99	ug/L		98
17) 1,1-dichloroethene	7.667	96	242859	92.53	ug/L		94
18) acetone	7.715	58	183292	379.22	ug/L		85
19) iodomethane	7.961	142	485932	94.20	ug/L		97
20) acetonitrile	8.218	41	421809	862.83	ug/L		97
21) carbon disulfide	8.108	76	836572	92.27	ug/L		98
22) methylene chloride	8.491	84	287261	92.98	ug/L		94
23) methyl acetate	8.218	43	257935	92.75	ug/L		98
24) methyl tert butyl ether	8.889	73	862886	91.89	ug/L		96
25) trans-1,2-dichloroethene	8.915	96	253036	91.32	ug/L		100
26) hexane	9.303	56	140128	88.81	ug/L		100
27) di-isopropyl ether	9.550	45	782950	92.98	ug/L		99
28) 1,1-dichloroethane	9.560	63	421129	91.57	ug/L		97
29) chloroprene	9.665	53	326850	91.01	ug/L		97
30) acrylonitrile	8.837	53	133829	94.47	ug/L		98
31) vinyl acetate	9.492	86	35437	79.40	ug/L	#	64
32) ethyl tert-butyl ether	10.053	59	807823	95.06	ug/L		99
33) 2-butanone	10.268	72	164714	371.13	ug/L	#	82
34) ethyl acetate	10.289	45	44012	93.72	ug/L	#	82
35) 2,2-dichloropropane	10.378	77	397202	92.37	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185731.D
Acq On : 24 Sep 2021 8:34 pm
Operator : thienn
Sample : ic8274-100
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 09:02:07 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	10.336	96	276346	92.44	ug/L		94
37) propionitrile	10.373	54	560777	935.75	ug/L		98
38) bromochloromethane	10.651	128	147275	93.28	ug/L		99
39) tetrahydrofuran	10.666	71	49278	94.95	ug/L		100
40) chloroform	10.745	83	451808	93.50	ug/L		99
41) t-butyl formate	10.787	59	200615	88.92	ug/L		95
43) methacrylonitrile	10.572	67	116978	92.23	ug/L		97
44) 1,1,1-trichloroethane	11.013	97	474613	92.21	ug/L		96
45) cyclohexane	11.112	84	424366	88.69	ug/L		88
46) 1,1-dichloropropene	11.180	75	295221	92.64	ug/L		98
47) carbon tetrachloride	11.201	117	420662	91.34	ug/L		94
48) isobutyl alcohol	11.170	42	109116	844.30	ug/L		92
51) n-butyl alcohol	11.909	56	784667	4462.08	ug/L		99
52) tert-amyl alcohol	11.332	55	110863	446.64	ug/L	#	89
53) iso-octane	11.521	57	635520	91.99	ug/L		99
54) benzene	11.427	78	871493	93.69	ug/L		100
55) tert-amyl methyl ether	11.516	87	217223	95.29	ug/L		94
56) heptane	11.673	57	113565	85.79	ug/L		94
57) isopropyl acetate	11.348	87	66851	95.03	ug/L	#	81
58) 1,2-dichloroethane	11.463	62	352665	94.21	ug/L		99
59) ethyl acrylate	12.129	55	349993	95.15	ug/L		97
60) trichloroethene	12.135	95	248192	95.38	ug/L		97
61) 2-nitropropane	12.879	41	132974	99.24	ug/L		91
62) 2-chloroethyl vinyl ether	12.895	63	707469	485.14	ug/L		99
63) methyl methacrylate	12.381	100	68194	94.34	ug/L		95
64) 1,2-dichloropropane	12.423	63	231113	95.93	ug/L		99
65) dibromomethane	12.523	93	181628	93.63	ug/L		97
66) methylcyclohexane	12.418	83	476008	91.11	ug/L		98
67) bromodichloromethane	12.669	83	334825	95.82	ug/L		96
68) epichlorohydrin	12.979	57	183209	461.97	ug/L		97
69) cis-1,3-dichloropropene	13.099	75	370753	94.93	ug/L		98
70) 4-methyl-2-pentanone	13.199	58	648481	387.90	ug/L		99
71) 3-methyl-1-butanol	13.204	55	655436	1842.11	ug/L		99
74) toluene	13.456	92	568674	94.10	ug/L		98
75) ethyl methacrylate	13.618	69	331717	94.97	ug/L		96
76) trans-1,3-dichloropropene	13.634	75	358636	95.69	ug/L		100
77) 1,1,2-trichloroethane	13.844	83	191391	95.27	ug/L		97
78) 2-hexanone	13.991	58	598531	371.47	ug/L		97
79) tetrachloroethene	13.970	164	212119	94.05	ug/L		97
80) 1,3-dichloropropane	14.012	76	364284	97.33	ug/L		97
81) butyl acetate	14.059	56	204468	93.03	ug/L		100
82) dibromochloromethane	14.242	129	294131	98.57	ug/L		99
83) 1,2-dibromoethane	14.384	107	261441	95.23	ug/L		98
84) n-butyl ether	14.772	57	1033612	93.07	ug/L		100
85) chlorobenzene	14.829	112	682773	95.78	ug/L		99
86) 1,1,1,2-tetrachloroethane	14.892	131	328265	97.65	ug/L		98
87) ethylbenzene	14.882	91	1202083	96.28	ug/L		100
88) m,p-xylene	14.992	106	892035	187.56	ug/L		100
89) o-xylene	15.370	106	505701	96.55	ug/L		97
90) styrene	15.380	104	800378	96.36	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185731.D
Acq On : 24 Sep 2021 8:34 pm
Operator : thienn
Sample : ic8274-100
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 09:02:07 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration

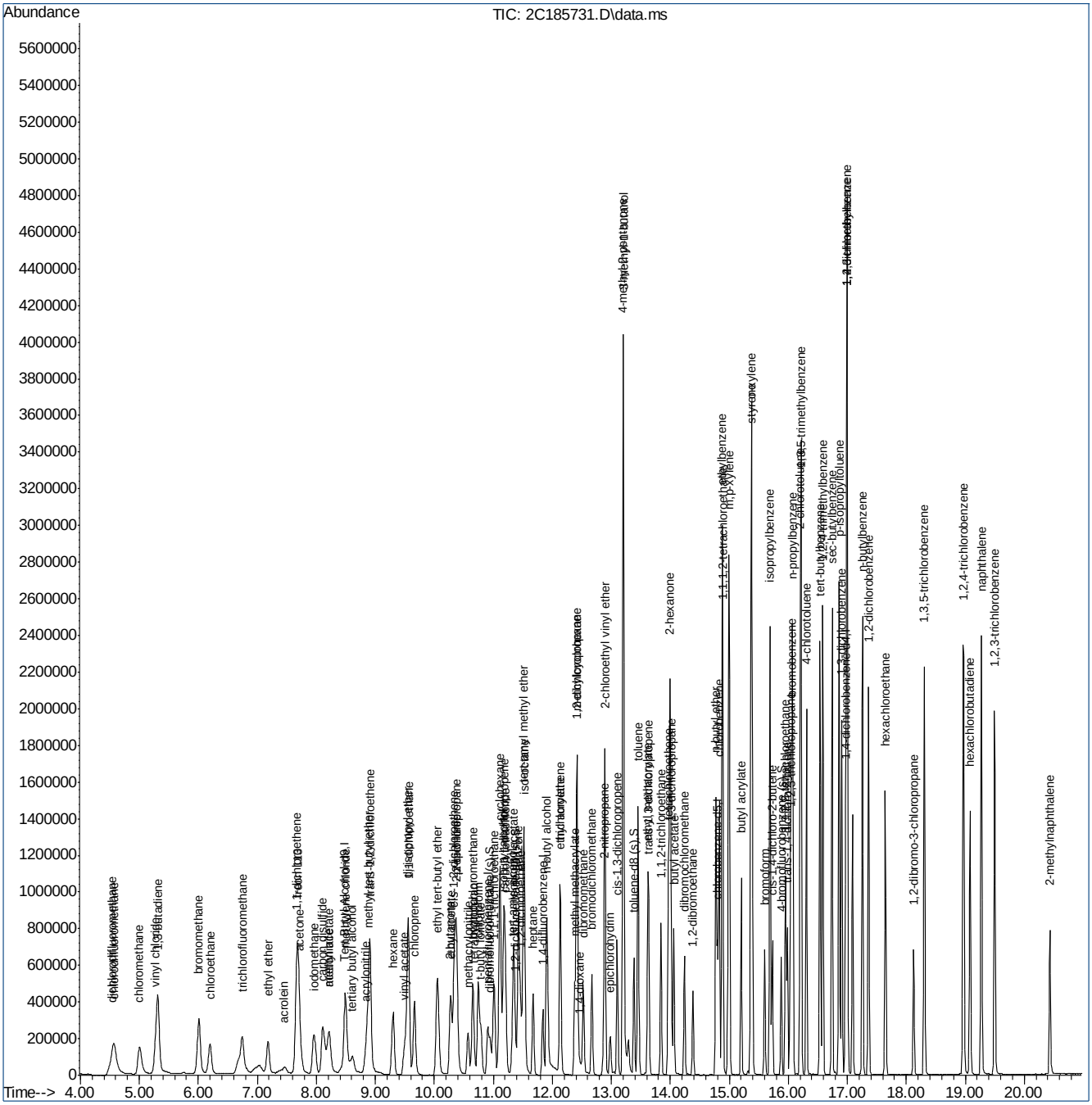
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	butyl acrylate	15.202	55	587212	91.52	ug/L	99
92)	bromoform	15.600	173	271874	98.43	ug/L	99
93)	isopropylbenzene	15.689	105	1342959	94.02	ug/L	100
94)	cis-1,4-dichloro-2-butene	15.731	75	134044	97.12	ug/L	96
97)	bromobenzene	16.056	156	362536	94.09	ug/L	97
98)	1,1,2,2-tetrachloroethane	15.957	83	431051	90.71	ug/L	99
99)	trans-1,4-dichloro-2-b...	15.983	88	72151	93.86	ug/L	98
100)	1,2,3-trichloropropane	16.035	110	121741	91.18	ug/L	98
101)	n-propylbenzene	16.072	91	1511853	93.10	ug/L	99
102)	2-chlorotoluene	16.203	126	331058	95.81	ug/L	98
103)	4-chlorotoluene	16.308	91	921633	94.07	ug/L	99
104)	1,3,5-trimethylbenzene	16.219	105	1203380	97.26	ug/L	100
105)	tert-butylbenzene	16.533	119	973484	96.03	ug/L	98
106)	1,2,4-trimethylbenzene	16.586	105	1200928	96.28	ug/L	98
107)	sec-butylbenzene	16.743	105	1506664	95.57	ug/L	100
108)	1,3-dichlorobenzene	16.906	146	677121	92.85	ug/L	99
109)	p-isopropyltoluene	16.864	119	1292251	94.41	ug/L	99
110)	1,2,3-trimethylbenzene	16.990	105	1369697	98.36	ug/L	99
111)	1,4-dichlorobenzene	16.995	146	730168	97.08	ug/L	99
112)	1,2-dichlorobenzene	17.362	146	726197	94.00	ug/L	98
113)	n-butylbenzene	17.257	92	624151	92.60	ug/L	97
114)	1,2-dibromo-3-chloropr...	18.122	75	141414	94.90	ug/L	96
115)	1,3,5-trichlorobenzene	18.306	180	655826	95.78	ug/L	99
116)	1,2,4-trichlorobenzene	18.966	180	629308	96.84	ug/L	97
117)	hexachlorobutadiene	19.082	225	294026	94.02	ug/L	97
118)	naphthalene	19.276	128	1746316	95.78	ug/L	100
119)	1,2,3-trichlorobenzene	19.496	180	568230	96.15	ug/L	99
120)	hexachloroethane	17.645	201	236800	102.46	ug/L	97
121)	2-methylnaphthalene	20.434	142	363238	49.31	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185731.D
Acq On : 24 Sep 2021 8:34 pm
Operator : thienn
Sample : ic8274-100
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 27 09:02:07 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 08:54:11 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185732.D
Acq On : 24 Sep 2021 9:03 pm
Operator : thienn
Sample : ic8274-200
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 09:47:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:26 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.491	65	295050	500.00	ug/L		0.00
5) pentafluorobenzene	10.908	168	236855	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	345248	50.00	ug/L		0.00
72) chlorobenzene-d5	14.798	117	348807	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	237496	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.944	113	123846	49.81	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.62%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	140734	48.98	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.96%				
73) toluene-d8 (s)	13.388	98	430103	49.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.66%				
96) 4-bromofluorobenzene (s)	15.883	95	181973	49.02	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.04%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.622	59	689082	999.85	ug/L		95
4) 1,4-dioxane	12.465	88	264316	4981.83	ug/L		94
6) chlorodifluoromethane	4.579	51	742948	188.02	ug/L		98
7) dichlorodifluoromethane	4.548	85	946224	190.85	ug/L		98
8) chloromethane	5.004	50	847854	177.51	ug/L		98
9) vinyl chloride	5.277	62	909450	193.35	ug/L		99
10) 1,3-butadiene	5.313	54	722400	183.55	ug/L		96
11) bromomethane	6.005	94	839204	190.05	ug/L		98
12) chloroethane	6.199	64	619922	207.48	ug/L		99
13) trichlorofluoromethane	6.739	101	1290153	219.80	ug/L		96
14) ethyl ether	7.180	74	310567	218.45	ug/L		92
15) acrolein	7.463	56	144944	206.01	ug/L		96
16) freon 113	7.688	151	541847	208.70	ug/L		99
17) 1,1-dichloroethene	7.668	96	553697	194.58	ug/L		94
18) acetone	7.709	58	396680	849.27	ug/L	#	81
19) iodomethane	7.961	142	1070135	207.94	ug/L		96
20) acetonitrile	8.218	41	942899	1845.92	ug/L		99
21) carbon disulfide	8.108	76	1863745	205.53	ug/L		98
22) methylene chloride	8.491	84	620831	191.96	ug/L		95
23) methyl acetate	8.218	43	591800	204.94	ug/L		100
24) methyl tert butyl ether	8.889	73	1870483	201.60	ug/L		97
25) trans-1,2-dichloroethene	8.915	96	563545	196.12	ug/L		96
26) hexane	9.303	56	330820	202.32	ug/L		98
27) di-isopropyl ether	9.550	45	1736349	209.95	ug/L		100
28) 1,1-dichloroethane	9.560	63	944616	211.38	ug/L		99
29) chloroprene	9.665	53	752889	210.63	ug/L		96
30) acrylonitrile	8.837	53	293157	203.53	ug/L		95
31) vinyl acetate	9.497	86	89395	203.52	ug/L	#	73
32) ethyl tert-butyl ether	10.053	59	1774361	215.69	ug/L		99
33) 2-butanone	10.273	72	375625	890.32	ug/L		93
34) ethyl acetate	10.284	45	100596	222.73	ug/L	#	85
35) 2,2-dichloropropane	10.378	77	880065	204.12	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185732.D
Acq On : 24 Sep 2021 9:03 pm
Operator : thienn
Sample : ic8274-200
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 09:47:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:26 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) cis-1,2-dichloroethene	10.336	96	611368	194.44	ug/L		97
37) propionitrile	10.373	54	1272087	2154.76	ug/L		96
38) bromochloromethane	10.651	128	328083	205.03	ug/L		98
39) tetrahydrofuran	10.672	71	107164	208.82	ug/L		95
40) chloroform	10.745	83	1009105	206.82	ug/L		99
41) t-butyl formate	10.787	59	477734	219.89	ug/L		98
43) methacrylonitrile	10.572	67	264990	212.61	ug/L		98
44) 1,1,1-trichloroethane	11.013	97	1064064	207.64	ug/L		95
45) cyclohexane	11.117	84	916899	207.46	ug/L		88
46) 1,1-dichloropropene	11.175	75	693002	219.89	ug/L		99
47) carbon tetrachloride	11.207	117	959575	223.42	ug/L		99
48) isobutyl alcohol	11.180	42	249067	1839.03	ug/L		87
51) n-butyl alcohol	11.909	56	1743394	9759.91	ug/L		99
52) tert-amyl alcohol	11.343	55	243330	870.28	ug/L		95
53) iso-octane	11.521	57	1509020	216.95	ug/L		96
54) benzene	11.427	78	1986726	209.33	ug/L		100
55) tert-amyl methyl ether	11.516	87	482720	209.61	ug/L		93
56) heptane	11.673	57	267399	200.27	ug/L		94
57) isopropyl acetate	11.348	87	151131	212.93	ug/L	#	88
58) 1,2-dichloroethane	11.463	62	794401	200.65	ug/L		98
59) ethyl acrylate	12.129	55	801251	211.84	ug/L		98
60) trichloroethene	12.135	95	572704	223.34	ug/L		98
61) 2-nitropropane	12.879	41	327257	225.99	ug/L	#	84
62) 2-chloroethyl vinyl ether	12.895	63	1688130	1150.17	ug/L		99
63) methyl methacrylate	12.381	100	158411	214.22	ug/L		95
64) 1,2-dichloropropane	12.423	63	537313	219.15	ug/L		99
65) dibromomethane	12.523	93	406960	211.05	ug/L		97
66) methylcyclohexane	12.418	83	1129876	220.56	ug/L		98
67) bromodichloromethane	12.669	83	762486	219.76	ug/L		99
68) epichlorohydrin	12.984	57	410504	1041.27	ug/L		99
69) cis-1,3-dichloropropene	13.099	75	848778	222.48	ug/L		97
70) 4-methyl-2-pentanone	13.204	58	1554413	951.22	ug/L		99
71) 3-methyl-1-butanol	13.204	55	1497033	4040.91	ug/L		98
74) toluene	13.456	92	1331589	221.76	ug/L		99
75) ethyl methacrylate	13.618	69	752190	211.47	ug/L		96
76) trans-1,3-dichloropropene	13.634	75	839599	227.64	ug/L		99
77) 1,1,2-trichloroethane	13.844	83	432678	210.26	ug/L		98
78) 2-hexanone	13.996	58	1379441	855.23	ug/L		99
79) tetrachloroethene	13.970	164	503477	220.31	ug/L		98
80) 1,3-dichloropropane	14.012	76	830264	217.05	ug/L		98
81) butyl acetate	14.059	56	446781	190.91	ug/L		99
82) dibromochloromethane	14.242	129	673505	235.36	ug/L		99
83) 1,2-dibromoethane	14.384	107	585739	217.29	ug/L		99
84) n-butyl ether	14.772	57	2353312	206.46	ug/L		100
85) chlorobenzene	14.829	112	1570611	218.88	ug/L		99
86) 1,1,1,2-tetrachloroethane	14.892	131	777411	235.43	ug/L		98
87) ethylbenzene	14.882	91	2890800	229.71	ug/L		99
88) m,p-xylene	14.992	106	2160737	463.81	ug/L		98
89) o-xylene	15.370	106	1216174	233.91	ug/L		97
90) styrene	15.380	104	1958903	235.39	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185732.D
Acq On : 24 Sep 2021 9:03 pm
Operator : thienn
Sample : ic8274-200
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 09:47:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:26 2021
Response via : Initial Calibration

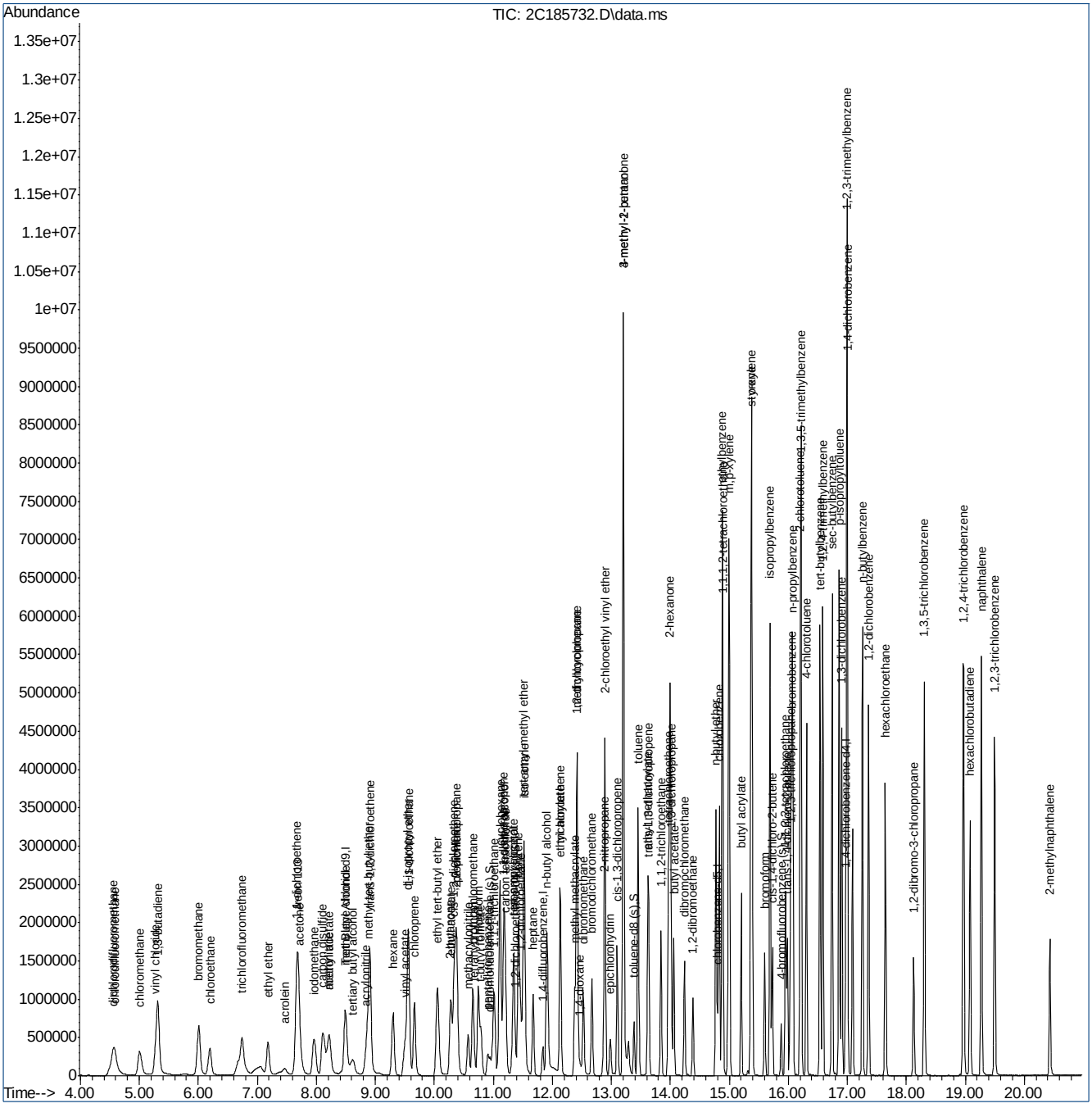
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	butyl acrylate	15.202	55	1295477	188.56	ug/L	99
92)	bromoform	15.600	173	626024	239.96	ug/L	99
93)	isopropylbenzene	15.689	105	3180917	232.40	ug/L	99
94)	cis-1,4-dichloro-2-butene	15.731	75	297711	216.65	ug/L	96
97)	bromobenzene	16.056	156	854348	222.43	ug/L	99
98)	1,1,2,2-tetrachloroethane	15.957	83	967727	210.24	ug/L	100
99)	trans-1,4-dichloro-2-b...	15.983	88	165506	213.99	ug/L	97
100)	1,2,3-trichloropropane	16.035	110	274536	200.11	ug/L	97
101)	n-propylbenzene	16.077	91	3589442	222.87	ug/L	99
102)	2-chlorotoluene	16.203	126	782275	233.25	ug/L	96
103)	4-chlorotoluene	16.308	91	2150690	220.03	ug/L	98
104)	1,3,5-trimethylbenzene	16.219	105	2904282	233.85	ug/L	99
105)	tert-butylbenzene	16.539	119	2379097	241.67	ug/L	98
106)	1,2,4-trimethylbenzene	16.581	105	2833291	232.43	ug/L	99
107)	sec-butylbenzene	16.743	105	3619974	232.92	ug/L	100
108)	1,3-dichlorobenzene	16.906	146	1563686	218.42	ug/L	100
109)	p-isopropyltoluene	16.864	119	3128648	232.08	ug/L	100
110)	1,2,3-trimethylbenzene	16.990	105	3304264	234.77	ug/L	98
111)	1,4-dichlorobenzene	17.000	146	1744280	228.46	ug/L	99
112)	1,2-dichlorobenzene	17.362	146	1653239	213.34	ug/L	98
113)	n-butylbenzene	17.257	92	1472336	218.90	ug/L	98
114)	1,2-dibromo-3-chloropr...	18.122	75	316767	209.70	ug/L	98
115)	1,3,5-trichlorobenzene	18.306	180	1509248	225.14	ug/L	99
116)	1,2,4-trichlorobenzene	18.971	180	1424846	224.05	ug/L	98
117)	hexachlorobutadiene	19.082	225	681952	220.80	ug/L	98
118)	naphthalene	19.276	128	3969455	221.37	ug/L	99
119)	1,2,3-trichlorobenzene	19.496	180	1268749	222.31	ug/L	99
120)	hexachloroethane	17.645	201	586800	212.97	ug/L	95
121)	2-methylnaphthalene	20.434	142	819009	111.44	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185732.D
Acq On : 24 Sep 2021 9:03 pm
Operator : thienn
Sample : ic8274-200
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 27 09:47:38 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:26 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185735.D
Acq On : 24 Sep 2021 10:30 pm
Operator : thienn
Sample : icv8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 17:41:58 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.490	65	271418	500.00	ug/L		0.00
5) pentafluorobenzene	10.907	168	199314	50.00	ug/L		0.00
49) 1,4-difluorobenzene	11.841	114	294160	50.00	ug/L		0.00
72) chlorobenzene-d5	14.798	117	298568	50.00	ug/L		0.00
95) 1,4-dichlorobenzene-d4	16.974	152	202454	50.00	ug/L		0.00
System Monitoring Compounds							
42) dibromofluoromethane (s)	10.944	113	104570	49.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.96%				
50) 1,2-dichloroethane-d4 (s)	11.374	65	119993	49.01	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.02%				
73) toluene-d8 (s)	13.387	98	372748	50.45	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.90%				
96) 4-bromofluorobenzene (s)	15.878	95	160455	50.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.42%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.616	59	166862	263.09	ug/L		97
4) 1,4-dioxane	12.470	88	62981	1290.42	ug/L		91
7) dichlorodifluoromethane	4.542	85	182197	43.66	ug/L		100
8) chloromethane	5.004	50	195330	48.60	ug/L		95
9) vinyl chloride	5.271	62	223376	56.43	ug/L		98
10) 1,3-butadiene	5.318	54	174010	52.54	ug/L		97
11) bromomethane	6.005	94	197332	53.10	ug/L		99
12) chloroethane	6.199	64	131029	52.11	ug/L		97
13) trichlorofluoromethane	6.739	101	269909	54.64	ug/L		92
14) ethyl ether	7.180	74	62841	52.53	ug/L		92
15) acrolein	7.473	56	34320	57.97	ug/L		92
16) freon 113	7.688	151	112844	51.65	ug/L		97
17) 1,1-dichloroethene	7.667	96	115108	48.08	ug/L	#	80
18) acetone	7.699	58	73817	187.80	ug/L		89
19) iodomethane	7.966	142	234005	54.03	ug/L		99
21) carbon disulfide	8.108	76	387268	50.75	ug/L		96
22) methylene chloride	8.490	84	132856	48.82	ug/L		97
23) methyl acetate	8.212	43	111346	45.82	ug/L		96
24) methyl tert butyl ether	8.883	73	422807	54.15	ug/L		98
25) trans-1,2-dichloroethene	8.910	96	118375	48.96	ug/L		98
26) hexane	9.303	56	75682	55.00	ug/L		97
27) di-isopropyl ether	9.549	45	341286	49.04	ug/L		99
28) 1,1-dichloroethane	9.560	63	199157	52.95	ug/L		99
29) chloroprene	9.665	53	160121	53.23	ug/L		96
31) vinyl acetate	9.497	86	22084	59.75	ug/L	#	74
32) ethyl tert-butyl ether	10.047	59	402535	58.15	ug/L		97
33) 2-butanone	10.283	72	80513	226.78	ug/L		98
34) ethyl acetate	10.278	45	20651	54.34	ug/L	#	93
35) 2,2-dichloropropane	10.373	77	182355	50.26	ug/L		97
36) cis-1,2-dichloroethene	10.336	96	131888	49.85	ug/L		97
37) propionitrile	10.373	54	280660	564.86	ug/L		98
38) bromochloromethane	10.656	128	71673	53.23	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185735.D
Acq On : 24 Sep 2021 10:30 pm
Operator : thienn
Sample : icv8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 17:41:58 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) tetrahydrofuran	10.661	71	23961	55.48	ug/L	#	78
40) chloroform	10.745	83	214357	52.21	ug/L		98
41) t-butyl formate	10.787	59	94418	51.64	ug/L		97
43) methacrylonitrile	10.572	67	57292	54.62	ug/L		93
44) 1,1,1-trichloroethane	11.007	97	229089	53.12	ug/L		95
45) cyclohexane	11.112	84	236030	63.46	ug/L		96
46) 1,1-dichloropropene	11.180	75	147060	55.45	ug/L		98
47) carbon tetrachloride	11.206	117	203318	56.26	ug/L		95
48) isobutyl alcohol	11.169	42	63408	563.49	ug/L		89
51) n-butyl alcohol	11.909	56	404637	2658.66	ug/L		98
52) tert-amyl alcohol	11.332	55	62689	263.15	ug/L	#	84
53) iso-octane	11.515	57	405589	68.44	ug/L		97
54) benzene	11.426	78	425785	52.66	ug/L		100
55) tert-amyl methyl ether	11.510	87	101857	51.91	ug/L		99
56) heptane	11.673	57	60826	53.47	ug/L		97
57) isopropyl acetate	11.348	87	31188	51.57	ug/L	#	90
58) 1,2-dichloroethane	11.463	62	174428	51.71	ug/L		98
59) ethyl acrylate	12.129	55	175134	54.35	ug/L		98
60) trichloroethene	12.139	95	120596	55.20	ug/L		98
61) 2-nitropropane	12.879	41	67943	55.07	ug/L		94
62) 2-chloroethyl vinyl ether	12.889	63	402688	322.01	ug/L		99
63) methyl methacrylate	12.386	100	37033	58.78	ug/L		95
64) 1,2-dichloropropane	12.417	63	111813	53.52	ug/L		97
65) dibromomethane	12.527	93	90495	55.08	ug/L		100
66) methylcyclohexane	12.417	83	239103	54.78	ug/L		98
67) bromodichloromethane	12.669	83	161780	54.73	ug/L		96
68) epichlorohydrin	12.978	57	105196	313.19	ug/L		94
69) cis-1,3-dichloropropene	13.099	75	176848	54.41	ug/L		97
70) 4-methyl-2-pentanone	13.198	58	315430	226.55	ug/L		99
71) 3-methyl-1-butanol	13.204	55	331579	1050.47	ug/L		98
74) toluene	13.455	92	284534	55.36	ug/L		100
75) ethyl methacrylate	13.618	69	165572	54.38	ug/L		98
76) trans-1,3-dichloropropene	13.634	75	180738	57.25	ug/L		99
77) 1,1,2-trichloroethane	13.843	83	94202	53.48	ug/L		96
78) 2-hexanone	13.990	58	295016	213.68	ug/L		97
80) 1,3-dichloropropane	14.011	76	179842	54.92	ug/L		99
81) butyl acetate	14.058	56	100604	50.22	ug/L		97
82) dibromochloromethane	14.242	129	148070	60.45	ug/L		99
83) 1,2-dibromoethane	14.383	107	130854	56.71	ug/L		98
84) n-butyl ether	14.771	57	501406	51.39	ug/L		99
85) chlorobenzene	14.829	112	340254	55.40	ug/L		98
86) 1,1,1,2-tetrachloroethane	14.887	131	158732	56.16	ug/L		95
87) ethylbenzene	14.882	91	593181	55.07	ug/L		100
88) m,p-xylene	14.992	106	448649	112.51	ug/L		97
89) o-xylene	15.369	106	243607	54.74	ug/L		97
90) styrene	15.380	104	382148	53.65	ug/L		98
91) butyl acrylate	15.201	55	300328	51.07	ug/L		99
92) bromoform	15.600	173	129914	58.18	ug/L		98
93) isopropylbenzene	15.689	105	660069	56.34	ug/L		99
94) cis-1,4-dichloro-2-butene	15.726	75	65924	56.05	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185735.D
Acq On : 24 Sep 2021 10:30 pm
Operator : thienn
Sample : icv8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 17:41:58 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

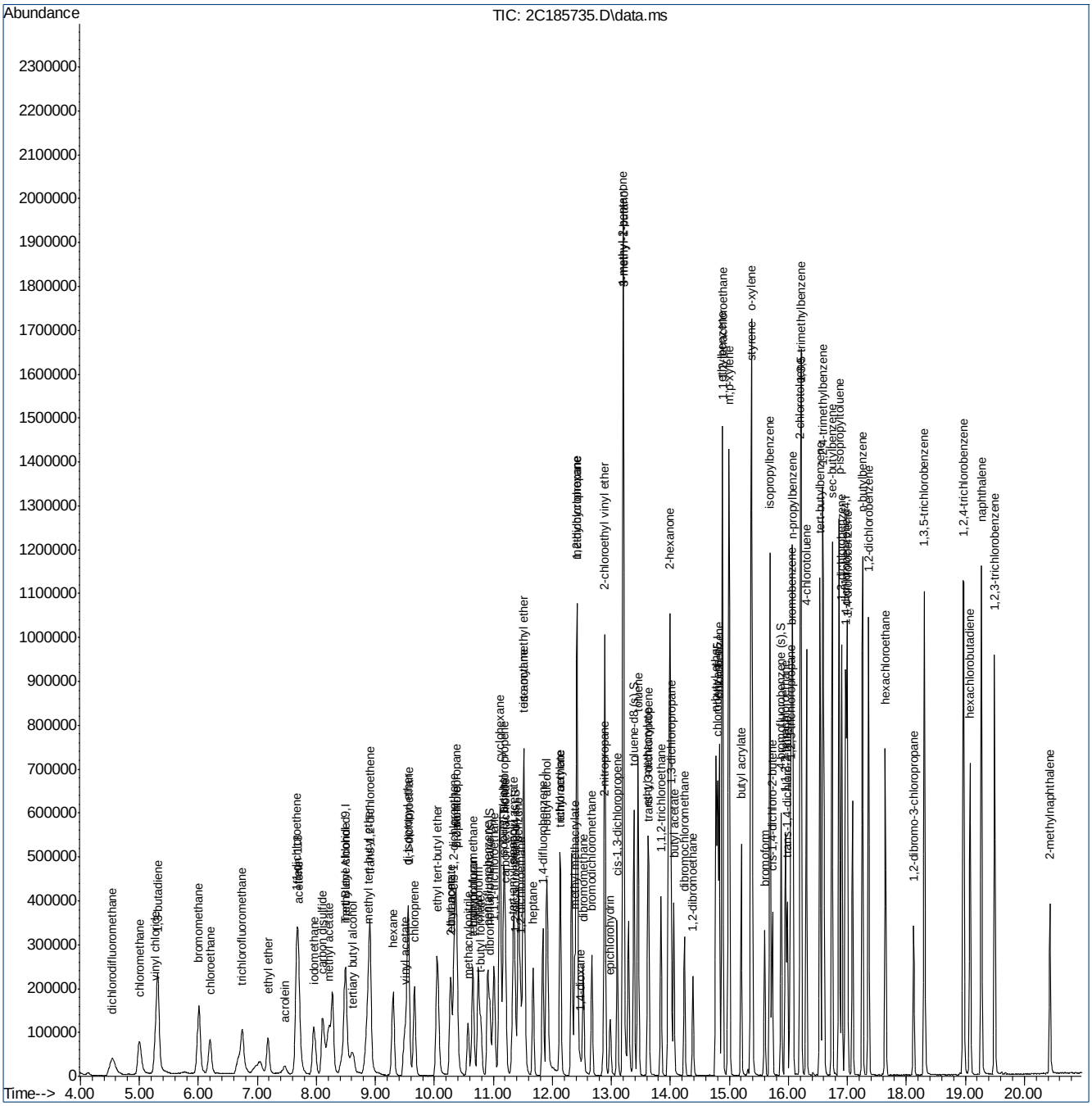
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	bromobenzene	16.056	156	180164	55.02	ug/L	99
98)	1,1,2,2-tetrachloroethane	15.951	83	226156	57.64	ug/L	100
99)	trans-1,4-dichloro-2-b...	15.983	88	35748	54.22	ug/L	98
100)	1,2,3-trichloropropane	16.035	110	60747	51.94	ug/L	99
101)	n-propylbenzene	16.077	91	756470	55.10	ug/L	99
102)	2-chlorotoluene	16.203	126	160659	56.20	ug/L	99
103)	4-chlorotoluene	16.308	91	454752	54.58	ug/L	99
104)	1,3,5-trimethylbenzene	16.218	105	581757	54.95	ug/L	99
105)	tert-butylbenzene	16.533	119	473371	56.41	ug/L	99
106)	1,2,4-trimethylbenzene	16.580	105	592462	57.02	ug/L	100
107)	sec-butylbenzene	16.743	105	738750	55.76	ug/L	100
108)	1,3-dichlorobenzene	16.905	146	338017	55.39	ug/L	99
109)	p-isopropyltoluene	16.863	119	631567	54.96	ug/L	99
111)	1,4-dichlorobenzene	17.000	146	340013	52.24	ug/L	98
112)	1,2-dichlorobenzene	17.361	146	357652	54.14	ug/L	98
113)	n-butylbenzene	17.257	92	308821	53.86	ug/L	98
114)	1,2-dibromo-3-chloropr...	18.122	75	69012	53.59	ug/L	98
115)	1,3,5-trichlorobenzene	18.305	180	323699	56.65	ug/L	99
116)	1,2,4-trichlorobenzene	18.966	180	302438	55.79	ug/L	96
117)	hexachlorobutadiene	19.081	225	143463	54.49	ug/L	99
118)	naphthalene	19.275	128	853108	55.81	ug/L	100
119)	1,2,3-trichlorobenzene	19.495	180	277117	56.96	ug/L	97
120)	hexachloroethane	17.645	201	111357	48.68	ug/L	98
121)	2-methylnaphthalene	20.439	142	179623	28.67	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185735.D
Acq On : 24 Sep 2021 10:30 pm
Operator : thienn
Sample : icv8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 27 17:41:58 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185736.D
Acq On : 24 Sep 2021 10:59 pm
Operator : thienn
Sample : icv8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 27 17:43:03 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

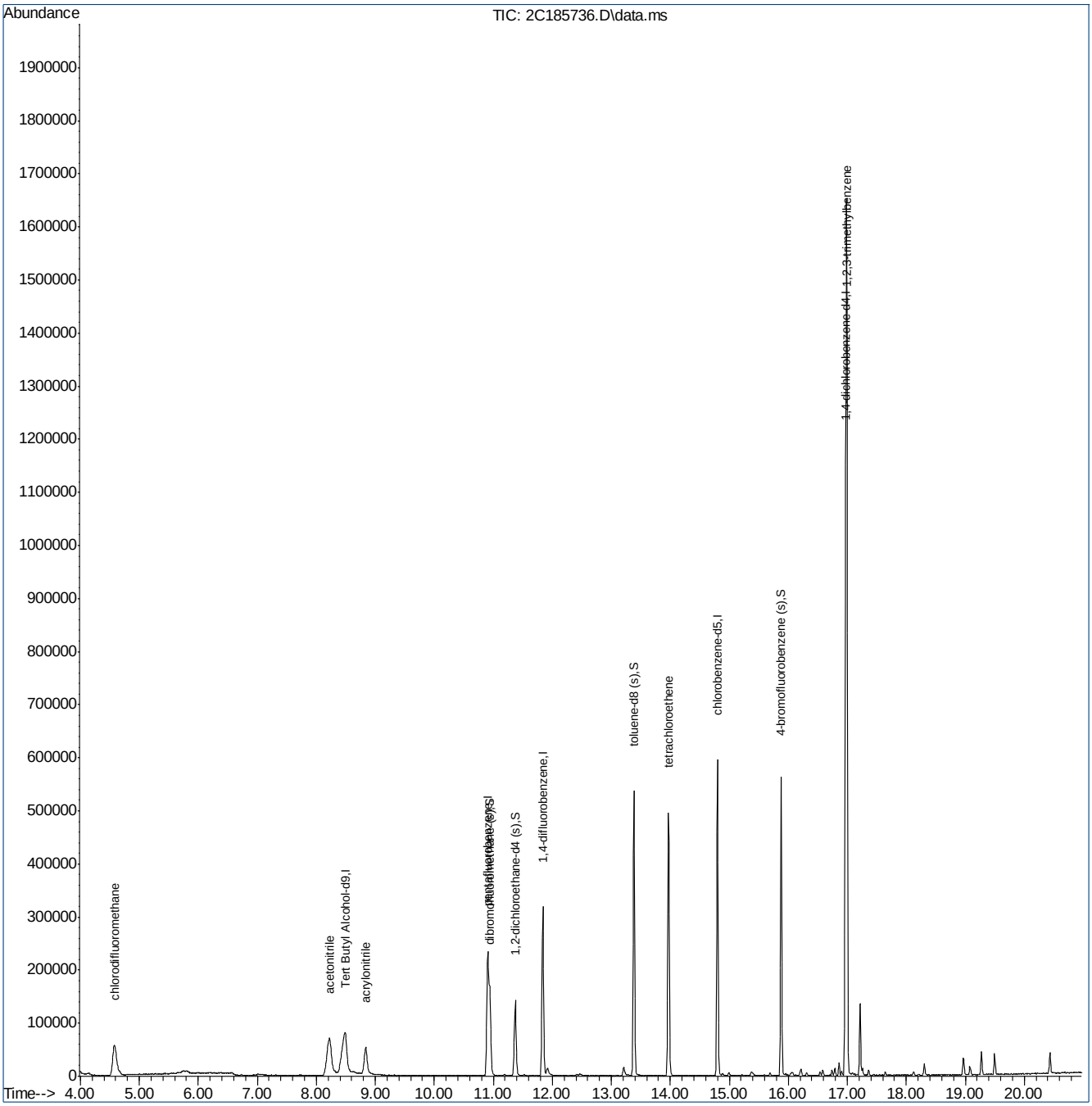
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.491	65	277112	500.00	ug/L	0.00
5) pentafluorobenzene	10.908	168	194067	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.841	114	279082	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	279441	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.974	152	199075	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.944	113	100949	49.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.10%			
50) 1,2-dichloroethane-d4 (s)	11.374	65	113521	48.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.74%			
73) toluene-d8 (s)	13.388	98	343112	49.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.24%			
96) 4-bromofluorobenzene (s)	15.878	95	154908	49.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%			
Target Compounds						Qvalue
6) chlorodifluoromethane	4.579	51	198216	61.22	ug/L	91
20) acetonitrile	8.223	41	228001	544.77	ug/L	96
30) acrylonitrile	8.837	53	70769	59.96	ug/L	96
79) tetrachloroethene	13.970	164	94645	51.70	ug/L	96
110) 1,2,3-trimethylbenzene	16.990	105	715766	60.67	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2C8274\
Data File : 2C185736.D
Acq On : 24 Sep 2021 10:59 pm
Operator : thienn
Sample : icv8274-50
Misc : MS53581,V2C8274,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 27 17:43:03 2021
Quant Method : C:\MSDCHEM\1\METHODS\M2C8274.M
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187620.d
Acq On : 17 Nov 2021 9:18 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54952,V2C8352,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:10:30 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.454	65	236713	500.00	ug/L	-0.04
5) pentafluorobenzene	10.902	168	212738	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.836	114	359077	50.00	ug/L	0.00
72) chlorobenzene-d5	14.793	117	585997	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.969	152	345891	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.939	113	116873	52.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.66%			
50) 1,2-dichloroethane-d4 (s)	11.364	65	136467	45.66	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.32%			
73) toluene-d8 (s)	13.382	98	616552	42.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.04%			
96) 4-bromofluorobenzene (s)	15.878	95	286415	52.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.96%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.595	59	126713	229.08	ug/L	97
4) 1,4-dioxane	12.454	88	84692	1989.67	ug/L	90
6) chlorodifluoromethane	4.579	51	106571	30.03	ug/L	89
7) dichlorodifluoromethane	4.553	85	194313	43.63	ug/L	98
8) chloromethane	5.009	50	187575	43.73	ug/L	98
9) vinyl chloride	5.282	62	206669	48.92	ug/L	98
10) 1,3-butadiene	5.329	54	172169	48.70	ug/L	96
11) bromomethane	6.021	94	295681	74.55	ug/L	99
12) chloroethane	6.199	64	202424	75.43	ug/L	95
13) trichlorofluoromethane	6.745	101	264660	50.20	ug/L	93
14) ethyl ether	7.180	74	58760	46.02	ug/L	87
15) acrolein	7.452	56	31551	49.93	ug/L	99
16) freon 113	7.683	151	105047	45.05	ug/L	97
17) 1,1-dichloroethene	7.662	96	106197	41.56	ug/L	85
18) acetone	7.694	58	76685	182.79	ug/L	94
19) iodomethane	7.956	142	221988	48.02	ug/L	98
20) acetonitrile	8.197	41	163085	355.47	ug/L	98
21) carbon disulfide	8.103	76	359986	44.20	ug/L	93
22) methylene chloride	8.480	84	131267	45.19	ug/L	90
23) methyl acetate	8.213	43	93044	35.87	ug/L	98
24) methyl tert butyl ether	8.879	73	377629	45.31	ug/L	98
25) trans-1,2-dichloroethene	8.910	96	115282	44.67	ug/L	91
26) hexane	9.298	56	57684	39.28	ug/L	97
27) di-isopropyl ether	9.539	45	301845	40.63	ug/L	90
28) 1,1-dichloroethane	9.555	63	177793	44.29	ug/L	97
29) chloroprene	9.660	53	127333	39.66	ug/L	91
30) acrylonitrile	8.831	53	64788	50.08	ug/L	99
31) vinyl acetate	9.487	86	22736	57.63	ug/L #	73
32) ethyl tert-butyl ether	10.043	59	338806	45.85	ug/L	97
33) 2-butanone	10.268	72	77656	204.93	ug/L #	70
34) ethyl acetate	10.273	45	16084	39.65	ug/L #	76
35) 2,2-dichloropropane	10.368	77	199630	51.55	ug/L	97
36) cis-1,2-dichloroethene	10.326	96	124204	43.98	ug/L	92
37) propionitrile	10.362	54	230909	435.41	ug/L	97
38) bromochloromethane	10.645	128	69326	48.24	ug/L	87
39) tetrahydrofuran	10.661	71	21220	46.04	ug/L #	74
40) chloroform	10.740	83	212645	48.52	ug/L	96
41) t-butyl formate	10.777	59	88586	45.40	ug/L	98
43) methacrylonitrile	10.562	67	51676	46.16	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187620.d
Acq On : 17 Nov 2021 9:18 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54952,V2C8352,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:10:30 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 1,1,1-trichloroethane	11.002	97	213126	46.30	ug/L		97
45) cyclohexane	11.112	84	210975	53.15	ug/L		90
46) 1,1-dichloropropene	11.170	75	150500	53.17	ug/L		97
47) carbon tetrachloride	11.201	117	206767	53.60	ug/L		95
48) isobutyl alcohol	11.165	42	40585	337.91	ug/L		88
51) n-butyl alcohol	11.904	56	440709	2372.17	ug/L		99
52) tert-amyl alcohol	11.327	55	55062	189.35	ug/L	#	78
53) iso-octane	11.511	57	483386	66.82	ug/L		98
54) benzene	11.421	78	470885	47.70	ug/L		99
55) tert-amyl methyl ether	11.505	87	124221	51.86	ug/L	#	87
56) heptane	11.668	57	70174	50.53	ug/L		96
57) isopropyl acetate	11.338	87	36180	49.01	ug/L	#	79
58) 1,2-dichloroethane	11.453	62	175474	42.61	ug/L		97
59) ethyl acrylate	12.124	55	191153	48.59	ug/L		99
60) trichloroethene	12.129	95	142956	53.60	ug/L		95
61) 2-nitropropane	12.874	41	74316	49.34	ug/L		96
62) 2-chloroethyl vinyl ether	12.884	63	434964	284.94	ug/L		98
63) methyl methacrylate	12.376	100	43669	56.78	ug/L	#	82
64) 1,2-dichloropropane	12.412	63	138662	54.38	ug/L		99
65) dibromomethane	12.517	93	110226	54.96	ug/L		96
66) methylcyclohexane	12.412	83	287992	54.05	ug/L		93
67) bromodichloromethane	12.664	83	214718	59.50	ug/L		100
68) epichlorohydrin	12.973	57	113226	276.16	ug/L		97
69) cis-1,3-dichloropropene	13.094	75	243212	61.30	ug/L		95
70) 4-methyl-2-pentanone	13.194	58	427636	251.61	ug/L		88
71) 3-methyl-1-butanol	13.199	55	416497	1080.94	ug/L		92
74) toluene	13.451	92	425421	42.17	ug/L		99
75) ethyl methacrylate	13.613	69	244973	41.00	ug/L		93
76) trans-1,3-dichloropropene	13.629	75	265150	42.79	ug/L		90
77) 1,1,2-trichloroethane	13.839	83	139338	40.31	ug/L		97
78) 2-hexanone	13.985	58	456847	168.59	ug/L		95
79) tetrachloroethene	13.970	164	166159	43.28	ug/L		96
80) 1,3-dichloropropane	14.006	76	287340	44.71	ug/L		86
81) butyl acetate	14.053	56	151334	38.49	ug/L		94
82) dibromochloromethane	14.237	129	223937	46.58	ug/L		96
83) 1,2-dibromoethane	14.384	107	202908	44.80	ug/L		97
84) n-butyl ether	14.772	57	750604	39.20	ug/L		95
85) chlorobenzene	14.824	112	581146	48.21	ug/L		95
86) 1,1,1,2-tetrachloroethane	14.882	131	266822	48.10	ug/L		99
87) ethylbenzene	14.877	91	980445	46.37	ug/L		97
88) m,p-xylene	14.987	106	762819	97.47	ug/L		92
89) o-xylene	15.364	106	431325	49.38	ug/L		94
90) styrene	15.375	104	681580	48.75	ug/L		93
91) butyl acrylate	15.196	55	429620	37.22	ug/L		96
92) bromoform	15.595	173	223540	51.00	ug/L		99
93) isopropylbenzene	15.684	105	1125480	48.94	ug/L		99
94) cis-1,4-dichloro-2-butene	15.721	75	67394	29.19	ug/L	#	87
97) bromobenzene	16.051	156	312201	55.81	ug/L		95
98) 1,1,2,2-tetrachloroethane	15.951	83	384329	57.33	ug/L		100
99) trans-1,4-dichloro-2-b...	15.978	88	38005	33.74	ug/L		85
100) 1,2,3-trichloropropane	16.030	110	102714	51.41	ug/L		97
101) n-propylbenzene	16.072	91	1291999	55.08	ug/L		95
102) 2-chlorotoluene	16.198	126	282732	57.88	ug/L		94
103) 4-chlorotoluene	16.303	91	753100	52.90	ug/L		95
104) 1,3,5-trimethylbenzene	16.214	105	982219	54.30	ug/L		99
105) tert-butylbenzene	16.528	119	818613	57.10	ug/L		94
106) 1,2,4-trimethylbenzene	16.581	105	1007274	56.74	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187620.d
Acq On : 17 Nov 2021 9:18 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54952,V2C8352,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:10:30 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

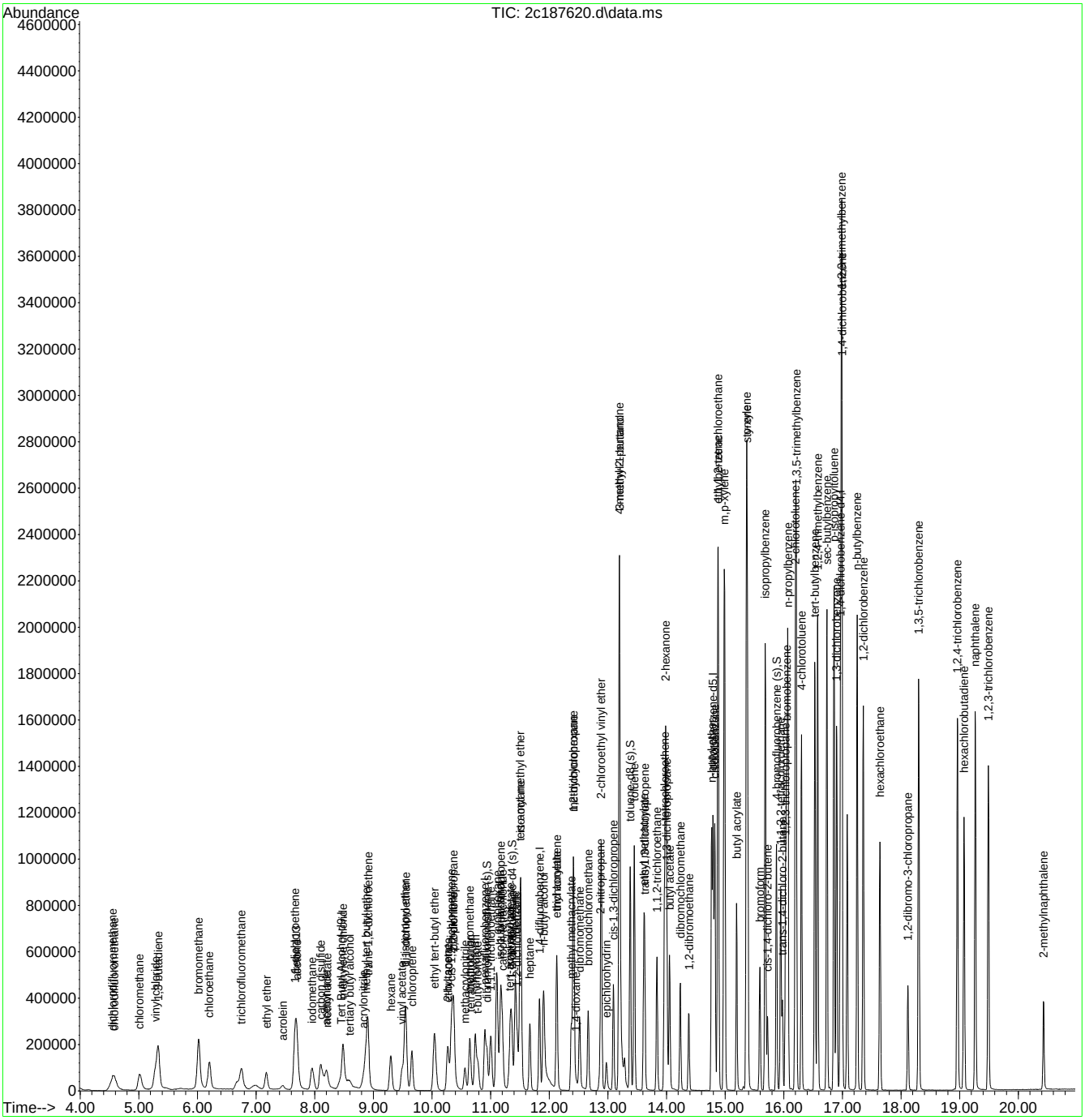
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) sec-butylbenzene	16.738	105	1304440	57.63	ug/L	98
108) 1,3-dichlorobenzene	16.900	146	608193	58.33	ug/L	98
109) p-isopropyltoluene	16.858	119	1128698	57.49	ug/L	97
110) 1,2,3-trimethylbenzene	16.984	105	1131845	55.22	ug/L	99
111) 1,4-dichlorobenzene	16.995	146	657045	59.09	ug/L	97
112) 1,2-dichlorobenzene	17.357	146	632590	56.05	ug/L	97
113) n-butylbenzene	17.252	92	547089	55.85	ug/L	98
114) 1,2-dibromo-3-chloropr...	18.117	75	96519	43.87	ug/L	84
115) 1,3,5-trichlorobenzene	18.300	180	558850	57.24	ug/L	94
116) 1,2,4-trichlorobenzene	18.961	180	501636	54.16	ug/L	97
117) hexachlorobutadiene	19.076	225	235282	52.31	ug/L	98
118) naphthalene	19.265	128	1218385	46.65	ug/L	99
119) 1,2,3-trichlorobenzene	19.490	180	439693	52.90	ug/L	99
120) hexachloroethane	17.640	201	180711	46.32	ug/L	96
121) 2-methylnaphthalene	20.434	142	181253	16.93	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\davem1\11-18-21\v2c8352\
Data File : 2c187620.d
Acq On : 17 Nov 2021 9:18 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54952,V2C8352,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 18 02:10:30 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187669.d
Acq On : 18 Nov 2021 10:30 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:18:12 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.443	65	242073	500.00	ug/L	-0.05
5) pentafluorobenzene	10.908	168	214750	50.00	ug/L	0.00
49) 1,4-difluorobenzene	11.841	114	349118	50.00	ug/L	0.00
72) chlorobenzene-d5	14.798	117	551619	50.00	ug/L	0.00
95) 1,4-dichlorobenzene-d4	16.968	152	321519	50.00	ug/L	0.00
System Monitoring Compounds						
42) dibromofluoromethane (s)	10.944	113	118359	52.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.00%			
50) 1,2-dichloroethane-d4 (s)	11.369	65	131670	45.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.62%			
73) toluene-d8 (s)	13.382	98	589492	43.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.36%			
96) 4-bromofluorobenzene (s)	15.878	95	262296	52.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.40%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.574	59	120411	212.87	ug/L	75
4) 1,4-dioxane	12.454	88	84214	1934.63	ug/L	89
6) chlorodifluoromethane	4.590	51	141690	39.55	ug/L	99
7) dichlorodifluoromethane	4.569	85	188069	41.83	ug/L	99
8) chloromethane	5.014	50	254514	58.78	ug/L	99
9) vinyl chloride	5.287	62	239852	56.24	ug/L	99
10) 1,3-butadiene	5.329	54	227693	63.81	ug/L	99
11) bromomethane	6.021	94	311024	77.68	ug/L	95
12) chloroethane	6.210	64	212574	78.47	ug/L	94
13) trichlorofluoromethane	6.745	101	272711	51.24	ug/L	96
14) ethyl ether	7.185	74	62242	48.29	ug/L	95
15) acrolein	7.463	56	28293	44.35	ug/L	97
16) freon 113	7.688	151	120132	51.03	ug/L	97
17) 1,1-dichloroethene	7.662	96	117978	45.73	ug/L	84
18) acetone	7.709	58	57657	136.15	ug/L	94
19) iodomethane	7.956	142	237151	50.82	ug/L	99
20) acetonitrile	8.192	41	165807	358.01	ug/L	99
21) carbon disulfide	8.108	76	399356	48.57	ug/L	96
22) methylene chloride	8.491	84	136104	46.41	ug/L	93
23) methyl acetate	8.218	43	93117	35.57	ug/L	95
24) methyl tert butyl ether	8.884	73	377197	44.84	ug/L	98
25) trans-1,2-dichloroethene	8.915	96	126627	48.60	ug/L	91
26) hexane	9.303	56	73493	49.57	ug/L	95
27) di-isopropyl ether	9.555	45	317847	42.39	ug/L	97
28) 1,1-dichloroethane	9.560	63	188460	46.51	ug/L	96
29) chloroprene	9.665	53	132305	40.82	ug/L	89
30) acrylonitrile	8.837	53	59352	45.45	ug/L	94
31) vinyl acetate	9.497	86	22615	56.79	ug/L	98
32) ethyl tert-butyl ether	10.048	59	347679	46.61	ug/L	95
33) 2-butanone	10.268	72	69359	181.32	ug/L #	73
34) ethyl acetate	10.278	45	18315	44.73	ug/L #	92
35) 2,2-dichloropropane	10.368	77	202451	51.79	ug/L	97
36) cis-1,2-dichloroethene	10.336	96	130760	45.87	ug/L	94
37) propionitrile	10.368	54	233237	435.68	ug/L	94
38) bromochloromethane	10.645	128	70144	48.35	ug/L	90
39) tetrahydrofuran	10.672	71	21119	45.39	ug/L #	73
40) chloroform	10.745	83	208989	47.24	ug/L	97
41) t-butyl formate	10.782	59	90921	46.16	ug/L	96
43) methacrylonitrile	10.572	67	49357	43.68	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187669.d
Acq On : 18 Nov 2021 10:30 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:18:12 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	1,1,1-trichloroethane	11.007	97	221863	47.75	ug/L		98
45)	cyclohexane	11.117	84	200538	50.04	ug/L		91
46)	1,1-dichloropropene	11.175	75	147299	51.55	ug/L		99
47)	carbon tetrachloride	11.206	117	212769	54.64	ug/L		93
51)	n-butyl alcohol	11.898	56	403924	2236.19	ug/L		100
52)	tert-amyl alcohol	11.327	55	55890	197.68	ug/L	#	83
53)	iso-octane	11.516	57	468599	66.62	ug/L		96
54)	benzene	11.427	78	461243	48.06	ug/L		100
55)	tert-amyl methyl ether	11.511	87	116656	50.09	ug/L		99
56)	heptane	11.673	57	68325	50.61	ug/L		89
57)	isopropyl acetate	11.348	87	33395	46.53	ug/L	#	81
58)	1,2-dichloroethane	11.458	62	169162	42.25	ug/L		99
59)	ethyl acrylate	12.124	55	171332	44.80	ug/L		95
60)	trichloroethene	12.134	95	139573	53.83	ug/L		92
61)	2-nitropropane	12.874	41	67909	46.38	ug/L	#	85
62)	2-chloroethyl vinyl ether	12.889	63	419105	282.38	ug/L		97
63)	methyl methacrylate	12.381	100	39814	53.24	ug/L	#	74
64)	1,2-dichloropropane	12.418	63	134277	54.16	ug/L		96
65)	dibromomethane	12.522	93	107561	55.16	ug/L		99
66)	methylcyclohexane	12.418	83	287927	55.58	ug/L		92
67)	bromodichloromethane	12.669	83	199628	56.90	ug/L		98
68)	epichlorohydrin	12.979	57	108758	272.82	ug/L		97
69)	cis-1,3-dichloropropene	13.099	75	232003	60.14	ug/L		90
70)	4-methyl-2-pentanone	13.199	58	392261	237.38	ug/L	#	83
71)	3-methyl-1-butanol	13.204	55	375689	1002.85	ug/L		94
74)	toluene	13.456	92	402228	42.36	ug/L		99
75)	ethyl methacrylate	13.613	69	219901	39.09	ug/L		94
76)	trans-1,3-dichloropropene	13.629	75	242084	41.50	ug/L		91
77)	1,1,2-trichloroethane	13.838	83	131794	40.50	ug/L		97
78)	2-hexanone	13.990	58	377438	147.97	ug/L		90
79)	tetrachloroethene	13.969	164	162450	44.95	ug/L		99
80)	1,3-dichloropropane	14.006	76	259719	42.93	ug/L		88
81)	butyl acetate	14.053	56	128989	34.85	ug/L		93
82)	dibromochloromethane	14.237	129	210617	46.54	ug/L		99
83)	1,2-dibromoethane	14.384	107	193152	45.31	ug/L		98
84)	n-butyl ether	14.772	57	695790	38.60	ug/L		95
85)	chlorobenzene	14.829	112	540943	47.67	ug/L		94
86)	1,1,1,2-tetrachloroethane	14.887	131	251474	48.16	ug/L		98
87)	ethylbenzene	14.877	91	919435	46.20	ug/L		98
88)	m,p-xylene	14.992	106	720166	97.75	ug/L		88
89)	o-xylene	15.364	106	405451	49.31	ug/L		96
90)	styrene	15.375	104	629843	47.86	ug/L		93
91)	butyl acrylate	15.196	55	365678	33.66	ug/L		95
92)	bromoform	15.595	173	207338	50.25	ug/L		100
93)	isopropylbenzene	15.689	105	1056242	48.80	ug/L		97
94)	cis-1,4-dichloro-2-butene	15.726	75	66557	30.63	ug/L	#	85
97)	bromobenzene	16.051	156	296706	57.06	ug/L		95
98)	1,1,2,2-tetrachloroethane	15.951	83	345368	55.42	ug/L		99
99)	trans-1,4-dichloro-2-b...	15.978	88	36615	34.97	ug/L	#	82
100)	1,2,3-trichloropropane	16.035	110	95056	51.18	ug/L		99
101)	n-propylbenzene	16.072	91	1213467	55.66	ug/L		96
102)	2-chlorotoluene	16.198	126	267936	59.01	ug/L		88
103)	4-chlorotoluene	16.303	91	687072	51.92	ug/L		95
104)	1,3,5-trimethylbenzene	16.214	105	919503	54.69	ug/L		97
105)	tert-butylbenzene	16.533	119	734132	55.08	ug/L		93
106)	1,2,4-trimethylbenzene	16.581	105	934325	56.62	ug/L		96
107)	sec-butylbenzene	16.738	105	1201339	57.10	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187669.d
Acq On : 18 Nov 2021 10:30 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:18:12 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration

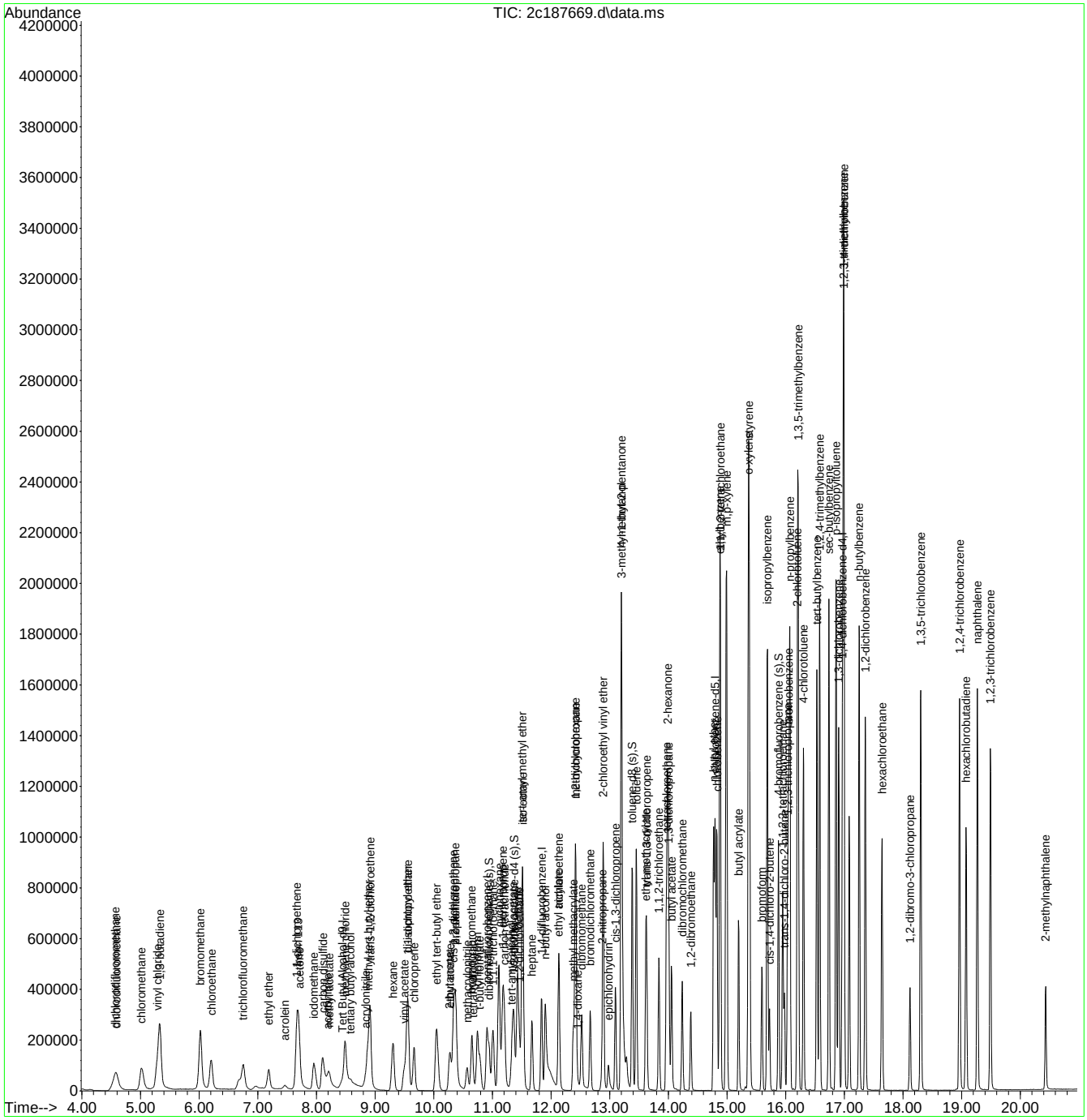
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3-dichlorobenzene	16.906	146	570593	58.87	ug/L	96
109) p-isopropyltoluene	16.858	119	1051023	57.59	ug/L	96
110) 1,2,3-trimethylbenzene	16.989	105	1033273	54.23	ug/L	95
111) 1,4-dichlorobenzene	16.995	146	602483	58.29	ug/L	96
112) 1,2-dichlorobenzene	17.356	146	599172	57.11	ug/L	97
113) n-butylbenzene	17.252	92	501934	55.12	ug/L	98
114) 1,2-dibromo-3-chloropr...	18.122	75	83788	40.97	ug/L	79
115) 1,3,5-trichlorobenzene	18.305	180	521223	57.43	ug/L	91
116) 1,2,4-trichlorobenzene	18.966	180	467973	54.36	ug/L	98
117) hexachlorobutadiene	19.076	225	217673	52.06	ug/L	99
118) naphthalene	19.270	128	1190772	49.05	ug/L	100
119) 1,2,3-trichlorobenzene	19.490	180	422719	54.71	ug/L	97
120) hexachloroethane	17.645	201	172352	47.49	ug/L	94
121) 2-methylnaphthalene	20.434	142	190782	19.18	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\voa\11-19-2021\v2c8354-partial\
Data File : 2c187669.d
Acq On : 18 Nov 2021 10:30 am
Operator : thienn
Sample : cc8274-50 Inst : GCMS2C
Misc : MS54945,V2C8354,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2C8274.M
Quant Results File: M2C8274.RES
Quant Time: Nov 19 02:18:12 2021
Quant Title : SW846 8260C/D, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Sep 27 09:47:42 2021
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standard	ABK: V021-2733-31.2	EC: V021-2733-27.7	AA: V021-2733-8.33	Ext.Chlorodifluoromethane:V021-2718-147	Column	DB-624(60mx0.25mmx1.4um)
Standard Concentration	100-10,000ppm	100ppm	100ppm	100ppm	Method	V8260D
Expiration Date	10/22/2021	9/29/2021	10/11/2021	10/1/2021	Init Calib Date	9/24/2021
Ext.	Ext.ABK: V021-2718-144.24	Ext.EC: V021-2733-29.8	Ext.Acrolein: V021-2733-21.1	Ext.PA: V021-2718-148.4		
Standard Concentration	100-10,000ppm	100ppm	100ppm	100-1,000ppm	Analysis Date	9/24/2021
Expiration Date	9/30/2021	9/29/2021	10/20/2021	10/1/2021	Sequence loaded by	Prashant B. Shukla
Internal Surrogate	V021-2733-34				Data processed by	Bridget Kelly
Internal Surrogate Concentration	250/2500ppm				Batch ID	V2C8274
Expiration Date	10/23/2021				Matrix	AQ
					Approved By:	KANYAV
pH paper Lot# (wide range):	223120	Exp. 8/15/2023	Initial Calibration Method	M2C8274	Approved Date:	9/28/2021 11:28:54 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2C	185722	BFB		NA		TUNE	5			1	ok	2:39 PM
2C	185723	IC8274-0.2		NA		ICC 8260 Water	5			2	ok	1uL Std.A/B/K,EC,AA in 500mL DI H2O
2C	185724	IC8274-0.5		NA		ICC 8260 Water	5			3	ok	1uL Std.A/B/K,EC,AA in 200mL DI H2O
2C	185725	IC8274-1		NA		ICC 8260 Water	5			4	ok	1uL Std.A/B/K,EC,AA in 100mL DI H2O
2C	185726	IC8274-2		NA		ICC 8260 Water	5			5	ok	1uL Std.A/B/K,EC,AA in 50mL DI H2O
2C	185727	IC8274-4		NA		ICC 8260 Water	5			6	ok	2uL Std.A/B/K,EC,AA in 50mL DI H2O
2C	185728	IC8274-8		NA		ICC 8260 Water	5			7	ok	4uL Std.A/B/K,EC,AA in 50mL DI H2O
2C	185729	IC8274-20		NA		ICC 8260 Water	5			8	ok	10uL Std.A/B/K,EC,AA in 50mL DI H2O
2C	185730	ICC8274-50		NA		ICC 8260 Water	5			9	ok	25uL Std.A/B/K,EC,AA in 50mL DI H2O
2C	185731	IC8274-100		NA		ICC 8260 Water	5			10	ok	50uL Std.A/B/K,EC,AA in 50mL DI H2O
2C	185732	IC8274-200		NA		ICC 8260 Water	5			11	ok	100uL Std.A/B/K,EC,AA in 50mL DI H2O

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2C	185733	IB		NA			5			12	ok	
2C	185734	IB		NA			5			13	ok	
2C	185735	ICV8274-50		NA		ICV 8260 Water	5			14	ok	25uL Ext.A/B/K,EC,Acrolein, in 50mL DI H2O
2C	185736	ICV8274-50		NA		ICV 8260 Water	5			15	ok	25uL Ext.PA,Chlorodifluoromethane in 50mL DI H2O
2C	185737	IB		NA			5			16	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standard	ABK: V021-2733-71.23	EC: V021-2733-109.5	AA: V021-2733-108.13		Column	db-624(60mx0.25mmx1.4 um)
Standard Concentration	100-10,000ppm	100ppm	100ppm		Method	V8260D
Expiration Date	11/20/2021	11/17/2021	12/9/2021		Init Calib Date	9/24/2021
Internal Surrogate	V021-2733-101					
Internal Surrogate Concentration	250/2,500ppm				Analysis Date	11/17/2021
Expiration Date	12/8/2021				Sequence loaded by	THIENN
					Data processed by	davem1
					Batch ID	V2C8352
Rough reviewed by					Matrix	AQ
					Approved By:	MEI
pH paper Lot# (wide range):	223120	Exp. 8/15/2023	Initial Calibration Method	M2C8274	Approved Date:	11/18/2021 10:57:53 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2C	187617	IB		NA			5			1	ok	
2C	187618	CC8274-50		NA			5			2	ng	ABK,EC, AA 50ul/100ml DI water
2C	187619	IB		NA			5			3	ok	
2C	187620	BFB/CC8274-50		NA			5			4	ok/ok	9.18AM. ABK,EC, AA 50ul/100ml DI water
2C	187621	CC8274-4		NA			5			5	ok	FOR # 23,26. ABK,EC, AA 4ul/100ml DI water
2C	187622	BS		NA			5			6	ok	ABK,EC, AA 50ul/100ml DI water
2C	187623	BSD		NA			5			7	ok	ABK,EC, AA 50ul/100ml DI water
2C	187624	IB		NA			5			8	ok	
2C	187625	MB		NA			5			9	ok	Dibro=0.3; 1122Tetra=0.27
2C	187626	JD34892-1	5	2.5X	MS54905	V8260RCP	20/50		1	10	ok	Dilution due to foaming.
2C	187627	JD34777-1	10	5x	MS54877	V82608010LSL	10/50		8	11	ok	Dilution due to foaming.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2C	187628	IB		NA			5			12	ok	
2C	187629	JD34862-7	2	2.5x	MS54913	V8260MASTD	20/50		1	13	ok	+2a214937
2C	187630	IB		NA			5			14	ok	
2C	187631	JD34954-3	2	NA	MS54948	V8260SL	5		1	15	ok	report #12 from l134781
2C	187632	JD34954-3	2	10x	MS54948	V8260SL	5/50		1	16	ok	
2C	187633	JD35270-6MS	1	NA	MS55061	V8260TCL42	5		1	17	ok	ABK,EC, AA 20ul/40ml sample
2C	187634	JD35270-6MSD	4	NA	MS55061	V8260TCL42	5		1	18	ok	ABK,EC, AA 20ul/40ml sample
2C	187635	IB		NA			5			19	ok	
2C	187636	JD35270-6	5	NA	MS55061	V8260TCL42	5		1	20	ok	
2C	187637	JD35270-1	2	NA	MS55061	V8260TCL42	5		1	21	ok	
2C	187638	JD35270-2	1	NA	MS55061	V8260TCL42	5		1	22	ok	
2C	187639	JD35270-3	2	NA	MS55061	V8260TCL42	5		1	23	ok	
2C	187640	JD35270-4	2	NA	MS55061	V8260TCL42	5		1	24	ok	
2C	187641	JD35270-5	2	NA	MS55061	V8260TCL42	5		1	25	ok	
2C	187642	JD35270-7	2	NA	MS55061	V8260TCL42	5		1	26	ok	
2C	187643	JD35270-8	1	NA	MS55061	V8260TCL42	5		1	27	ok	(09:02 PM)

GCMS Volatile Run Log

Standard / Reagents	Lot #					
Standard	ABK: V021-2733-71.23	EC: V021-2733-112.10	AA: V021-2733-108.13		Column	db-624(60mx0.25mmx1.4 um)
Standard Concentration	100-10,000ppm	100ppm	100ppm		Method	V8260D
Expiration Date	11/20/2021	11/18/2021	12/9/2021		Init Calib Date	9/24/2021
Internal Surrogate	V021-2733-101					
Internal Surrogate Concentration	250/2,500ppm				Analysis Date	11/18/2021
Expiration Date	12/8/2021				Sequence loaded by	THIENN
					Data processed by	kenrickb
					Batch ID	V2C8354
Rough reviewed by					Matrix	AQ
					Approved By:	KANYAV
pH paper Lot# (wide range):	223120	Exp. 8/15/2023	Initial Calibration Method	M2C8274	Approved Date:	11/24/2021 11:45:49 AM

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2C 187664	IB		NA			5			1	OK	
2C 187665	CC8274-50		NA			5			2	NG	
2C 187666	IB		NA			5			3	OK	
2C 187667	NO DATA		NA			5			4	no data	
2C 187668	IB		NA			5			1	ok	
2C 187669	BFB/CC8274-50		NA			5			2	ok/ok	10:30 am,ABK,EC, AA 50ul/100ml DI water
2C 187670	CC8274-1		NA			5			3	ok	for # 78. ABK,EC, AA 1ul/100ml DI water
2C 187671	CC8274-2		NA			5			4	ok	for # 18. ABK,EC, AA 2ul/100ml DI water
2C 187672	CC8274-4		NA			5			5	ok	for # 23. ABK,EC, AA 4ul/100ml DI water
2C 187673	BS		NA			5			6	ok	ABK,EC, AA 50ul/100ml DI water
2C 187674	IB		NA			5			7	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	IS/Surr	pH	ALS #	Status	Comments
2C	187675	MB		NA			5			8	ok	
2C	187676	JD34929-13	16	NA	MS54975	V8260TCL20	5		1	9	ok	
2C	187677	JD34929-14	16	NA	MS54975	V8260TCL20	5		1	10	ok	
2C	187678	JD34929-15	17	NA	MS54975	V8260TCL20	5		1	11	ok	bs outside in house limit but within method.
2C	187679	JD34929-16	17	NA	MS54975	V8260TCL20	5		1	12	ok	bs outside in house limit but within method.
2C	187680	JD34929-17	17	NA	MS54975	V8260TCL20	5		1	13	ok	bs outside in house limit but within method.
2C	187681	JD34929-18	16	NA	MS54975	V8260TCL20	5		1	14	ok	
2C	187682	JD34929-19	16	NA	MS54975	V8260TCL20	5		1	15	ok	bs outside in house limit but within method.
2C	187683	JD34929-20	16	NA	MS54975	V8260TCL20	5		1	16	ok	
2C	187684	JD34929-13MS	17	NA	MS54975	V8260TCL20	5		1	17	ok	ABK,EC, AA 20ul/40ml sample
2C	187685	JD34929-13MSD	18	NA	MS54975	V8260TCL20	5		1	18	ok	ABK,EC, AA 20ul/40ml sample
2C	187686	IB		NA			5			19	ok	
2C	187687	JD35270-9	1	NA	MS55061	V8260TCL42	5		1	20	ok	
2C	187688	JD34929-22	2	NA	MS54975	V8260TCL20	5		1	21	ok	
2C	187689	JD35083-5	4	NA	MS54997	V8260SL	5		1	22	OK	
2C	187690	JD35083-3	6	NA	MS54997	V8260SL	5		1	23	OK	
2C	187691	JD35217-1	1	NA	MS55051	V8260BTXM	5		1	24	OK	
2C	187692	JD35083-4	5	20x	MS54997	V8260SL	2.5/50		1	25	OK	+3b. 10.02pm
2C	187693	IB		NA			5			26	ok	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

WSP Environment & Energy

Emersub 15, LLC, Ithaca, NY

31401545.001/Task

SGS Job Number: JD39585

Sampling Date: 02/10/22

Report to:

WSP USA
7000 E. GENESEE STREET BUILDING D, 2ND FLOOR
FAYETTEVILLE, NY 13066
Amy.Romano@WSPGroup.com; Jeffrey.Baker@WSP.com;
erik.reinert@wspgroup.com
ATTN: Amy Romano

Total number of pages in report: 12

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Mike Earp
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

Sections: 1 2 3 4

Table of Contents

SGS North America Inc.

Sample Summary

WSP Environment & Energy

Job No: JD39585

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JD39585-1	02/10/22	11:15	MW	02/11/22	AQ	Water	WB SEEPS
JD39585-2	02/10/22	12:30	MW	02/11/22	AQ	Water	RW SEEP

Summary of Hits

Job Number: JD39585
Account: WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Collected: 02/10/22

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JD39585-1	**WB SEEPS**					
Barium		63.0 J	200	17	ug/l	EPA 200.7
Lead		3.4	3.0	2.4	ug/l	EPA 200.7
JD39585-2	**RW SEEP**					
Barium		27.5 J	200	17	ug/l	EPA 200.7

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WB SEEPS		
Lab Sample ID:	JD39585-1	**Date Sampled:**	02/10/22
Matrix:	AQ - Water	**Date Received:**	02/11/22
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	63.0 J	200	17	ug/l	1	02/15/22	02/16/22	ND	EPA 200.7 [1]	EPA 200.7 [2]
Lead	3.4	3.0	2.4	ug/l	1	02/15/22	02/16/22	ND	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA51921
(2) Prep QC Batch: MP31283

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	RW SEEP		
Lab Sample ID:	JD39585-2	**Date Sampled:**	02/10/22
Matrix:	AQ - Water	**Date Received:**	02/11/22
		Percent Solids:	n/a
Project:	Emersub 15, LLC, Ithaca, NY		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	27.5 J	200	17	ug/l	1	02/15/22	02/16/22	ND	EPA 200.7 [1]	EPA 200.7 [2]
Lead	2.4 U	3.0	2.4	ug/l	1	02/15/22	02/16/22	ND	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA51921
(2) Prep QC Batch: MP31283

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
J = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

WSP

D#: TS-011422-123

Chain of Custody Form

Page 1 of 1

WSP Office Address		Requested Analyses & Preservatives	No. JD39585
7000 East Genesee Street, Building D, 2nd Floor			
Project Name Emersub 15, LLC	**WSP Contact Name** Nathaniel Winston		**Laboratory Name & Location** SGS, NJ
Project Location Ithaca, NY	**WSP Contact E-mail** AMY.ROMANO @wsp.com		**Laboratory Project Manager** TAMMY McCloskey
Project Number & Task 31401545.001/Task	**WSP Contact Phone** 315-420-9973		**Requested Turn-Around-Time** ☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ___ HR
Sampler(s) Name(s) Nathaniel Winston	**Sampler(s) Signature(s)**		

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	BARIUM, LEAD	Sample Comments
1 WB SEEPS	AQ	—		2/10/22	1115	1	X	A32
2 RW SEEP	AQ	—		2/10/22	1230	1	X	

WSP USA
Emersub 15, LLC, Ithaca, NY

TS-011422-123

Please place on the back of original (white copy of COC)
This will assist us in processing your samples.
Thank You

Initial Assessment PBOK

Label Verification ____

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
	2/10/22	1600	FedEx			FedEx	5272 0638 1017
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
FEDEX	2/11/22	10:15				1	19274

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

3.9°

JD39585: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JD39585 **Client:** EMERSUB 15, LLC **Project:** ITHACA, NY

Date / Time Received: 2/11/2022 10:15:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.9);

Cooler Temps (Corrected) °C: Cooler 1: (2.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD39585: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

WSP Environment & Energy

Job No: JD39585

Emersub 15, LLC, Ithaca, NY
Project No: 31401545.001/Task

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD39585-1 WB SEEPS	Collected: 10-FEB-22 11:15 By: MW		Received: 11-FEB-22 By: TS			
JD39585-1	EPA 200.7	16-FEB-22 13:01	ND	15-FEB-22	SF	BA,PB
JD39585-2 RW SEEP	Collected: 10-FEB-22 12:30 By: MW		Received: 11-FEB-22 By: TS			
JD39585-2	EPA 200.7	16-FEB-22 13:05	ND	15-FEB-22	SF	BA,PB

SGS Internal Chain of Custody

Job Number: JD39585
Account: WSPENYC WSP Environment & Energy
Project: Emersub 15, LLC, Ithaca, NY
Received: 02/11/22

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD39585-1.1	Christian King	Secured Storage	02/11/22 19:41	Return to Storage
JD39585-1.1	Secured Storage	Alyssa Koshy	02/15/22 09:46	Retrieve from Storage
JD39585-1.1	Alyssa Koshy	Secured Storage	02/15/22 14:06	Return to Storage
JD39585-1.1.1	Alyssa Koshy	Metals Digestion	02/15/22 11:54	Digestate from JD39585-1.1
JD39585-1.1.1	Metals Digestion	Alyssa Koshy	02/15/22 11:54	Digestate from JD39585-1.1
JD39585-1.1.1	Alyssa Koshy	Metals Digestate Storage	02/15/22 11:54	Return to Storage
JD39585-2.1	Christian King	Secured Storage	02/11/22 19:41	Return to Storage
JD39585-2.1	Christian King	Secured Staging Area	02/14/22 22:02	Return to Storage
stage				
JD39585-2.1	Secured Staging Area	Alyssa Koshy	02/15/22 08:55	Retrieve from Storage
JD39585-2.1	Alyssa Koshy	Secured Storage	02/15/22 14:06	Return to Storage
JD39585-2.1.1	Alyssa Koshy	Metals Digestion	02/15/22 11:54	Digestate from JD39585-2.1
JD39585-2.1.1	Metals Digestion	Alyssa Koshy	02/15/22 11:54	Digestate from JD39585-2.1
JD39585-2.1.1	Alyssa Koshy	Metals Digestate Storage	02/15/22 11:54	Return to Storage

Alloway
Your Resource for Defensible Data

WSP
Attn: Amy Romano
7000 East Genesee St BD.D 2nd Floor
Fayetteville, NY 13066

February 22, 2022

Enclosed is the analytical report prepared by Alloway Marion for the following samples that were received on 2/11/2022

WB SEEPS	Laboratory assigned ID:	M22-13444-01
RW SEEP	Laboratory assigned ID:	M22-13444-02

All analyses were performed by the methods documented in the analytical report and the samples were analyzed by EPA approved methods.

I have personally examined and am familiar with the information submitted in this document and based on my inquiry of those individuals immediately responsible for obtaining information; I believe the submitted information is true, accurate and complete.

Should you have any questions regarding the analytical report please feel free to contact me. Thank you for using Alloway.

I appreciate your business.

Sincerely,

Rhonda L. Morris

Rhonda Morris

Laboratory Manager

CERTIFICATE OF ANALYSIS

Reported by Alloway - Marion

PA State Lab ID: 68-00370
NY State Lab ID: 11071
Chain of Custody attached

WSP
Attn: Amy Romano
7000 East Genesee St BD.D 2nd Floor
Fayetteville, NY 13066

Lab Project #	M22-13444
Received:	2/11/2022
Reported:	2/22/2022
Date/Time Sampled:	02/10/2022 11:15
Sampled By:	Unknown
Sampled Matrix:	Water
Containers:	1

Project Name: **Emersubis, LLC**

Sample ID: **WB SEEPS**

Lab Sample # **M22-13444-01**

Analyte	Results	Units	PQL	Preparation Method	Analytical Method	Analyst	Extraction Date	Analysis Date/Time
Cyanide, Free (pH 6)	<0.003	mg/L	0.003		ASTM-D7237-10	DLQ		02/17/2022 11:36

Analysis Certified By: Rhonda C. Morris

Rhonda C Morris

Alloway
Your Resource for Defensible Data

CERTIFICATE OF ANALYSIS
Reported by Alloway - Marion
PA State Lab ID: 68-00370
NY State Lab ID: 11071
Chain of Custody attached

WSP
Attn: Amy Romano
7000 East Genesee St BD.D 2nd Floor
Fayetteville, NY 13066

Lab Project #	M22-13444
Received:	2/11/2022
Reported:	2/22/2022
Date/Time Sampled:	02/10/2022 12:30
Sampled By:	Unknown
Sampled Matrix:	Water
Containers:	1

Project Name: **Emersubis, LLC**

Sample ID: **RW SEEP**
Lab Sample # **M22-13444-02**

Analyte	Results	Units	PQL	Preparation Method	Analytical Method	Analyst	Extraction Date	Analysis Date/Time
Cyanide, Free (pH 6)	<0.003	mg/L	0.003		ASTM-D7237-10	DLQ		02/17/2022 11:36

Analysis Certified By: Rhonda C. Morris
Rhonda C Morris

Cyanide QC in mg/L
02/17/2022

QC	Result in mg/L		True Value	Recovery	% RSD	Acceptance Range	Acceptance Range
ICV	0.13389		0.138	97.0		90 - 110	
ICB	-0.00056					<0.003	
RDLCHK	0.0030686		0.002928	104.8		50 - 150	
LCS1	0.13708		0.1464	93.6		90 - 110	
LCS2	0.1832		0.1952	93.9		90 - 110	
Sample 1	0.00049548						
Sample 1 MS	0.19097		0.1952	97.8		90 - 110	
Sample 1 MSD	0.18954		0.1952	96.8	0.8	90 - 110	<20%
CCV1	0.12829		0.138	93.0		90 - 110	
CCB1	-0.00031					<0.003	
CCV2	0.13587		0.138	98.5		90 - 110	
CCB2	-0.0002857					<0.003	

BATCH 101746

Author: DANA QUEEN LACHAT SERIAL #101000001274 Date : 2/17/2022

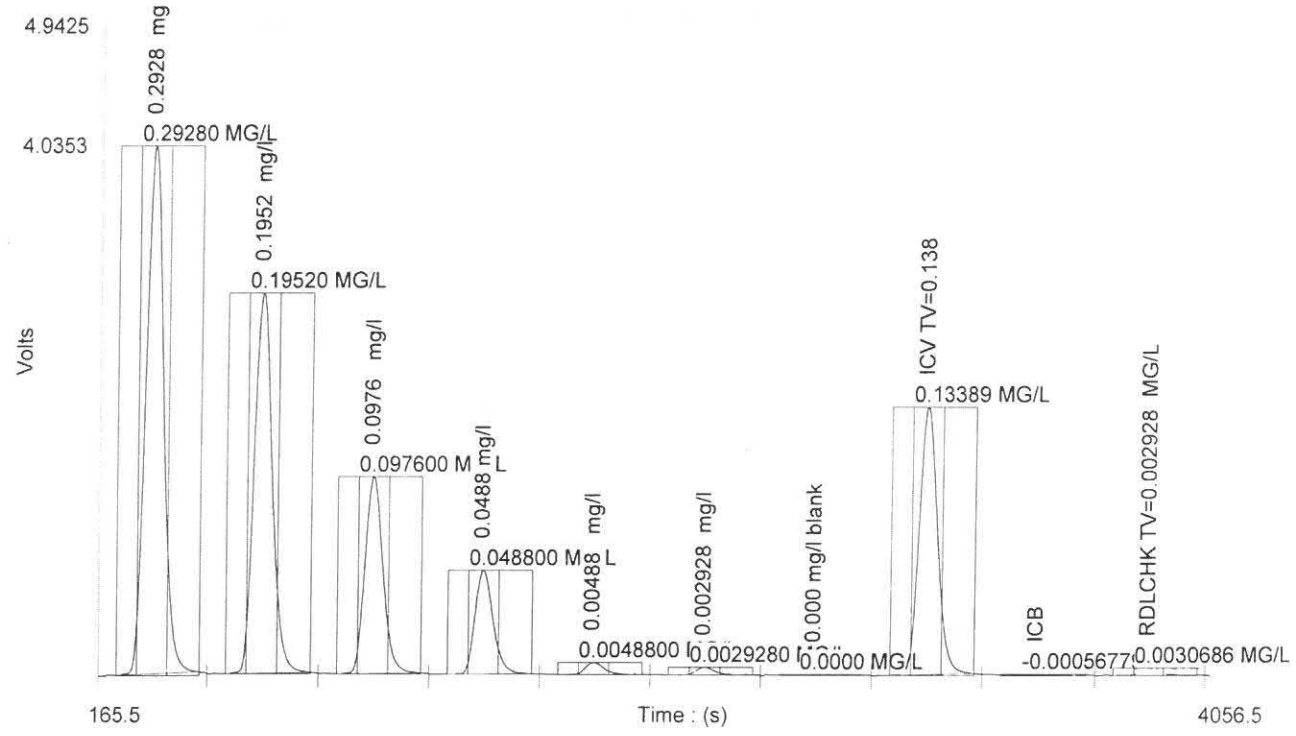
Original Run Filename: OM_2-17-2022_11-33-48AM.OMN Created: 2/17/2022 11:33:48 AM
Original Run Author's Signature: [AllowayM]
Current Run Filename: 2022CNFDQ0217A.omn Last Modified: 2/17/2022 2:29:34 PM
Current Run Author's Signature: [AllowayM]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 Free Cyanide Conc. (MG/L)	Channel 2 Free Cyanide Area (V.s)	Detection Time	Description	
0.2928 mg/l	1	S1	0.29280	265.35	2/17/2022@11:36:56 AM		
0.1952 mg/l	1	S2	0.19520	192.41	2/17/2022@11:43:24 AM		
0.0976 mg/l	1	S3	0.097600	100.30	2/17/2022@11:49:52 AM		
0.0488 mg/l	1	S4	0.048800	52.846	2/17/2022@11:56:20 AM		
0.00488 mg/l	1	S5	0.0048800	6.0930	2/17/2022@12:02:49 PM		
0.002928 mg/l	1	S6	0.0029280	3.8311	2/17/2022@12:09:16 PM		
0.000 mg/l blank	1	S7	0.0000	-0.15099	2/17/2022@12:15:43 PM		
ICV TV=0.138	1	1	0.13389	135.86	2/17/2022@12:22:12 PM		97%
	Known Conc:		0.13800				
	Calibration:		Table/Fig. : 1				
ICB	1	2	-0.00056779	-0.42140	2/17/2022@12:28:41 PM		
RDLCHK TV=0.002928 MG/L	1	3	0.0030686	3.7348	2/17/2022@12:35:09 PM		104.8%
LCSA1 TV=0.1464	1	4	0.13708	138.74	2/17/2022@12:41:38 PM		93.6%
	Known Conc:		0.14640				
LCSA2 TV=0.1952 MG/L	1	5	0.18320	179.17	2/17/2022@12:48:06 PM		93.9%
	Known Conc:		0.19520				
[redacted] 5X DIL	1	6	-0.00019592	0.0051593	2/17/2022@12:54:34 PM		
[redacted]	1	7	0.00048754	0.78822	2/17/2022@1:01:02 PM		
[redacted]	1	8	0.00049548	0.79730	2/17/2022@1:07:30 PM		
[redacted] MS TV=0.1952	1	9	0.19097	185.75	2/17/2022@1:13:58 PM		97.8%
[redacted] MSD TV=0.1952	1	10	0.18954	184.54	2/17/2022@1:20:26 PM		96.8% RPD=0.8%
[redacted]	1	11	0.00030658	0.58100	2/17/2022@1:26:54 PM		
[redacted]	1	12	0.00030594	0.58026	2/17/2022@1:33:21 PM		
13444-01	1	13	1.9811e-5	0.25246	2/17/2022@1:39:49 PM		
13444-02	1	14	0.00033001	0.60783	2/17/2022@1:46:16 PM		
CCV1 TV=0.138	1	15	0.12829	130.75	2/17/2022@1:52:43 PM		93%
	Known Conc:		0.13800				
CCB1	1	16	-0.00030630	-0.12141	2/17/2022@1:59:12 PM		
[redacted]	1	17	0.00025300	0.51963	2/17/2022@2:05:41 PM		
CCV2 TV=0.138	1	18	0.13587	137.65	2/17/2022@2:12:09 PM		98%
CCB2	1	19	-0.00028571	-0.097802	2/17/2022@2:18:38 PM		

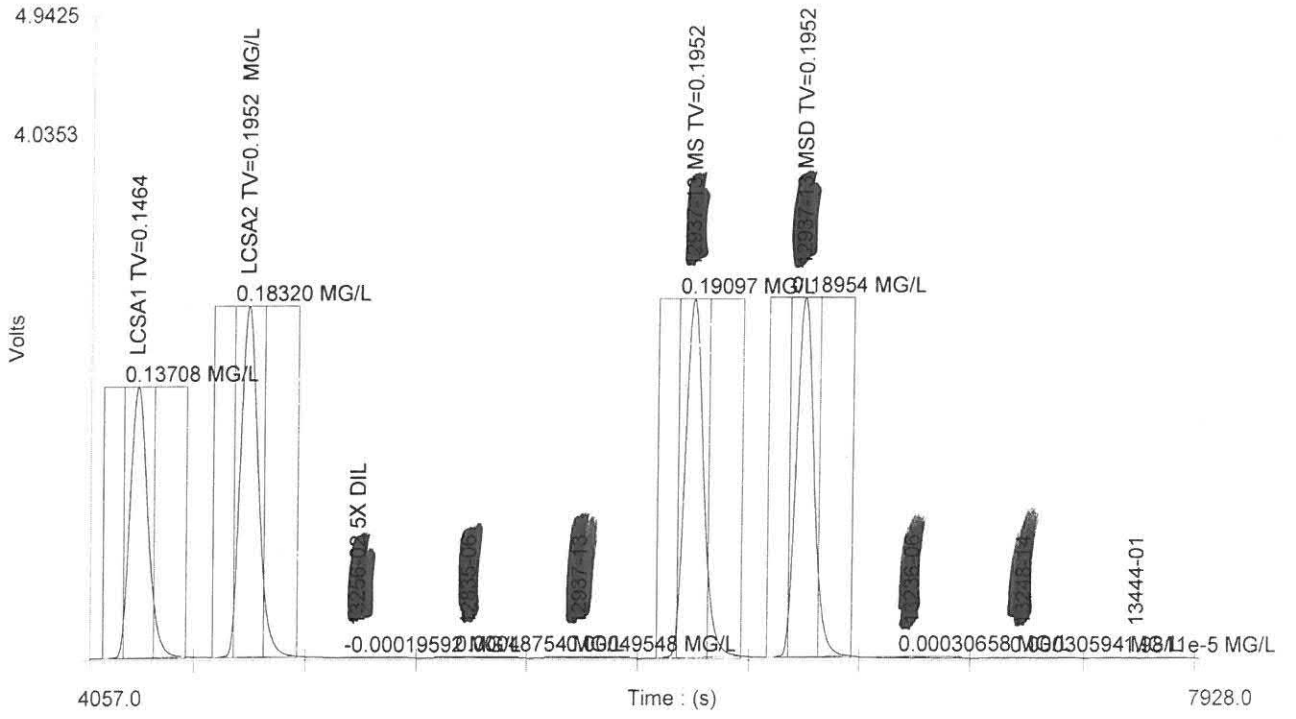
Analyte Properties Table for : 2022CNFDQ0217A.omn

Property	Channel 2 Free Cyanide
Concentration Units	MG/L
Calibration Fit Type	Second Order
Clear Calibration	Yes
Force through Zero	No
Calibration Weighting	1/x
Auto Dilution Trigger	No
% of High Standard	110
Quik Chem Method	10-204-00-5-C
Chemistry	Brackish
Calibration by Height	No
Inject to Peak Start	64
Peak Base Width	295

Channel 2 (Free CN) - Set: 1 / 3



Channel 2 (Free CN) - Set: 2 / 3



Channel 2 (Free CN) - Set: 3 / 3

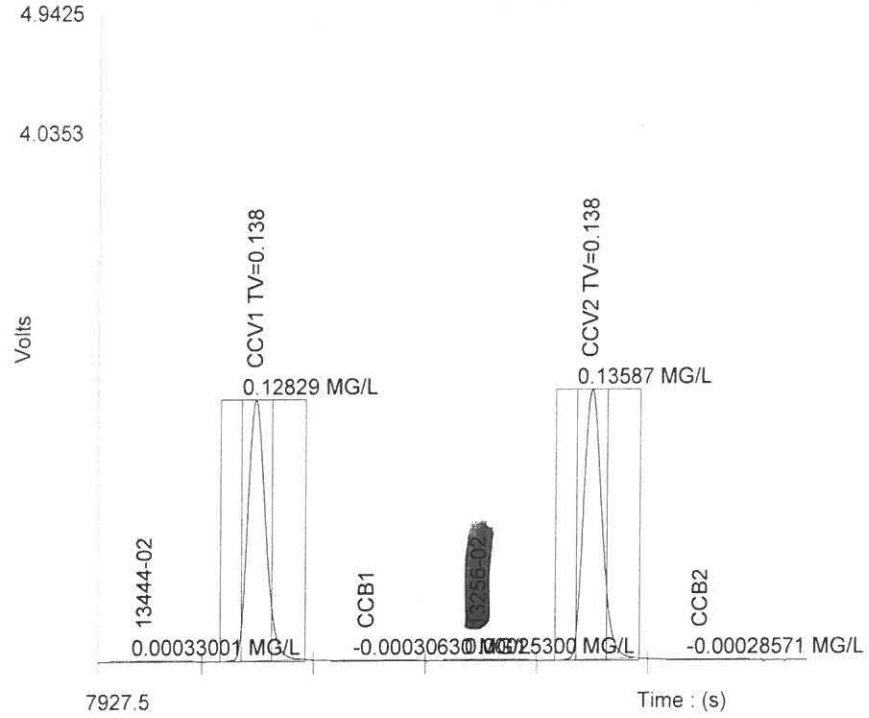
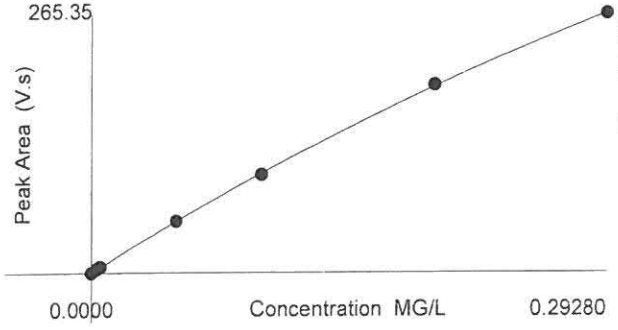


Table : 1 (Free Cyanide)

	Known Conc. (MG/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (MG/L)	Detection Date	Detection Time
1	0.29280	1	265.35	4.0165	0.0	0.2	0.29076	2/17/2022	11:36:56 AM
2	0.19520	1	192.41	2.8970	0.0	-0.9	0.19892	2/17/2022	11:43:24 AM
3	0.097600	1	100.30	1.5024	0.0	1.8	0.095784	2/17/2022	11:49:52 AM
4	0.048800	1	52.846	0.79030	0.0	0.0	0.048250	2/17/2022	11:56:20 AM
5	0.0048800	1	6.0930	0.090955	0.0	-6.6	0.0051449	2/17/2022	12:02:49 PM
6	0.0029280	1	3.8311	0.057650	0.0	-7.7	0.0031532	2/17/2022	12:09:16 PM
7	0.0000	1	-0.15099	-0.0026181			-0.0003320 9	2/17/2022	12:15:43 PM

Figure : 1 (Free Cyanide)



Area = - 696.06 * Conc^2 + 1111.0 * Conc + 0.31187
Conc = 8.4557e-7 * Area^2 + 0.00087214 * Area - 0.00020042
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

Cyanide Free Reagent Tracking Sheet
ASTM Method D7237-10

CALIBRATION STANDARDS

	Reagent/Solution #
1000 mg/L Calibration Std	R-32160
100 mg/L	S115650
10 mg/L	S115651
0.3 mg/L Calibration Std	S115838
0.2 mg/L Calibration Std	S115839
0.10 mg/L Calibration Std	S115840
0.05 mg/L Calibration Std	S115841
0.005 mg/L Calibration Std	S115842
0.003 mg/L Calibration Std	S115843

SECOND SOURCE STANDARD

	Reagent/Solution #
1000 mg/L ICV/CCV Stock Standard	R-32385
100 mg/L	S115652
0.15 mg/L ICV/CCV Standard	S115844

Reagent	Reagent / Solution Number	
1 M Sodium Hydroxide (NaOH)	S113277	
0.1 M Sodium Hydroxide (NaOH)	S115654	
0.025 M Sodium Hydroxide (NaOH)	~~S115003~~	S115836
Buffer Solution A	~~S115642~~	S115003
Buffer Solution B	S115642	
0.2 M Phosphate Buffer - 6.0 pH	S115837	
pH paper		
Lead Carbonate	R-31332	

Form 7237_2 - 0

Alloway
Cyanide Free Sample Preparation Sheet

Date: 2/17/22

Analyst: [redacted]

	Lab #	Sulfide Check (+ or -)	Comments
1	[redacted] 5x	-	
2	[redacted]	-	
3	[redacted]	-	
4	[redacted] MS	-	
5	[redacted] MSD	-	
6	[redacted]	-	
7	[redacted]	-	
8	13444-01	-	
9	13444-02	-	
10			
11			
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30			

February 25, 2022 Service Request No:R2201236

Amy Romano
WSP USA
5 Sullivan Street
Cazenovia, NY 13035

Laboratory Results for: Emersobis, LLC

Dear Amy,

Enclosed are the results of the sample(s) submitted to our laboratory February 11, 2022
For your reference, these analyses have been assigned our service request number **R2201236.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: WSP Global
Project: Emersobis, LLC
Sample Matrix: Water

Service Request: R2201236
Date Received: 02/11/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 02/11/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 02/25/2022

SAMPLE DETECTION SUMMARY

CLIENT ID: WB Seeps			Lab ID: R2201236-001			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Mercury, Total	3.1			1.0	ng/L	1631E

CLIENT ID: RW Seeps			Lab ID: R2201236-002			
Analyte	**Results**	**Flag**	**MDL**	**MRL**	**Units**	**Method**
Mercury, Total	2.3			1.0	ng/L	1631E

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: WSP Global **Service Request:**R2201236
Project: Emersobis, LLC/31401545.001

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R2201236-001	WB Seeps	2/10/2022	1115
R2201236-002	RW Seeps	2/10/2022	1230
R2201236-003	Field Blank	2/10/2022	1300

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 062480

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE _____ OF _____

Project Name: EMERSOBIS, LLC	Project Number: 31401545.001
Project Manager: AMY ROMANO	Report CC:
Company/Address:	
Phone #: 315-655-3900	Email: AMY.ROMANO@WSP.COM
Sampler's Signature:	Sampler's Printed Name: NATE WINSTEN

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

NUMBER OF CONTAINERS

GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP | GC/MS SVOAs ◦ 8270 ◦ 625 | GC VOAs ◦ 8021 ◦ 601/602 | PESTICIDES ◦ 8081 ◦ 608 | PCBs ◦ 8082 ◦ 608 | METALS, TOTAL (List in comments below) | METALS, DISSOLVED (List in comments below) | LL Hg

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	#	LL Hg	REMARKS/ ALTERNATE DESCRIPTION
WB SEEPS		2/10/22	1115	AQ	1	X	
RW SEEP		2/10/22	1230	AQ	1	X	
FIELD BLANK		2/10/22	1300	AQ	1	X	

SPECIAL INSTRUCTIONS/COMMENTS
Metals LOW LEVEL MERCURY

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED NY

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
X Standard (10 business days-No Surcharge)
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: NATE WINSTEN	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name:	Printed Name: Matthew Madey	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: WSP	Firm: ALS	Firm:	Firm:	Firm:	Firm:
Date/Time: 2/10/22 1600	Date/Time: 2/11/22 1011	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R2201236 5
Ecology And Environment, Incorporated
Emersobis, LLC

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check For

Project/Client WSP Folder Number

Cooler received on 2/11/22 by: MM

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (**Wet Ice**) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 2/11/22 Time: 10:50 ID: IR#7 (IR#11) From: Temp Blank (Sample Bottle)

Observed Temp (°C)	4.5						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Floor by MM on 2/11/22 at 10:55
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 2/11/22 Time: 12:40 by: RC

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
13. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO_3								
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**	4219100					

Bottle lot numbers: L140-002

Explain all Discrepancies/ Other Comments:

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: ME

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations[1]

NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client:	WSP Global	**Service Request:**	R2201236
Project:	Emersobis, LLC/31401545.001		

Sample Name:	WB Seeps	**Date Collected:**	02/10/22
Lab Code:	R2201236-001	**Date Received:**	02/11/22
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
1631E		KMCLAEN

Sample Name:	RW Seeps	**Date Collected:**	02/10/22
Lab Code:	R2201236-002	**Date Received:**	02/11/22
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
1631E		KMCLAEN

Sample Name:	Field Blank	**Date Collected:**	02/10/22
Lab Code:	R2201236-003	**Date Received:**	02/11/22
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
1631E		KMCLAEN

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

Sample Results

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www.alsglobal.com

Metals

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www.alsglobal.com

Client:	WSP Global	**Service Request:**	R2201236
Project:	Emersobis, LLC/31401545.001	**Date Collected:**	02/10/22 11:15
Sample Matrix:	Water	**Date Received:**	02/11/22 10:15
Sample Name:	WB Seeps	**Basis:**	NA
Lab Code:	R2201236-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Mercury, Total	1631E	**3.1**	ng/L	1.0	1	02/24/22 13:18	

Client:	WSP Global	**Service Request:**	R2201236
Project:	Emersobis, LLC/31401545.001	**Date Collected:**	02/10/22 12:30
Sample Matrix:	Water	**Date Received:**	02/11/22 10:15
Sample Name:	RW Seeps	**Basis:**	NA
Lab Code:	R2201236-002		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Mercury, Total	1631E	**2.3**	ng/L	1.0	1	02/24/22 13:26	

Analytical Report

Client:	WSP Global	**Service Request:**	R2201236
Project:	Emersobis, LLC/31401545.001	**Date Collected:**	02/10/22 13:00
Sample Matrix:	Water	**Date Received:**	02/11/22 10:15
Sample Name:	Field Blank	**Basis:**	NA
Lab Code:	R2201236-003		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Mercury, Total	1631E	1.0 U	ng/L	1.0	1	02/24/22 13:34	

QC Summary Forms

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Metals

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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	WSP Global	**Service Request:**	R2201236
Project:	Emersobis, LLC/31401545.001	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R2201236-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Mercury, Total	1631E	1.0 U	ng/L	1.0	1	02/24/22 12:38	

Client: WSP Global
Project: Emersobis, LLC/31401545.001
Sample Matrix: Water

Service Request: R2201236
Date Analyzed: 02/24/22

Lab Control Sample Summary
Inorganic Parameters

Units:ng/L
Basis:NA

Lab Control Sample
R2201236-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Mercury, Total	1631E	5.05	5.0	101	77-128

Data Usability Summary Report	Project: Former EPT Ithaca
Date Completed: March 25, 2022	Completed by: Tunde Komuves-Sandor

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- EPA Region 2 Data Validation SOP No. HW-34A, Revision 1
- EPA CLP National Functional Guidelines for Organic Data Review (EPA 2014a)

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Project ID	Lab Work Order	Laboratory Report
31401545.001.05	JD27695 JD29301	SGS North America Inc.

Table 1 Sample Listing Summary

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Field QC	ID Correct-ions
JD27695	WG	BD24 SEEP 070121	JD27695-1	07/01/2021 09:40		
JD27695	WG	BD 070121	JD27695-2	07/01/2021 09:00	FD	
JD27695	WG	OPEN DITCH 001 070121	JD27695-3	07/01/2021 10:00		
JD27695	WG	BYPASS 070121	JD27695-4	07/01/2021 10:25		
JD27695	WG	WB SEEPS 070121	JD27695-5	07/01/2021 10:40		
JD27695	WG	OUTFALL 001 010121	JD27695-6	07/01/2021 11:00		
JD27695	WG	WOODEN SLUICE 070121	JD27695-7	07/01/2021 11:25		
JD27695	WG	BW SEEP 070121	JD27695-8	07/01/2021 12:00		
JD27695	WQ	BW SEEP 070121-MSD	JD27695-8D	07/01/2021 12:00	MSD	
JD27695	WQ	BW SEEP 070121-MS	JD27695-8S	07/01/2021 12:00	MS	
JD27695	WQ	EB-070121	JD27695-9	07/01/2021 13:00	EB	
JD27695	WQ	TRIP BLANK	JD27695-10	07/01/2021 13:00	TB	
JD29301	WG	BD24SEEP080221	JD29301-1	08/02/2021 13:25		
JD29301	WG	BD080221	JD29301-2	08/02/2021 11:00	FD	
JD29301	WG	OPEN DITCH 001 080221	JD29301-3	08/02/2021 13:55		
JD29301	WG	BYPASS 080221	JD29301-4	08/02/2021 14:15		
JD29301	WG	WB SEEPS 080221	JD29301-5	08/02/2021 14:35		
JD29301	WG	OUTFALL 001 080221	JD29301-6	08/03/2021 14:55		
JD29301	WG	WOODEN SLUICE 080221	JD29301-7	08/02/2021 15:10		
JD29301	WG	RW SEEP 080221	JD29301-8	08/02/2021 15:45		
JD29301	WQ	RW SEEP 080221-MSD	JD29301-8D	08/02/2021 15:45	MSD	
JD29301	WQ	RW SEEP 080221-MS	JD29301-8S	08/02/2021 15:45	MS	
JD29301	WQ	EQ BLANK	JD29301-9	08/02/2021 16:30	EB	
JD29301	WQ	TRIP BLANK	JD29301-10	08/02/2021 16:30	TB	

Table 1A Sample Test Summary

Work Orders	Matrix	Test Method	Method Name	Number of Samples	Sample Type
JD27227	WG	SW8260D	Volatile Organic Compounds by GC/MS	16	N
JD27227	WG	SW8260D	Volatile Organic Compounds by GC/MS	2	FD
JD27227	WQ	SW8260D	Volatile Organic Compounds by GC/MS	2	TB

Data Usability Summary Report	Project: Former EPT Ithaca
Date Completed: March 25, 2022	Completed by: Tunde Komuves-Sandor

Work Orders	Matrix	Test Method	Method Name	Number of Samples	Sample Type
JD27227	WQ	SW8260D	Volatile Organic Compounds by GC/MS	2	RB
JD27227	WQ	SW8260D	Volatile Organic Compounds by GC/MS	2	MS/MSD

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes.
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs Equipment Blank - 1/20 samples	The frequency of field QC will be evaluated at the end of project. 2 FD per 16 samples. 2 MS/MSD per 16 samples. 2 trip blanks: 1 per VOC cooler. 2 Field blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2)
- Surrogates Outside Limits (Table 3)
- MS/MSD Outside Limits (Table 4)
- LCS and ICV/CCV Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to Tables List

Data Usability Summary Report	Project: Former EPT Ithaca
Date Completed: March 25, 2022	Completed by: Tunde Komuves-Sandor

Volatile Organic Compounds by GC/MS – Method 8260C	
Description	**Notes and Qualifiers**
Any compounds present in method, trip, or field blanks (see Table 2)?	Yes.
For samples, if results are < 5 times the blank or < 10 times the blank for common laboratory contaminants, then "U" flag data. Qualification also applies to TICs.	Not applicable.
Are surrogates for method blanks and LCS within limits?	Yes.
Are surrogates for samples and MS/MSD within limits? (See Table 3). If not, were all samples reanalyzed for VOCs? Matrix effects should be established.	Yes.
Is Laboratory QC frequency at least one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Is MS/MSD within QC criteria (see Table 4)? If out and LCS is compliant, then “J” flag positive data in original sample due to matrix.	Yes.
Is LCS within QC criteria (see Table 5)? If out, and the recovery is high with no positive values, then no data qualification is required.	Yes.
Do internal standards areas and retention time meet criteria? If not was sample re-analyzed to establish matrix (see Table 6)?	Yes.
Is initial calibration for target compounds <20 %RSD or curve fit?	Yes.
Is %D in the continuing calibration for target compounds less than method specifications?	No.
Were any samples reanalyzed or diluted (see Table 6)? For any sample reanalysis or dilutions, is only one reportable result flagged?	No.
For TICs are there any system related compounds that should not be reported?	Not applicable.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Summary of Findings
• 2 samples were qualified due to field blank contamination.

Data Usability Summary Report	Project: Former EPT Ithaca
Date Completed: March 25, 2022	Completed by: Tunde Komuves-Sandor

Table 2 - List of Positive Results for Blank Samples

Method	Sample Name	Sample Type	Analyte	Result	Qualifier	Units	MDL	PQL
SW8260D	EB-070121 (JD27695-9)	RB	Chloroform	0.66	J	ug/l	0.5	1.0
SW8260D	EQ BLANK	RB	Acetone	5.1	J	ug/l	3.1	10

Table 2A - List of Samples Qualified for Method Blank Contamination

None.

Table 2B - List of Samples Qualified for Field Blank Contamination

Method	Field Blank	Matrix	Analyte	Result	Lab Qual	Blank Result	Units	MDL	PQL	Sample Name	Sample Flag
SW8260D	EB-070121 (JD27695-9)	Water	Chloroform	0.88	J	0.66	ug/l	0.5	1.0	OPEN DITCH 001 070221 (JD27695-3)	U
SW8260D	EB-070121 (JD27695-9)	Water	Chloroform	0.59	J	0.66	ug/l	0.5	1.0	WB SEEPS 070121 (JD27695-5)	U

Table 3 - List of Samples with Surrogates outside Control Limits

None.

Table 4A – List of MS/MSD Recoveries outside Control Limits

None.

Table 4B – List of MS/MSD RPDs outside Control Limits

None.

Table 5A - List of LCS Recoveries outside Control Limits

None.

Table 5B – List of ICV/CCV Recoveries outside Control Limits

None.

Table 6 –Samples that were Re-analyzed

None.

Data Usability Summary Report	Project: Former EPT Ithaca
Date Completed: March 25, 2022	Completed by: Tunde Komuves-Sandor

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	Anal Type	BD24 SEEP 070121	BD 070121	RPD	RPD Rating	Sample Qual
SW8260	cis-1,2-Dichloroethene	ug/l	WG	0.51	A	2.4	2.8	15.4%	Good	None
SW8260	Trichloroethene	ug/l	WG	0.51	A	17.5	17.9	2.3%	Good	None

Method	Analyte	Unit	Matrix	PQL	Anal Type	BD24SEEP080221	BD080221	RPD	RPD Rating	Sample Qual
SW8260	cis-1,2-Dichloroethene	ug/l	WG	0.51	A	1.9	1.9	0.0%	Good	None
SW8260	Trichloroethene	ug/l	WG	0.53	A	9.4	9.3	1.1%	Good	None

Acronym List and Table Key:

CCV	=	continuing calibration verification
COC	=	chain of custody
DUSR	=	data usability summary report
FD	=	field duplicate
GC/MS	=	gas chromatography / mass spectrometry
ICB	=	initial calibration blank
ICS	=	interference check standard
ICV	=	initial calibration verification
LCS	=	laboratory control sample
LR	=	lab replicate
MB	=	method blank
MDL	=	method detection limit
µg/L	=	micrograms per liter
MS	=	matrix spike
MSD	=	matrix spike duplicate
ng/L	=	nanograms per liter
N	=	normal (field) sample
ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RB	=	equipment rinse blank
RPD	=	relative percent difference
SDG	=	sample delivery group
TB	=	trip blank
TRG	=	target compound
%D	=	percent difference
%RSD	=	percent relative standard deviation

APPENDIX

B PERMIT EQUIVALENT

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233
www.dec.ny.gov

Emerson Electric Co.

Project Site Remediation
Wastewater Discharge SPDES Permit Equivalent

DRAINAGE BASIN: **07 / 05**

DER Site No: 7-55-010
Effective Date: **August 1, 2022**
Expiration Date: **July 31, 2027**

Discharger Name and Address:

Emerson Electric Co.
ATTN: Steve Clarke
8000 W. Florissant Ave, Station 1963
(314) 553 1953
Contact Email Address: steve.clarke@emerson.com

is authorized to discharge from the facility described below:

Emerson Electric Co.
620 South Aurora St.
Ithaca, NY 14850

From the following outfall(s):

Outfall No.	Outfall Description	Location	Receiving Water	WIN *	Class
01A	Treated Remediation Wastewater	42°25'57.18"N 76°29'53.95"W	Tributary of Cayuga Lake	0-66-12-P296-75-6	C
001	Stormwater, Ground water seepage and treated remedial wastewater	42°25'56.03"N 76°29'54.85"W	Tributary of Cayuga Lake	0-66-12-P296-75-6	C
009	Stormwater and Groundwater Seepage	42°25'51.67"N 76°29'59.86"W	Tributary of Cayuga Lake	0-66-12-P296-75-6	C
011	Groundwater seepage	42°25'56.46"N 76°29'55.25"W	Tributary of Cayuga Lake	0-66-12-P296-75-6	C

* Water Index Number

The discharges from the treatment facility shall be limited and monitored by the operator as specified below:

Outfall No. and Parameter	CAS No.	Discharge Limitations		Units	Minimum Monitoring Requirements		FN
		Monthly Avg.	Daily Max		Measurement Frequency	Sample Type	
Outfall 01A - Treated Remediation Discharge							
Flow		Monitor	Monitor	GPD	Monthly	Totalizer	
pH (range)	NA	6.5 – 8.5		SU	Monthly	Grab	
Temperature	NA		Monitor	°F	Monthly	Grab	
Tetrachloroethylene	00127-18-4		0.001	mg/l	Monthly	Grab	
Trichloroethylene	-		0.01	mg/l	Monthly	Grab	
Sum of Dichlorobenzenes	-		0.01	mg/l	Monthly	Grab	
Bromoform	00075-25-2		0.01	mg/l	Monthly	Grab	
Chlorobenzene	00108-90-7		0.005	mg/l	Monthly	Grab	
Chlorodibromomethane	00124-48-1		0.01	mg/l	Monthly	Grab	
Chloroform	00067-66-3		0.01	mg/l	Monthly	Grab	
Cyanide, Free	-	5.2	22	ug/l	Monthly	Grab	1
Dichlorobromomethane	00075-27-4		0.01	mg/l	Monthly	Grab	

1,1 Dichloroethane	00075-34-3		0.01	mg/l	Monthly	Grab	
1,1 – Dichloroethylene	00075-35-4		0.01	mg/l	Monthly	Grab	
Methylene Chloride	00065-09-2		0.01	mg/l	Monthly	Grab	
1,1,2,2- Tetrachloroethane	00079-34-5		0.01	mg/l	Monthly	Grab	
Toluene	00108-88-3		0.05	mg/l	Monthly	Grab	
1,2-(trans)-Dichloroethylene	00156-60-5		0.01	mg/l	Monthly	Grab	
1.2-(cis)-Dichloroethylene	00156-59-2		0.01	mg/l	Monthly	Grab	
1,1,1-Trichloroethane	00071-55-6		0.01	mg/l	Monthly	Grab	
Xylenes, Total	00095-47-6 00108-38-3 00106-42-3		0.01	mg/l	Monthly	Grab	
Vinyl Chloride	00075-01-4		0.01	mg/l	Monthly	Grab	
Benzene	00071-43-2		0.001	mg/l	Monthly	Grab	

Outfall No. and Parameter	CAS No.	Discharge Limitations		Units	Minimum Monitoring Requirements		FN
		Monthly Avg.	Daily Max		Measurement Frequency	Sample Type	
Outfall 001 - Stormwater, Groundwater Seepage and Treated Groundwater							
Flow	NA		Monitor	GPD	Monthly	Estimate	
pH (range)	NA	6.5 – 8.5		SU	Monthly	Grab	
Total Barium	07440-39-3		Monitor	mg/l	Quarterly	Grab	
Total Lead	07439-92-1		7.4	ug/l	Monthly	Grab	
Mercury	07439-97-6		Monitor	ng/l	Quarterly	Grab	2
Tetrachloroethylene	00127-18-4		0.001	mg/l	Monthly	Grab	
Trichloroethylene	-		0.01	mg/l	Monthly	Grab	
Cyanide, Free		5.2	22	ug/l	Quarterly	Grab	1

Outfall No. and Parameter	CAS No.	Discharge Limitations		Units	Minimum Monitoring Requirements		FN
		Monthly Avg.	Daily Max		Measurement Frequency	Sample Type	
Outfall 009 – Stormwater and Groundwater Seepage							
Cyanide, Free	-	5.2	22	ug/l	Quarterly	Grab	1

Footnotes: (see on the next page)

1: Free Cyanide is the sum of HCN and CN, expressed as CN. The WQBEL of 5.2 ug/l Monthly Average and 22 ug/l Daily Max for Cyanide will become effective on August 1, 2025. An interim limit of Monitor Only shall apply from August 1, 2022, until July 31, 2025.

2. Mercury shall be analyzed using USEPA Method 1631

Schedule of Compliance for Cyanide: The permittee shall comply with the following schedule:

Outfall No.	Parameters	Compliance Action	Due Date
009	Cyanide	The permittee shall monitor for Free Cyanide at the frequency specified in the effluent limit tables.	August 1, 2022
		Following 2 years of monitoring, permittee shall submit a report summarizing free Cyanide trends and if the final effluent limits are exceeded, measures to be taken to meet final limits and a schedule to be made enforceable under this permit equivalent. The schedule to address free cyanide exceedances shall not exceed 18 months.	September 30, 2024
		The facility shall meet effluent discharge limitations for Cyanide.	November 1, 2025
011	Cyanide	The discharge from Outfall 011 shall be sampled for Free Cyanide. A sample shall be collected during the first discharge of each month from Outfall 011 until three (3) samples have been collected.	March 1, 2023
		Sampling results shall be submitted to the DER project engineer.	

Additional Conditions:

1. Discharge is not authorized until such time as an engineering submission showing the method

of treatment is approved by the Department. The discharge rate may not exceed the effective or design treatment system capacity. A summary of the monthly monitoring data shall be submitted to the Department twenty-eight (28) days following the end of each monthly monitoring period. All monitoring data, engineering submissions and modification requests must be submitted to:

Karen A Cahill
Division of Environmental Remediation
NYSDEC R7
615 Erie Blvd West
Syracuse, NY 13204-2400
Tel: 315-426-7432
Email: karen.cahill@dec.ny.gov

2. Samples and measurements, to comply with the monitoring requirements specified above, must be taken from the effluent side of the final treatment unit prior to discharge to the receiving water body unless otherwise noted above.

3. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136 unless other test procedures have been specified in this permit equivalent.

4. Only site generated wastewater is authorized for treatment and discharge.

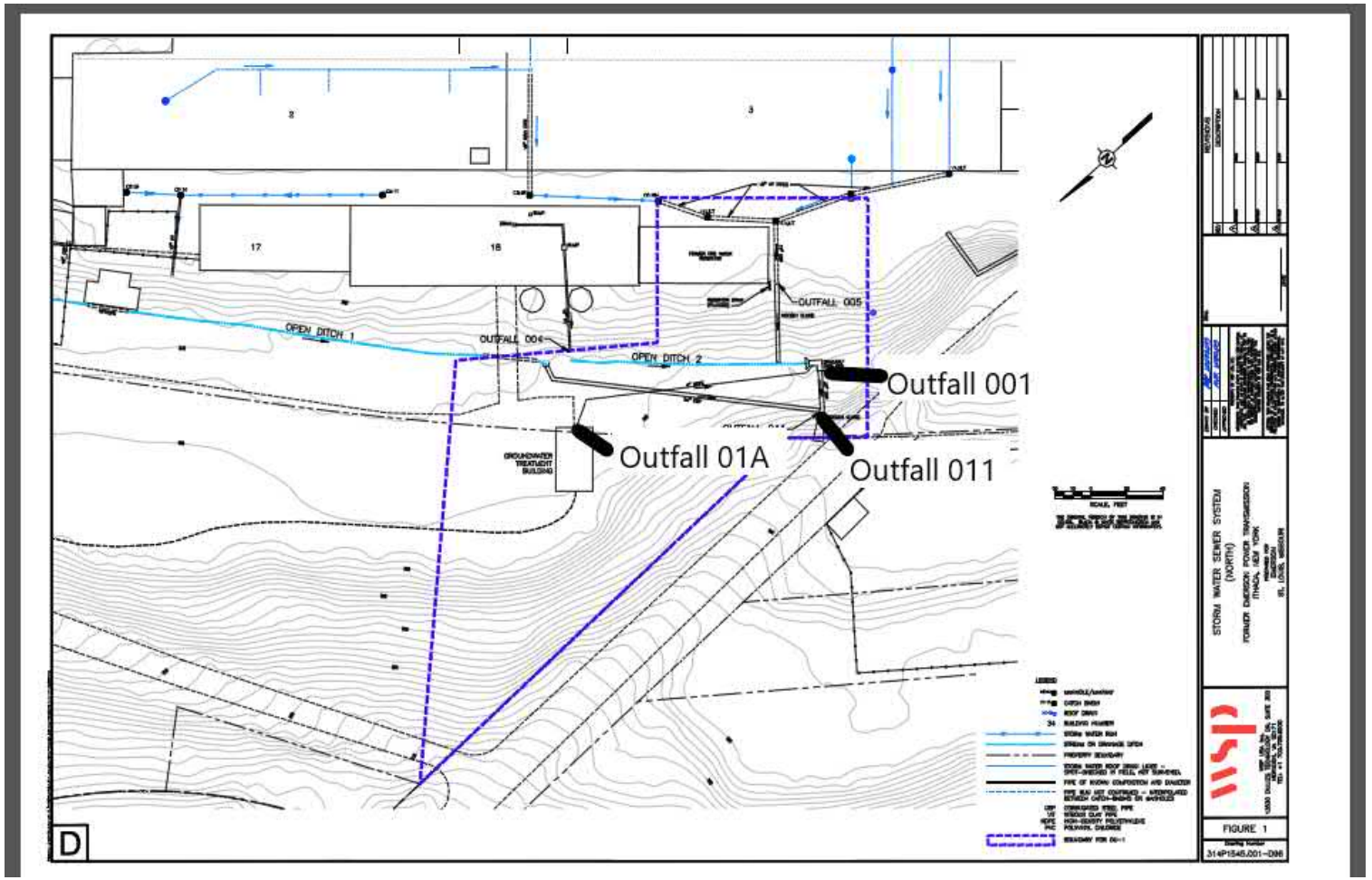
5. Authorization to discharge is valid only for the period noted above but may be renewed if appropriate. A request for renewal must be received 6 months prior to the expiration date to allow for a review of monitoring data and reassessment of monitoring requirements.

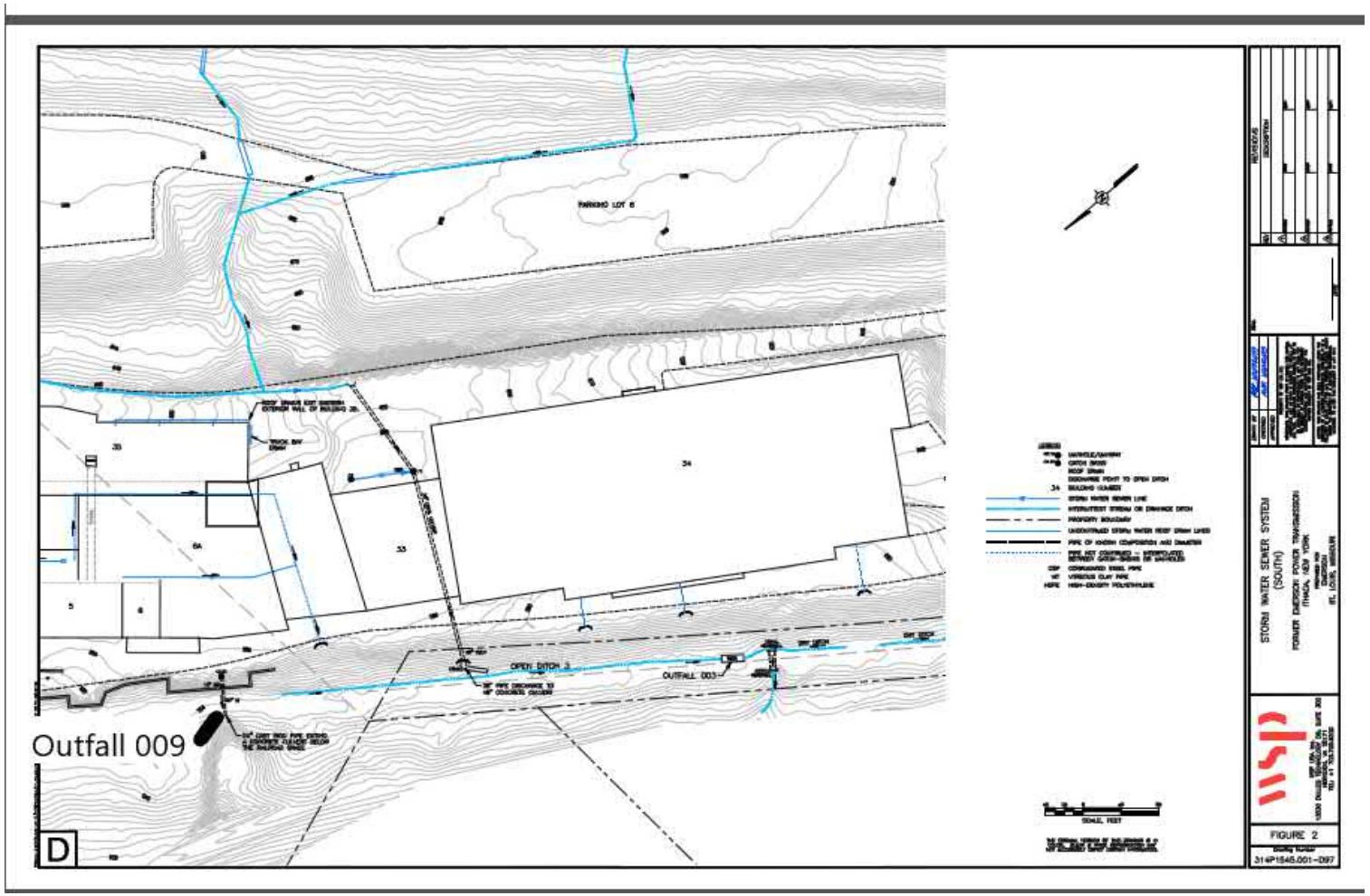
6. Any use of corrosion/scale inhibitors, biocidal-type compounds, or other water treatment chemicals used in the treatment process must be approved by the department prior to use.

7. This discharge and administration of this discharge must comply with the substantive requirements of 6NYCRR Part 750.

MONITORING LOCATIONS:

Outfall 001 and 01A




Outfall 009
PARKING LOT 6
OPEN DITCH 3
OUTFALL 003
STORM WATER SEWER SYSTEM (SOUTH)
FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
FIGURE 2
314P1545.001-D97