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Privileged and Confidential

March 8, 2018

Mr. Robert F. Lawrence
Orrick, Herrington & Sutcliffe LLP
Columbia Center
1152 15th Street, N.W.
Washington, D.C. 20005-1706

**Re: Limited Phase II Site Investigation Report - DRAFT
Newsday Media Group
235 Pinelawn Road
Melville, New York 11747**

Dear Mr. Lawrence:

GaiaTech Incorporated dba RPS performed a limited Phase II Site Investigation (Phase II) at the Newsday Media Group facility located at 235 Pinelawn Road, Melville, New York, Suffolk County, New York (the "Site"). The Site location is identified on the attached Figure I located in Appendix A. The investigation was conducted in accordance with the approved proposal dated November 29, 2017. This investigation was completed to assess potential impacts identified in the Phase I Environmental Site Assessment (ESA) completed at the site by RPS in July 2017. A summary of the sampling activities and findings of the limited Phase II investigation are summarized below.

BACKGROUND

The roughly 50-acre site is developed with an approximately 539,000 square foot production building, which is divided between an office area, production areas and a wastewater treatment plant. The production areas contain a packaging and bundling area, a reel room where paper reels are fed to the printing lines, two levels of printing presses, boiler rooms, emergency generator rooms, a cooling tower room, various chemical storage areas, mechanical rooms, electrical rooms and maintenance shops. Chemical storage areas include three bermed areas (containing fountain solution aboveground storage tanks [ASTs], press oil and degreasers) and ink ASTs. Based on the available historical records, the Phase I report identified 15 underground storage tanks (USTs), including three 20,000-gallon diesel USTs, one 2,500-gallon fuel oil UST, and 11 historical USTs operated at the site. The four active USTs were reported to be in good working condition and in compliance with current UST regulations.

The Phase I site assessment conducted by RPS in July 2017 and including additional follow-up research revealed the following potential concerns in connection with the Site:

Potential Subsurface Concerns

- **Historical Site Operations and Former USTs:** Newsday has operated as a newspaper printing facility since the late 1970s. Printing operations have included the use of petroleum-

based inks, washes, oils and chlorinated solvents. The facility has also generated hazardous waste including silver and spent solvents. While limited soil and groundwater investigations have been performed in the vicinity of a two former fuel oil USTs (indicating no actionable impacts), a few other former USTs were present in agency records for which no post-removal sampling was conducted, and the exact locations of these former tanks was uncertain.

- Twelve current or historical USTs were identified as follows:

UST System(s) Summary					
Tank ID	Contents	Capacity (gallons)	Installation Date	Removal Date	Comment
1	Diesel	25,000	1978	1986	Former location believed to be in the paved parking area near the wastewater treatment plant; No historical sampling performed.
2	Diesel	25,000	1978	1986	Same as above
3	Diesel	25,000	1978	1986	Same as above
4	Gasoline	12,000	1978	1986	Same as above
5	Spill containment	2,000	1978	1988	Location unknown; believed to be near the wastewater treatment building; No historical sampling is known to have occurred.
6	No. 6 fuel oil	25,000	1978	Abandoned 2010	SE corner of building; No concerns; previous sampling conducted.
7	No. 2 fuel oil	25,000	1978	Abandoned 2010	SE corner of building; No concerns; previous sampling conducted.
8	Industrial Waste	4,000	1978	1987	Location unknown; No historical sampling is known to have occurred.
14	Diesel	20,000	1985	2010	South side of property, replaced in 2010 with new USTs; No concerns; previous sampling conducted during UST upgrade activities.

15	Diesel	20,000	1985	2010	Same as above; No concerns; previous sampling conducted during UST upgrade activities.
16	Diesel	20,000	1985	2010	Same as above; No concerns; previous sampling conducted during UST upgrade activities.
18	Diesel	2,500	NA	NA	Double wall fiberglass tank; Active tank with leak/over fill detectors. No concerns noted.

Of the 12 current and historical USTs, the exact former locations of tanks #1 through #5, and #8 were unknown, and no previous sampling was performed. The other USTs are either currently in operation and/or proper sampling and closure/abandonment has been performed. Due to the nature of the on-site operations, Tanks #1 through 4 were likely used for vehicle refueling services at the site. Based upon RPS' review of aerial photo from 1980, the refueling is believed to have been conducted in the western parking lot area (in the general vicinity off the wastewater treatment plant). It appears that these refueling services were relocated to the southwestern portion of the site where tanks #14 through 16 were installed in 1985.

COMPLETED SCOPE OF WORK

As a result of the Phase I findings, RPS conducted a Limited Phase II Investigation to assess potential concerns identified in the July 2017 Phase I ESA. This included the potential for impacts to soil, groundwater and/or soil-gas from historical on-site operations (including solvent use) and the former removed or abandoned on-site USTs for which no previous sampling was performed.

As described in the November 29, 2017 proposal, RPS completed six soil borings, five sub-slab soil vapor sampling points, three additional soil-gas sampling points and two temporary wells at the Site. Additional groundwater sampling points were planned, however, due to the presence of hard, compacted sand, gravel and cobbles, the Geoprobe unit was unable to reach groundwater in most locations. As such, soil gas sampling was substituted for groundwater sampling in 3 locations.

Per the approved proposal, the property was subdivided into a northern portion and southern portion. As the northern portion had not historically contained industrial operations, the investigation was focused on the southern portion only. The borings/wells were advanced to evaluate potential impacts to the subsurface related to the potential concerns identified in the Phase I, including:

- Historic use of inks, washes, oils and chlorinated solvents throughout the production area:
 - two soil borings
 - five soil-gas sampling points
- Wastewater Treatment Plant Area (also the general vicinity of Tanks 1 through 5) :

- one soil boring
- one temporary well
- Presumed Location of former Tanks 1 through 4 (10K & 20K-gallon gasoline & diesel USTs):
 - one soil boring
 - one soil-gas point
- Along Northern Boundary of Southern Portion
 - two soil borings
 - two soil-gas points (with one of the two samples analyzed)

All soil and groundwater samples were analyzed for volatile organic compounds (VOCs) by USEPA Method 5035/8260C, polycyclic aromatic hydrocarbons (PAHs) by US EPA 8270D-SIM, and total or dissolved Resource Conservation and Recovery Act (RCRA) metals by US EPA 6010C & 7471A. The soil-gas and sub-slab vapor point samples were analyzed for VOCs by US EPA Method TO-15. The approximate sample locations are shown in Figure 2.

Field Activities

RPS cleared public subsurface utilities through the Dig Safely New York one call locating system. For safety purposes and prior to installing any soil borings, RPS also retained a private utility locating company (Ground Penetrating Radar Systems, LLC, GPRS) to verify that the proposed soil boring and temporary monitoring well locations were clear of underground utilities. The GPRS used a combination of radio-frequency locators, magnetometers and ground penetrating radar to clear each boring location. On January 17 to 19, 2018, RPS installed a total of six borings at the Site, with a few driven down to the water table and converted to temporary monitoring wells. Five sub-slab vapor samples and three soil-gas samples were also collected. The locations of the borings and temporary monitoring wells are shown on Figure 2 (Appendix A).

Soil Sampling

Borings were advanced around the Site to investigate the potential subsurface impacts from the reported historical operations. Two of the borings (GP-1 and GP-2) were completed inside the building. In most cases, soil samples were collected on a continuous basis using the direct-push probe. Each soil interval was field screened for VOC vapors using a photoionization detector (PID). Where field screening results suggested impact in soil, soil samples were selected for possible analysis. In the event field screening results do not indicate contamination, soil samples will be selected from a depth interval most likely to be impacted or at a location under an identified structure or UST.

The boring locations and sampling rationale are provided in the table below.

Boring Name	Depth (feet)	Rationale
GP-1	15	Historic use of inks, washes, oils and chlorinated solvents
GP-2	20	Historic use of inks, washes, oils and chlorinated solvents
GP-3	26	Former UST location (Tanks 1-4)
GP-4	25	Wastewater treatment area & Vicinity of tanks 1 through 4
GP-5	25	Northern parking lot area/boundary between northern and southern parcels
GP-6	25	Northern parking lot area/ boundary between northern and southern parcels

Soil borings were advanced to depths ranging from 15 and 26 feet below ground surface (bgs) using a Geoprobe® rig. Generally, continuous soil samples were collected from ground surface the bottom of each borehole using 5-foot stainless steel sampling tubes lined with plastic sample liners. In some cases, a spilt spoon sampler was used due to borehole caving and rocky soils. Due to the difficult drilling conditions the Duel Tube, Macrocore and discreet sampler were used with varying success. Upon retrieval from the sampling tube, each soil sample was visually inspected for evidence of contamination and logged in accordance with the Unified Soil Classification System. Portions of each soil sample were collected in separate sample bags for field-screening with a handheld, MiniRAE 3000 PID. The PID was equipped with a 10.6eV lamp and was calibrated to a 100 volumetric parts per million (Vppm) isobutylene standard. The field screening was used to provide an indication of the potential presence of volatile organic vapors to aid in the selection of samples for laboratory analysis. Soil boring logs, which include the PID readings, are included in Appendix B.

One soil sample from each location was submitted to the laboratory for analysis. Soil samples were collected directly into appropriate laboratory-supplied bottles, secured in a sample cooler and preserved with ice. The selected soil samples were analyzed for VOCs, PAHs, and total RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver). These analytical parameters were selected based on known materials used at the Site. The sample interval from each boring was selected for analysis based on the following criteria:

- The soil sample that exhibited the highest headspace concentration and/or visual evidence of impact; or
- A depth likely to display the presence of impact or corresponding to the base of a sub-grade structure or UST.

Under standard sample chain-of-custody procedures, all soil samples were delivered via FedEx to ESC Lab Sciences (ESC) in Mount Juliet, Tennessee, a New York accredited chemical analytical laboratory. The soil samples were analyzed using U.S. Environmental Protection Agency (USEPA) Methods 5035/8260C (VOCs), 8270D-SIM (PAHs), and 6010B/7470A (RCRA metals).

Groundwater Sampling

RPS proposed to collect groundwater samples from each of the six borings at the Site. However, since groundwater was not encountered above 26 feet bgs, the maximum depth explored using the Geoprobe rig, Temporary well points were installed and groundwater samples were collected from two borings (GP-4 and GP-6), advanced to depths of 50 and 60 feet bgs, respectively. These locations were selected for overall site coverage. Due to the difficulty in advancing the boreholes with caving dry soils, cobbles and rocky materials, a temporary well point was installed via drive casing. The wells were constructed of one inch diameter, 0.010 inch slotted polyvinyl chloride (PVC) screen and one inch diameter PVC riser casing. The well screens were placed at the base of the boring to intercept groundwater present within the unconsolidated zone.

Temporary well GP-4 was installed at a depth of 50 feet bgs with a 10 foot long screen in the sewage treatment area. Well GT-6 was installed in the northern parking lot area at a depth of 60 feet bgs and also constructed with a 10 foot long screen. Groundwater was encountered at depths of 40-42 feet at GP-4 and 52 feet at GP-6. The difference in water levels between the two wells is attributed to the variation in surface elevation between the two well points.

Following well installation, the wells were purged of sediment with a check valve with the assistance of a peristaltic pump. The wells were developed by removing enough water (approximately 3-gallons) until the groundwater was relatively free of turbidity. A groundwater sample from each temporary well was then collected shortly after development. Under standard sample chain-of-custody procedures, the collected groundwater samples were delivered via FedEx to ESC. The groundwater samples were analyzed using USEPA Methods 8260C (VOCs), 8270D (PAHs), and 6010B/7470A (dissolved RCRA metals – lab filtered).

Sub-slab and Soil-gas Sampling

Sub-slab Vapor Points - To evaluate the potential for interior soil vapor intrusion, five sub-slab vapor points (SS-1 through SS-5) were installed in the building. One sub-slab soil vapor point sample (SS-1) was located in a utility area in the middle of the office area, while another sample (SS-2) was installed in the newsprint paper storage area/near the printing area and the final three samples (SS-3, SS-4 and SS-5) were installed in the general printing area of the plant. The vapor point locations were selected for overall building coverage (Figure 2). Installation of the points, connection testing and sampling were consistent with the 2006 New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

All interior sub-slab vapor points were installed by drilling a 3/8 inch whole through the floor slab and installing a vapor pin sealed with a silicone rubber outer seal set within the drill hole. The vapor pin was further sealed with clay on the concrete top surface to ensure a good seal. Teflon hosting was connected to the pin and by swage lock nut to a 30-minute flow regulator attached to a laboratory supplied 6-liter Summa canister and a peristaltic pump. The peristaltic pump was used to purge the air under the slab and to test the various sampling train connections by inducing a vacuum to test the floor connection. The entire sampling train assembly and vapor pin floor seal was next tested by releasing helium into a plastic enclosure sealed to the floor surface. Within this enclosure the sampling train was inserted to test all of the connections. The pump air output was then tested via a helium meter to ensure all seals were acceptable for sampling. The testing at all vapor pin locations determined that the seals were found to be acceptable and sampling could be completed.

The sub-slab vapor testing began by removing the peristaltic pump/hose from the assembly and subsequently turning on the valve to the Summa canister. The starting time and initial vacuum pressure were noted on the canister label. The flow regulator was allowed to run for approximately 30-minutes at each location. The final time and canister vacuum was noted on the label and the 30-minute period was complete and the summa valve was shutoff. Following valve shutoff, the flow regulator was removed and the canister sealed above the valve with the supplied nut. The canister was then placed in a box for transport to the laboratory. The samples were then, shipped to ESC laboratory under standard chain-of-custody protocol and analyzed for VOCs using USEPA Method TO-15.

Soil-gas Sampling

Due to the time and difficulty of obtaining deep groundwater samples at the site, soil-gas samples were collected to evaluate three of the exterior boring locations in lieu of a groundwater sample. Samples were collected generally to look for any high concentration anomalous readings that could indicate groundwater impact. Three soil-gas samples were collected near (6 feet away) from soil borings GP-3, GP-5 and GP-6. GP-6 was not analyzed since a groundwater sample was later collected from this location.

Soil-gas points were installed at a depth of between 5 and 6 feet below the ground surface. A macrocore Geoprobe boring was initially advanced to the stated depth and a soil-gas screen was installed at the base of the boring and attached to a Teflon hose. Clean sand was placed around the soil-gas inlet screen and also several inches above the screen. Above the sand, granulated bentonite was hydrated up and above the ground surface to provide a good seal. The seal and sampling assembly was tested as previously described above. All seals in the sampling train were found to be acceptable and testing began with the Teflon hose connected directly to the flow regulator and 6-liter summa canister. Testing was also completed similar to the sub-slab samples with a 30-minute testing period. The samples were then, shipped to ESC laboratory under standard chain-of-custody protocol and analyzed for VOCs using USEPA Method TO-15.

Site Restoration

Upon completion of sampling activities, and between uses to avoid cross contamination, all down-hole soil boring and non-dedicated sampling equipment was decontaminated. The decontamination train included an Alconox®/water wash and scrubbing, followed by a potable water rinse. Once the samples were collected, the boreholes were back-filled with soil cuttings and bentonite chips. The surface was then restored (to the extent feasible) to its original condition.

FINDINGS AND RESULTS

The following section summarizes the findings of the limited Phase II investigation conducted by RPS on January 17 to 19, 2018.

Geology, Hydrogeology and Field Screening Results

Soil borings were advanced in both the interior and exterior areas of the Site. Concrete and asphalt pavement were present at four of the six soil boring locations. Crushed stone, sand or sand and gravel fill were present under the pavement to a depth of approximately 1 to 4 feet bgs. Native sand and gravel with cobbles were encountered between from base of the fill materials to a depth of 26 feet, the deepest level reached via the Geoprobe rig. No obvious visual, olfactory or elevated PID readings were found at any boring location.

The soil boring logs are presented in Appendix B.

Onsite Newsday personnel stated that when the wastewater plant was constructed, groundwater was present at approximately 45 feet below ground surface in geotechnical borings completed in the area. Groundwater was not encountered in the upper 26 feet (the maximum depth explored) during the standard soil borings activities. In order to sample the groundwater, in two locations near the former Tanks 1 through 4, drive casing was pushed by the Geoprobe rig to a depth of 50 feet and a temporary well was installed with a reported water level of approximately 40-42 feet bgs. The second temporary well was installed at boring GP-6 by pushing the drive casing to a

depth of 60 feet. The water level in this temporary well was measured at approximately 52 feet bgs

Topography in the area varies considerably across the site, with the northern parking lot area as the highest point, with the ground surface generally sloping to the south. The lowest point on the property is in the area of the sewage treatment plant that appears to be around 10 to 12 feet lower in elevation than the northern parking lot. The area topography and likely groundwater flow is to the south and towards Oster Bay of the Atlantic Ocean around 7.5 miles from the Site.

Soil Analytical Results

RPS compared all soil analytical results to the New York State Department of Environmental Conservation (NYDEC) Soil Cleanup Objectives for Unrestricted Use and Restricted Use, Protection of Public Health for Restricted Residential, Commercial, Industrial, Protection of Ecological Resources and Protection of Groundwater. The results of the soil analysis are summarized in Table 1 (in Appendix C) and are discussed below. The laboratory analytical report is provided in Appendix D.

VOCs

The soil analysis detected acetone in soil samples collected from two borings (GP-5 and GP-6). Although NYSDEC does not have soil cleanup standards for acetone, the detected concentrations are generally low and are not believed to pose a concern. The soil analysis did not detect other VOCs at concentrations in excess of laboratory detection limits or NYSDEC soil cleanup objectives.

PAHs

Several PAHs were detected in soil samples collected from four borings (GP-1, GP-2, GP-3 and GP-5); however, none of the PAHs were present at concentrations in excess of NYSDEC soil cleanup objectives.

Total Metals

Several metals (arsenic, barium, chromium, lead, mercury and/or cadmium) were detected in soil collected from all six borings (GP-1 through GP-6). All concentrations, however, were below the NYSDEC soil cleanup objectives.

Groundwater Analytical Results

RPS compared all groundwater sample results to the NYDEC Section 701.15 Class GA – Fresh Groundwater Quality Standards (GAs) within the New York State Technical and Operational Guidance Series (TOGS) for ambient water quality values. The laboratory analytical results are summarized in Table 2 (included in Appendix C) and are discussed below. The laboratory analytical report is provided in Appendix D.

VOCs

The groundwater analysis detected one VOC (dichlorodifluoromethane) in samples collected from the two temporary wells (GP-4 and GP-6). The concentrations (1.51 and 0.749 micrograms per liter [ug/L], respectively) did not exceed the GA (5 ug/L). The groundwater analysis did not detect other VOCs at concentrations in excess of laboratory detection limits or GAs.

PAHs

The groundwater analysis detected several PAHs in samples collected from the two temporary wells (GP-4 and GP-6). Benzo(b)fluoranthene was present in samples collected from both temporary (GP-4 and GP-6) at concentrations of 0.00424 ug/L and 0.00255 ug/L, respectively, which exceed the GA (0.002 ug/L). The two exceedances were noted in the qualifiers in the lab report as being found in the method blank (B qualifier) and the value was estimated (J qualifier). With the Exception of B(b)P, no other PAHs exceeded the NYSDEC GAs.

Dissolved Metals

The groundwater analysis detected two RCRA metals, (barium and mercury) in samples collected from the temporary wells (GP-4 and GP-6). The concentrations of barium (24.7 ug/L and 85.6 ug/L, respectively) did not exceed the NYSDEC GA (1,000 ug/L). Similarly, the concentration of mercury detected in the sample collected from GP-4 (0.0514 mg/L) did not exceed its GA (0.7 ug/L).

Sub-slab Soil Vapor and Soil-gas Sampling Results

The sub-slab soil vapor and soil-gas samples were compared to both the September 2006 New York State Brownfield Cleanup Program Technical Support Document's Inhalation Toxicity Values for Priority Contaminants and to the 2002 US EPA Office of Solid Waste and Emergency Response (OSWER) shallow soil-gas vapor intrusion guidance values as no New York values have been established for outside soil gas. The OSWER levels were used for a qualitative review of the soil gas sample results. The 2006 New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York was also used to evaluate the significance of any exceedance to the toxicity values.

The results of the sub-slab vapor and exterior soil-gas analysis are summarized in Table 3 (included in Appendix C) and are discussed below. The laboratory analytical report is provided in Appendix D.

Interior Sub-slab VOC Results

Several VOC compounds were detected in the five interior sub-slab vapor points (SS-1 through SS-5). The vapor analysis detected two compounds (carbon tetrachloride and 1,2,4-trimethylbenzene) at concentrations that exceed the Toxicity Values for Priority Contaminants (TVPC). The 1,2,4-trimethylbenzene (1,2,4-TMB) concentration (11 micrograms per cubic meter (ug/m³)) exceeded the TVPC guidance level of 6 ug/m³ in sample location SS-2 (located in the newsprint paper warehouse). The carbon tetrachloride concentration (6.67 ug/m³) also exceeded the TVPC concentration of 2 ug/m³ collected at sample location SS-3 (located in the middle of the plant).

Exterior Soil-gas VOC Results

The soil-gas analysis detected several VOCs in the two exterior soil-gas samples (SG-1 and SG-2). New York State does not have regulatory limits for exterior soil-gas concentrations; therefore,

RPS used the US EPA OSWER vapor intrusion guidance as a qualitative tool to evaluate the exterior soil-gas concentrations. The soil-gas analysis detected two compounds, 1,2,4-TMB (63.8 ug/m³) and 1,3-butadiene (8.8 ug/m³) in sample SG-2 at concentrations that slightly exceeds US EPA OSWER concentrations of 60 ug/m³ and 8.7 ug/m³, respectively. RPS does not consider these slight exceedances of the US EPA OSWER to be significant that would be indicative of any groundwater impact.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the above findings, RPS provides the following conclusions and recommendations:

Conclusions

During the completion of the limited Phase II investigation six soil, two groundwater, five sub-slab vapor points and two soil-gas samples were collected and analyzed during the investigation. All soil and groundwater samples were analyzed for VOCs, PAHs and RCRA metals. The sub-slab and soil-gas samples were analyzed for VOCs. Based on the sampling results the following conclusions were drawn:

Soils

- Soils at the site were found to consist of 1 to 4 feet of sandy fill or topsoil underlain by sand and gravel with cobbles to a depth of 26 feet. Area geology information indicates that the sandy units extend into the groundwater. Groundwater was found to be present at approximately 42 to 52 feet bgs.
- The soil analysis did not detect VOCs, PAHs, or RCRA metals at concentrations in excess of any NYSDEC soil cleanup objectives.

Groundwater

- The groundwater sampling identified no VOCs or RCRA metals at concentrations in excess of GAs. With the exception of benzo(b)fluoranthene, the groundwater analyses did not detect PAHs at concentrations in excess of GAs. RPS notes that due to the presence of benzo(b)fluoranthene (B(b)F) in the lab-produced blank sample, it appears likely that the B(b)F detection is a laboratory artifact, rather than an actual constituent of the groundwater sample. Additionally, even if present, groundwater at the Site is not used as a potable supply source, and as such, low-level detections such as these are not believed to pose ingestion or other significant exposure concerns or any likely threat of off-site migration. According to agency records, the nearest down-gradient (south) potable well is present at a distance of greater than ½ mile from the boundary of the property. Due to the relative distance from the site and the low B(b)F concentration detected, the B(b)F, if present in the groundwater beneath the Newsday site, appears to pose no significant risk to the any down gradient sources

Soil-Gas and Sub-slab Vapor

- Analysis of sub-slab vapor samples detected VOCs at concentrations in excess of TVPCs in

two of five samples. The analysis detected 1,2,4-TMB in one sample and carbon tetrachloride in another sample at concentrations in excess TVPCs. The compound exceedances were generally isolated to one sample out of five and “hit and miss” detections.

- Based upon these results, RPS concludes that the analysis did not detect severe or widespread presence of VOCs below the floor slab.
- Analysis of two soil-gas samples collected in outdoor areas detected several VOCs. New York State does not have regulatory limits for exterior soil-gas concentrations; therefore, RPS used the US EPA OSWER vapor intrusion guidance as a qualitative tool to evaluate the exterior soil-gas concentrations. The soil-gas analysis detected low levels of two petroleum compounds (1,2,4-TMB and 1,3-butadiene) in one sample at concentrations that slightly exceeds US EPA OSWER concentrations. Due to the relatively low concentrations and the exterior location, RPS does not consider these slightly elevated detections to be significant.

The soil, groundwater and soil gas/vapor sampling performed by RPS to investigate potential spills and releases from historical site operations did not identify any significant subsurface impacts. While minor detections of VOCs were present in the vapors beneath the building in isolated locations, their “hit or miss” dispersion suggests that no widespread impacts are present. Additionally, the potential for vapor intrusion into the building is low. The building slab is 8 to 10 inches thick, which serves to retard vapor migration into the plant, and the plant generally has high (15 to 20 ft.) ceilings throughout, which serves to dissipate and dilute any vapors that might migrate into the building. Based on these findings, no further investigation is warranted.

LIMITATIONS

This report is prepared for the sole benefit of Orrick, Herrington & Sutcliffe LLP, approved parties or any of its affiliates and their respective successors and assigns who may each rely on this report. This report and the findings shall not, in whole or in part, be relied upon by any other party, nor used by any other party, without the prior written consent of RPS and an authorized representative of Orrick, Herrington & Sutcliffe LLP.

RPS has conducted these professional services in accordance with current scientific principles and industrial standards of practices in the fields of environmental science and engineering on the date the work was conducted and in the same geographical area of the subject Site for similar studies. RPS's findings must be considered as professional opinions based upon the limited data collected during the course of the environmental Site investigation, which is limited in time and scope.

Independent laboratories qualified to perform analyses have performed analytical laboratory analyses. RPS has derived the findings, in part, from the analytical reports. These findings are contingent upon the validity of the analytical reports, provided RPS exercised the applicable standard of care in reviewing and assessing the analytical reports.



03.08.18

CLOSING

We appreciate the opportunity to be of service on this project.

Sincerely,

RPS | Environmental Risk

Completed By:

A handwritten signature in blue ink, appearing to read "Larry Bertsch".

Larry Bertsch, PG
Senior Geologist II – Project Manager

Technical Review and
Concurrence by:

A handwritten signature in blue ink, appearing to read "Steve Kline".

Steve Kline, PE
President

CC: Matthew Weisberg - Tribune Real Estate Holdings, LLC
Rita DeBoer - Tribune Media

Appendices

A - Figures

B - RPS Soil Boring and Well Construction Logs

C - Analytical Summary Tables

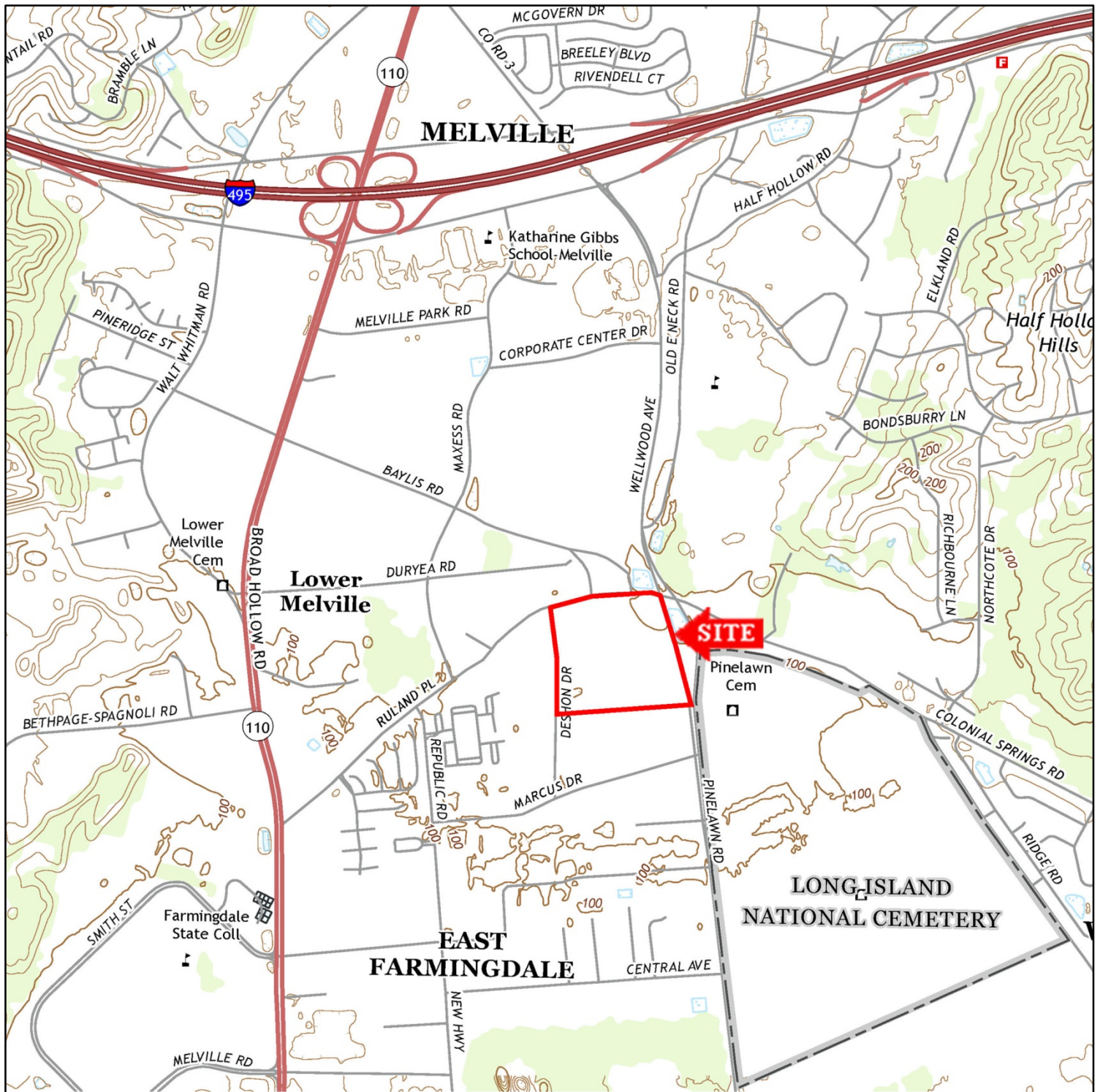
D - Laboratory Analytical Reports and Chain-of-Custody Documentation

Appendix A

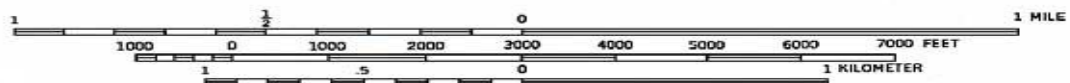
Figures

- **Figure 1 - Site Location Map**
- **Figure 2 - Site Layout and Sample Location Map**





Scale 1:24 000
Contour Interval 20 Feet

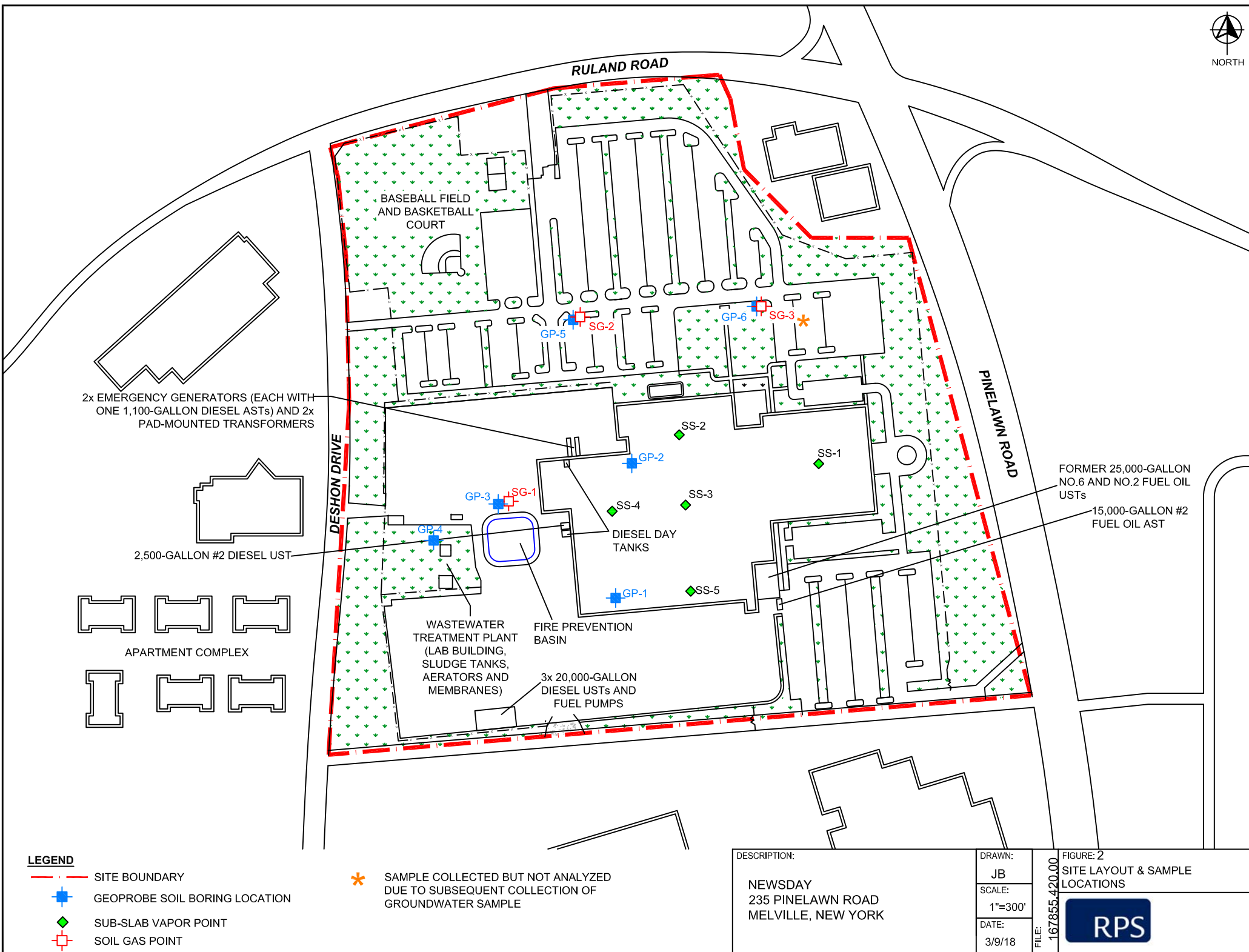


Quadrangle Location

UNITED STATES GEOLOGICAL SURVEY
DEPARTMENT OF THE INTERIOR/USGS
HUNTINGTON QUADRANGLE
NEW YORK - SUFFOLK COUNTY
7.5 MINUTE SERIES (TOPOGRAPHIC)



2016



Appendix B

RPS Soil Boring and Well Construction Logs





BORING LOG GP-1

(PAGE 1 TO 1)

Newsday
235 Pinelawn Road
Melville, New York
RPS Project #167855.420.00

FUNCTION INFORMATION
Date/Time Started : 1/17/18
Date/Time Completed : 1/17/18
Total Depth of Boring : 15 ft bgs
Total Depth of Well :

Logged By : L. Bertsch
Drilling Method : Geoprobe (Track)
Hole Diameter : 2 inches
Drilling Company : Eastern Env Solutions
Sampling Method : Hand Auger/Dual Tube/Mac

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					FB		Concrete
1	1		90	0			Fill - Yellow Brown Fine Grained Sand, dry, no odor.
2					AR		
3	2			0			
4							
5							
6	3		60	0.8			Light Brown Sand and Gravel, Cobbles, Very Compact, Dry, No Odor
7							
8							
9	4			1.5			
10					SW-GW		
11	5		70	1.6			
12							
13							
14	6			1.8			
15							Refusal on a Rock - End of Boring at 15 Feet



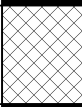
BORING LOG GP-2

(PAGE 1 TO 1)

Newsday
235 Pinelawn Road
Melville, New York
RPS Project #167855.420.00

FUNCTION INFORMATION
Date/Time Started : 1/17/18
Date/Time Completed : 1/17/18
Total Depth of Boring : 20 ft bgs
Total Depth of Well :

Logged By : L Bertsch
Drilling Method : Geoprobe (Track)
Hole Diameter : 2 inches
Drilling Company : Eastern Env Solutions
Sampling Method : Hand Auger, Macrocore

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					FB		Concrete
1	1		100%	3.1	AR		Fill - Yellow Brown Fine Grained Sand
2					FB		Concrete
3							Light Brown Sand and Gravel, Cobbles, Compact, Dry, No Odor
4	2			3.9			
5							
6							
7	3		80	4.6			
8							
9							
10	4			4.5			
11							
12	5		75	2.6	SW-GW		
13							
14							
15	6			1.9			
16							
17	7		90	2			
18							
19	8			1.6			
20							Refusal on a rock - End of Boring at 20 Feet



BORING LOG GP-3

(PAGE 1 TO 1)

Newsday
235 Pinelawn Road
Melville, New York
RPS Project #167855.420.00

FUNCTION INFORMATION
Date/Time Started : 1/18/18
Date/Time Completed : 1/18/18
Total Depth of Boring : 25 ft bgs
Total Depth of Well :

Logged By : L Bertsch
Drilling Method : Geoprobe (Track)
Hole Diameter : 2 inches
Drilling Company : Eastern Env Solutions
Sampling Method : Macrocore, Split Spoon

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					FB		Asphalt
1	1		75%	3.1	AR		Fill - Sand and Gravel, No Odor, Dry
2							Light Brown Sand and Gravel, Very Compact, Cobbles, No Odor, Dry
3							
4	2			4.8			
5							
6	3		90%	3			
7							
8							
9	4			3.8			
10							
11	5		60	3.6			
12							
13							
14	6			4.2	SW/GW		
15							
16	7		60	5.9			
17							
18	8		NS	NS			
19							
20	9		75	0.9			
21							
22							
23	10		NS	NS			
24							
25	11		75	1.0			
26							End of Boring at 26 Feet
27							
28							
29							
30							



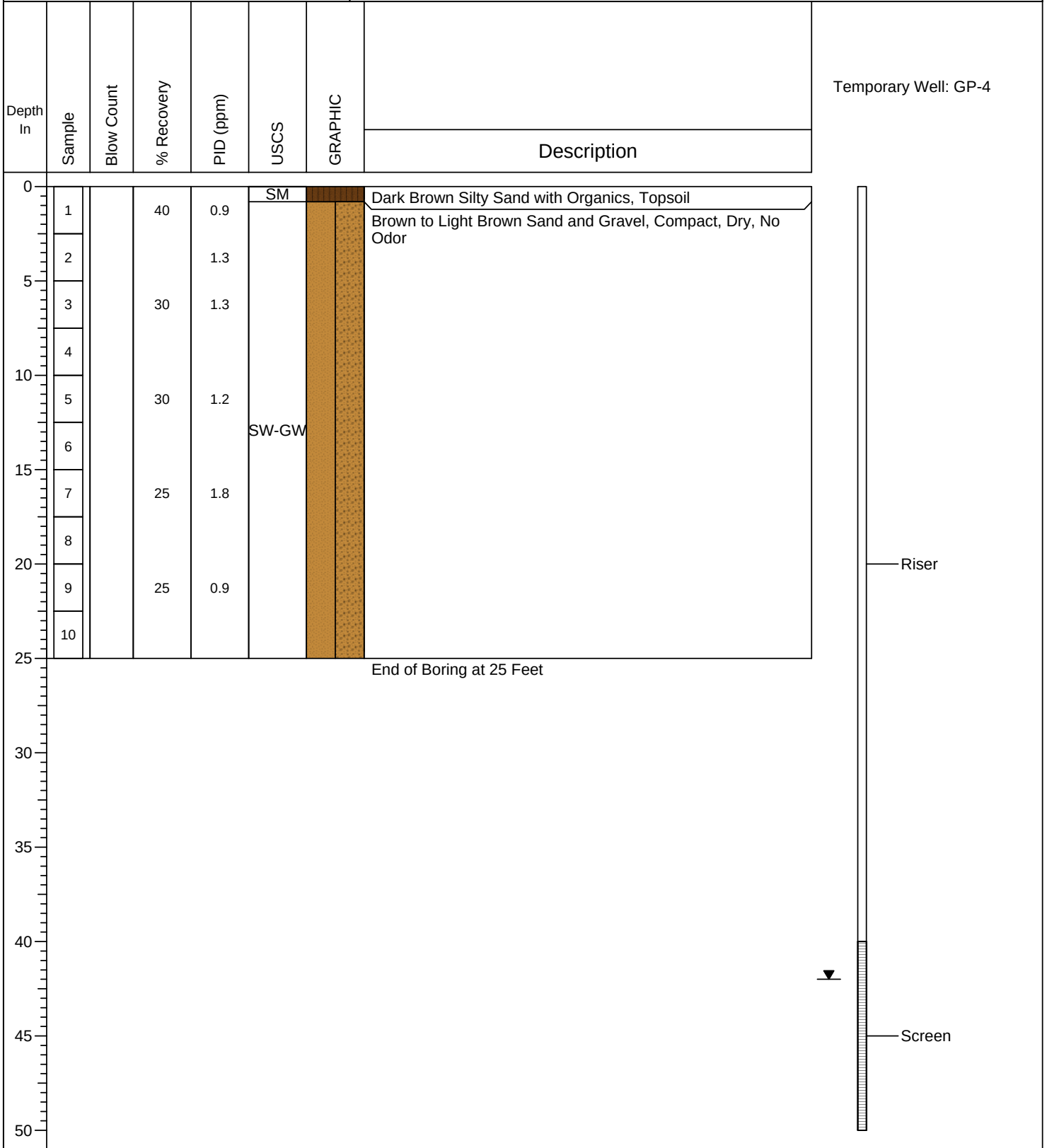
RPS BORING LOG GP-4

(PAGE 1 TO 1)

Newsday
235 Pinelawn Road
Melville, New York
GaiaTech Project #167855.420.00

FUNCTION INFORMATION
Date/Time Started : 01/18/18
Date/Time Completed : 01/18/18
Total Depth of Boring : 25 ft bgs
Total Depth of Well : 50 ft bgs

Logged By : Larry Bertsch
Drilling Method : Geoprobe (Track)
Hole Diameter : 2 inches
Drilling Company : Eastern Env Solutions
Sampling Method : Duel Tube or Macro core





BORING LOG GP-5

(PAGE 1 TO 1)

Newsday
235 Pinelawn Road
Melville, New York
RPS Project #167855.420.00

FUNCTION INFORMATION
Date/Time Started : 1/19/18
Date/Time Completed : 1/19/18
Total Depth of Boring : 25 ft bgs
Total Depth of Well :

Logged By : L Bertsch
Drilling Method : Geoprobe (Track)
Hole Diameter : 2 inches
Drilling Company : Eastern Env Solutions
Sampling Method : Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Description
0					FB		Asphalt
1	1		80	1	AR		Fill - Sand and Gravel, No Odor, Dry
2							
3					ML		Brown Silt, Trace of Clay, Moist, Firm, No Odor
4	2			1.9			Light Brown Sand and Gravel, Dry, No Odor, Compact
5							
6	3		75	1.6			
7							
8							
9	4			1.1			
10							
11	5		50	1.3			
12							
13							
14	6			1.2	SW-GW		
15							
16	7		50	0.9			
17							
18							
19	8			0.8			
20							
21	9		50	0.6			
22							
23							
24	10			0.5			
25							End of Boring at 25 Feet
26							
27							
28							
29							
30							



RPS BORING LOG GP-6

(PAGE 1 TO 1)

Newsday
235 Pinelawn Road
Melville, New York
GaiaTech Project #167855.420.00

FUNCTION INFORMATION
Date/Time Started : 01/19/18
Date/Time Completed : 01/19/18
Total Depth of Boring : 25 ft bgs
Total Depth of Well : 60 ft bgs

Logged By : Larry Bertsch
Drilling Method : Geoprobe (Track)
Hole Diameter : 2 inches
Drilling Company : Eastern Env Solutions
Sampling Method : Dual Tube

Depth In	Sample	Blow Count	% Recovery	PID (ppm)	USCS	GRAPHIC	Temporary Well: GP-6	
							Description	
0	1		90	0.7	AR		Topsoil, No Odor	
	2			0.9			Brown to Light Brown Sand and Gravel, occasional cobble, Compact, Dry, No Odor	
5	3		60	0.2				
	4			0.5				
10	5		60	0.6				
	6			0.3	SW-GW			
15	7		70	0.5				
	8			0.5				
20	9		80	0.3				
	10			0.1				
25							End of Boring at 25 Feet	
30								
35								
40								
45								
50								
55								
60								



Appendix C

Tables

- 1 – Soil Sample Analytical Results Summary
- 2 – Groundwater Analytical Results Summary
- 3 – Soil Gas & Sub-slab Analytical Results Summary



Table 1
Soil Analytical Data
(detected parameters)

Sample Identification	Unrestricted Use Soil Cleanup Objectives	Restricted Use Soil Cleanup Objectives - Residential	Restricted Use Soil Cleanup Objectives - Commercial	Restricted Use Soil Cleanup Objectives - Industrial	Protection of Ecological Resources	Protection of Groundwater	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6
Sample Depth (feet)							13-15'	5-7'	15-17'	15-17'	3.5-5'	3.5'
Sample Date							1/19/2018	1/19/2018	1/19/2018	1/19/2018	1/19/2018	1/19/2018
VOCs - USEPA Method 8260C	mg/kg											
Acetone	NE	NE	NE	NE	NE	NE	BDL	BDL	BDL	BDL	0.0124* J	0.0101* J
All Other VOCs	Varies	Varies	Varies	Varies	Varies	Varies	BDL	BDL	BDL	BDL	BDL	BDL
Polynuclear Aromatic Hydrocarbons - Method 8270D-SIM	mg/kg											
Anthracene	100	100	500	1,000	NE	1,000	BDL	0.000658 J	BDL	BDL	BDL	BDL
Benzo(a)anthracene	1	1	5.6	1.1	NE	1	0.00116 J	0.000945 J	BDL	BDL	BDL	BDL
Benzo(a)pyrene	1	1	1	1.1	2.6	22	0.00106 J	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	1	1	5.6	11	NE	1.7	0.00106 J	0.000649 J	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	100	100	500	1,000	NE	1,000	0.00116 J	0.00101 J	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	0.8	3.9	56	110	NE	1.7	0.000767 J	BDL	BDL	BDL	BDL	BDL
Chrysene	1	3.9	56	110	NE	1	0.0011 J	0.000834 J	BDL	BDL	BDL	BDL
Fluoranthene	100	100	500	1,000	NE	1,000	0.00225 J	0.00168 J	BDL	BDL	BDL	BDL
Fluorene	30	100	500	1,000	30	386	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	11	NE	8.2	0.000931 J	0.000709 J	BDL	BDL	BDL	BDL
Naphthalene	12	100	500	1,000	NE	12	0.00282 BJ	0.00256 BJ	0.00276 BJ	BDL	0.00273 BJ	BDL
Phenanthrene	100	100	500	1,000	NE	1,000	0.00158 J	0.0025 J	0.000742 J	BDL	BDL	BDL
Pyrene	100	100	500	1,000	NE	1,000	0.00175 J	0.00221 J	BDL	BDL	BDL	BDL
All Other PAHs	Varies	Varies	Varies	Varies	Varies	Varies	BDL	BDL	BDL	BDL	BDL	BDL
RCRA Metals - USEPA Method 6010C & 7471A	mg/kg											
Arsenic	13	16	16	16	13	16	1.61 J	1.95 J	0.695 J	0.904 J	4.33	3.22
Barium	350	400	400	10,000	433	820	13.5	13.6	3.26	7.34	27.8	12.5
Cadmium	2.5	4.3	9.3	60	4	7.5	BDL	0.184 J	BDL	BDL	BDL	BDL
Chromium	30	180	1,500	6,800	41	NE	16.9	16.7	1.51	2.82	16	4.23
Lead	63	400	1,000	3,900	63	450	2.87	3.14	1.2	1.25	7.33	3.82
Mercury	0.18	0.81	2.8	5.7	0.18	0.73	0.00915 BJ	0.0118 BJ	0.00593 BJ	0.00763 BJ	0.0451	0.00923 BJ
All other metals	Varies	Varies	Varies	Varies	Varies	Varies	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
Samples analyzed by ESC Lab Sciences, Mt. Juliet, TN
Only detected analytes shown
NE = Not Established, NA= Not Applicable, BDL= Below Laboratory Detection Limi
Standards obtained from New York State Dept. of Env Conservation:
Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives
Table 375-6.8(b): Restricted Use Soil Cleanup Objectives
Shaded and bolded values exceed Soil Cleanup Objectives
*Acetone can be a laboratory artifact
B= The same analyte found in the associated method blank
J= The identification of the analyte is acceptable; the reported value is an estimate

Table 2
Groundwater Analytical Data

Sample Identification	Water Quality Standards Surface Waters and Groundwaters "GA"	GP-4	GP-6
Sample Date		1/19/2018	1/19/2018
VOCs - USEPA Method 8260	<i>ug/L</i>	<i>ug/L</i>	
Dichlorodifluoromethane	5	1.51 J	0.749 J
All Other VOC Analytes	Varies	BDL	BDL
Polynuclear Aromatic Hydrocarbons - Method 8270	<i>ug/L</i>	<i>ug/L</i>	
Acenaphthene	20	0.0164 J	BDL
Benzo(b)fluoranthene	0.002	0.00424 BJ	0.00255 BJ
Benzo(g,h,i)perylene	NE	0.00391 BJ	BDL
Fluorene	50	0.0306 J	BDL
Naphthalene	10	0.103 BJ	0.0816 BJ
Phenanthrene	50	0.0562	0.028 J
1-Methylnaphthalene	NE	0.0285 J	0.00872 J
2-Methylnaphthalene	NE	0.0373 J	0.0109 J
All other PAHs	Varies	BDL	BDL
RCRA Metals - USEPA Method 6010B & 7471A	<i>ug/L</i>	<i>ug/L</i>	
Barium	1,000	24.7	85.6
Mercury	0.7	0.0514 J	BDL
All other Metals	Varies	BDL	BDL

Notes:

Lab Analysis by ESC Lab Sciences, Mt. Juliet, TN

Only detected analytes are shown

NE = Not Established, NA=Not Applicable, BDL= Below Laboratory Detection Limits, NS=Not Sampled

Source of Drinking Water (groundwater) GA Standards obtained from New York State Dept. of Env Conservation Table 1 (cf. section 703.5)

TOGs NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES June 1998

Bolded values exceed GA Water Quality Standards

B= The same analyte found in the associated method blank

J= The identification of the analyte is acceptable; the reported value is an estimate

Table 3
Soil Gas Analysis

Sample Identification	Toxicity Values for Priority Contaminants	EPA OSWER Subsurface Vapor Intrusion Guidance Shallow Soil Gas	SG-1	SG-2	SS-1	SS-2	SS-3	SS-4	SS-5
Gas Sample Type			Exterior Soil Gas		Interior Sub-Slab Vapor Samples				
Sample Date			1/18/2018	1/19/2018	1/18/2018	1/18/2018	1/19/2018	1/19/2018	1/19/2018
VOCs - USEPA Method TO-15	ug/m ³								
Acetone	30,000	35,000	57.9	97.5	55.5	113	1,120	180	302
Benzene	30	310	4.11	5.63	1.44	BDL	16.3	3.32	2.75
Benzylchloride	NE	50	BDL	3.13	BDL	BDL	BDL	BDL	BDL
1,3-Butadiene	NE	8.7	6.01	8.8	BDL	BDL	BDL	BDL	BDL
Carbon Disulfide	NE	7,000	7.88	4.48	BDL	BDL	BDL	4.11	BDL
Carbon Tetrachloride	2	160	BDL	BDL	BDL	BDL	6.67	BDL	BDL
Chloroform	50	110	2.98	BDL	BDL	BDL	19.4	6.68	24.6
Cloromethane	NE	NE	0.538	BDL	BDL	BDL	0.945	0.479	0.726
2-Chlorotoluene	NE	NE	BDL	2.12	BDL	BDL	BDL	BDL	BDL
Cyclohexane	NE	NE	17	1	1.26	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	10	1,100	BDL	BDL	1.21	BDL	5.72	BDL	BDL
1,1-Dichloroethene	200	2,000	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dioxane	3,600	NE	BDL	BDL	BDL	BDL	2.28	BDL	BDL
Ethanol	NE	NE	11.4	7.61	110	78.2	548	247	380
Ethylbenzene	2,000	2,200	18.1	3.79	13.2	14.2	2.88	3.18	1.85
4-Ethyltoluene	NE	NE	29.6	19.3	1.56	BDL	3.96	3.34	5.06
Trichlorofluoromethane	NE	7,000	5.89	1.38	2.61	BDL	21.3	15.7	140
Dichlorodifluoromethane	NE	2,000	92.7	36.6	6.16	BDL	75	13.5	118
Heptane	NE	NE	27	4.86	1.37	BDL	1.92	2.44	5.78
n-Hexane	NE	NE	13.3	4.97	1.3	BDL	2.6	1.31	2.54
Isopropylbenzene	NE	NE	11.4	2.3	BDL	BDL	BDL	BDL	BDL
Methylene Chloide	400	900	BDL	BDL	BDL	BDL	BDL	1.06	BDL
Methyl Butyl Ketone	NE	NE	BDL	BDL	BDL	BDL	10.2	BDL	11.2
2-Butanone (MEK)	5,000	10,000	56.1	33.1	9.77	BDL	47.3	19	30.5
4-Methyl-2-pentanone (MIBK)	NE	NE	BDL	BDL	BDL	BDL	7.3	BDL	8.71
Naphthalene	9.00	30	BDL	BDL	BDL	BDL	3.51	BDL	BDL
2-Propanol	NE	NE	3.74	BDL	1,620	147	669	27.4	184
Propene	NE	NE	49.3	45.6	BDL	BDL	56.7	5.09	8.6
Styrene	NE	10,000	BDL	0.947	BDL	BDL	6.98	1.06	0.984
1,1,2,2-Tetrachloroethane	NE	42	18.1	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethylene	100	810	4.87	1.53	3.04	BDL	10.6	3.67	16.2
Tetrahydrofuran	NE	NE	91.5	37.9	2.42	BDL	BDL	BDL	BDL
Toluene	300	4,000	18.9	7.76	41	10.9	53.1	4.08	9.27
1,1,1-Trichloroethane	2,200	22,000	BDL	BDL	BDL	BDL	11.8	BDL	BDL
Trichloethylene	40	22	2.38	BDL	BDL	BDL	2.91	BDL	BDL
1,2,4-Trimethylbenzene	6	60	24.5	63.8	1.75	11	5.36	3.9	5.96
1,3,5-Trimethylbenzene	6	60	18.4	21.2	BDL	BDL	1.39	1.08	1.3
2,2,4-Trimethylpentane	NE	NE	112	BDL	BDL	BDL	BDL	BDL	BDL
m&p xylene	100	70,000	63.7	14.8	46.5	59.2	11.5	12.3	7.45
o-Xylene	100	70,000	49.2	6.46	13	34.2	3.7	6.39	2.95
All other VOCs	NA	NA	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:

Samples analyzed by ESC Lab Sciences, Mt. Juliet, TN

Only detected analytes shown

NE = Not Established, NA= Not Applicable, BDL= Below Laboratory Detection Limits

SG=Soil Gas, SS=Sub-Slab

Standards obtained from: 2006 New York State Dept. of Env Conservation: Table 5.1.1-2 Toxicity Values for Priority Contaminants

Standards obtained from: EPA OSWER Subsurface Vapor Intrusion Guidance November 2002

Bolded values exceed EPA Values

Shaded & bolded values exceed NY Toxicity Values

Appendix D

Laboratory Analytical Reports and Chain-of-Custody Documentation



January 29, 2018

GAIA Tech - Chicago, IL

Sample Delivery Group: L964604
Samples Received: 01/20/2018
Project Number: 16785542000
Description: Melville, NY
Site: NY
Report To: Larry Bertsch
135 S. LaSalle St, Ste 3500
Chicago, IL 60603

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



GP-1 L964604-01 Solid

Collected by
Larry P Bertsch

Collected date/time
01/17/18 13:30

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1065860	1	01/25/18 07:40	01/25/18 07:50	KDW
Mercury by Method 7471B	WG1064970	1	01/22/18 00:39	01/23/18 17:04	EL
Metals (ICP) by Method 6010C	WG1066494	1	01/26/18 11:31	01/28/18 23:12	ST
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065171	1	01/17/18 13:30	01/22/18 19:11	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064936	1	01/22/18 08:23	01/23/18 17:04	ADF

¹ Cp

² Tc

³ Ss

⁴ Cn

GP-2 L964604-02 Solid

Collected by
Larry P Bertsch

Collected date/time
01/17/18 18:00

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1065855	1	01/25/18 07:52	01/25/18 08:04	KDW
Mercury by Method 7471B	WG1064970	1	01/22/18 00:39	01/23/18 18:01	EL
Metals (ICP) by Method 6010C	WG1066494	1	01/26/18 11:31	01/28/18 23:15	ST
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065171	1	01/17/18 18:00	01/22/18 19:31	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064936	1	01/22/18 08:23	01/23/18 17:26	ADF

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

GP-3 L964604-03 Solid

Collected by
Larry P Bertsch

Collected date/time
01/18/18 09:00

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1065860	1	01/25/18 07:40	01/25/18 07:50	KDW
Mercury by Method 7471B	WG1064970	1	01/22/18 00:39	01/23/18 18:03	EL
Metals (ICP) by Method 6010C	WG1066494	1	01/26/18 11:31	01/28/18 23:27	ST
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065171	1	01/18/18 09:00	01/22/18 19:51	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064936	1	01/22/18 08:23	01/23/18 17:48	ADF

⁹ Sc

GP-4 L964604-04 Solid

Collected by
Larry P Bertsch

Collected date/time
01/19/18 08:50

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1065860	1	01/25/18 07:40	01/25/18 07:50	KDW
Mercury by Method 7471B	WG1064970	1	01/22/18 00:39	01/23/18 18:06	EL
Metals (ICP) by Method 6010C	WG1066494	1	01/26/18 11:31	01/28/18 23:30	ST
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065171	1	01/19/18 08:50	01/22/18 20:11	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064936	1	01/22/18 08:23	01/23/18 18:10	ADF

GP-5 L964604-05 Solid

Collected by
Larry P Bertsch

Collected date/time
01/19/18 11:08

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1065860	1	01/25/18 07:40	01/25/18 07:50	KDW
Mercury by Method 7471B	WG1064970	1	01/22/18 00:39	01/23/18 18:08	EL
Metals (ICP) by Method 6010C	WG1066494	1	01/26/18 11:31	01/28/18 23:34	ST
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065171	1	01/19/18 11:08	01/22/18 23:26	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064936	1	01/22/18 08:23	01/23/18 18:32	ADF

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



GP-6 L964604-06 Solid

Collected by
Larry P Bertsch

Collected date/time
01/19/18 12:05

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1065860	1	01/25/18 07:40	01/25/18 07:50	KDW
Mercury by Method 7471B	WG1064970	1	01/22/18 00:39	01/23/18 18:11	EL
Metals (ICP) by Method 6010C	WG1066494	1	01/26/18 11:31	01/28/18 23:37	ST
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065171	1	01/19/18 12:05	01/22/18 23:46	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064936	1	01/22/18 08:23	01/23/18 18:54	ADF

¹ Cp

² Tc

³ Ss

⁴ Cn

GP-4 L964604-08 GW

Collected by
Larry P Bertsch

Collected date/time
01/19/18 09:10

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1064955	1	01/22/18 01:26	01/22/18 17:10	EL
Metals (ICP) by Method 6010C	WG1064590	1	01/20/18 17:02	01/22/18 03:15	JDG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065128	1	01/22/18 15:35	01/22/18 15:35	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064934	1	01/22/18 01:44	01/23/18 18:43	DMG

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

GP-6 L964604-09 GW

Collected by
Larry P Bertsch

Collected date/time
01/19/18 15:15

Received date/time
01/20/18 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG1064955	1	01/22/18 01:26	01/22/18 17:12	EL
Metals (ICP) by Method 6010C	WG1064590	1	01/20/18 17:02	01/22/18 03:18	JDG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1065128	1	01/22/18 15:52	01/22/18 15:52	GLN
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG1064934	1	01/22/18 01:44	01/23/18 19:08	DMG

⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.8		1	01/25/2018 07:50	WG1065860

Mercury by Method 7471B

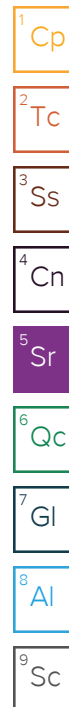
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.00915	B J	0.00280	0.0200	1	01/23/2018 17:04	WG1064970

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	1.61	J	0.650	2.00	1	01/28/2018 23:12	WG1066494
Barium	13.5		0.170	0.500	1	01/28/2018 23:12	WG1066494
Cadmium	U		0.0700	0.500	1	01/28/2018 23:12	WG1066494
Chromium	16.9		0.140	1.00	1	01/28/2018 23:12	WG1066494
Lead	2.87		0.190	0.500	1	01/28/2018 23:12	WG1066494
Selenium	U		0.740	2.00	1	01/28/2018 23:12	WG1066494
Silver	U		0.280	1.00	1	01/28/2018 23:12	WG1066494

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	01/22/2018 19:11	WG1065171
Acrylonitrile	U		0.00179	0.0100	1	01/22/2018 19:11	WG1065171
Benzene	U		0.000270	0.00100	1	01/22/2018 19:11	WG1065171
Bromobenzene	U		0.000284	0.00100	1	01/22/2018 19:11	WG1065171
Bromodichloromethane	U		0.000254	0.00100	1	01/22/2018 19:11	WG1065171
Bromoform	U		0.000424	0.00100	1	01/22/2018 19:11	WG1065171
Bromomethane	U		0.00134	0.00500	1	01/22/2018 19:11	WG1065171
n-Butylbenzene	U		0.000258	0.00100	1	01/22/2018 19:11	WG1065171
sec-Butylbenzene	U		0.000201	0.00100	1	01/22/2018 19:11	WG1065171
tert-Butylbenzene	U		0.000206	0.00100	1	01/22/2018 19:11	WG1065171
Carbon tetrachloride	U		0.000328	0.00100	1	01/22/2018 19:11	WG1065171
Chlorobenzene	U		0.000212	0.00100	1	01/22/2018 19:11	WG1065171
Chlorodibromomethane	U		0.000373	0.00100	1	01/22/2018 19:11	WG1065171
Chloroethane	U		0.000946	0.00500	1	01/22/2018 19:11	WG1065171
Chloroform	U		0.000229	0.00500	1	01/22/2018 19:11	WG1065171
Chloromethane	U		0.000375	0.00250	1	01/22/2018 19:11	WG1065171
2-Chlorotoluene	U		0.000301	0.00100	1	01/22/2018 19:11	WG1065171
4-Chlorotoluene	U		0.000240	0.00100	1	01/22/2018 19:11	WG1065171
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500	1	01/22/2018 19:11	WG1065171
1,2-Dibromoethane	U		0.000343	0.00100	1	01/22/2018 19:11	WG1065171
Dibromomethane	U		0.000382	0.00100	1	01/22/2018 19:11	WG1065171
1,2-Dichlorobenzene	U		0.000305	0.00100	1	01/22/2018 19:11	WG1065171
1,3-Dichlorobenzene	U		0.000239	0.00100	1	01/22/2018 19:11	WG1065171
1,4-Dichlorobenzene	U		0.000226	0.00100	1	01/22/2018 19:11	WG1065171
Dichlorodifluoromethane	U		0.000713	0.00500	1	01/22/2018 19:11	WG1065171
1,1-Dichloroethane	U		0.000199	0.00100	1	01/22/2018 19:11	WG1065171
1,2-Dichloroethane	U		0.000265	0.00100	1	01/22/2018 19:11	WG1065171
1,1-Dichloroethene	U		0.000303	0.00100	1	01/22/2018 19:11	WG1065171
cis-1,2-Dichloroethene	U		0.000235	0.00100	1	01/22/2018 19:11	WG1065171
trans-1,2-Dichloroethene	U		0.000264	0.00100	1	01/22/2018 19:11	WG1065171
1,2-Dichloropropane	U		0.000358	0.00100	1	01/22/2018 19:11	WG1065171
1,1-Dichloropropene	U		0.000317	0.00100	1	01/22/2018 19:11	WG1065171
1,3-Dichloropropane	U		0.000207	0.00100	1	01/22/2018 19:11	WG1065171





Collected date/time: 01/17/18 13:30

L964604

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000262	0.00100	1	01/22/2018 19:11	WG1065171
trans-1,3-Dichloropropene	U		0.000267	0.00100	1	01/22/2018 19:11	WG1065171
2,2-Dichloropropane	U		0.000279	0.00100	1	01/22/2018 19:11	WG1065171
Di-isopropyl ether	U		0.000248	0.00100	1	01/22/2018 19:11	WG1065171
Ethylbenzene	U		0.000297	0.00100	1	01/22/2018 19:11	WG1065171
Hexachloro-1,3-butadiene	U		0.000342	0.00100	1	01/22/2018 19:11	WG1065171
Isopropylbenzene	U		0.000243	0.00100	1	01/22/2018 19:11	WG1065171
p-Isopropyltoluene	U		0.000204	0.00100	1	01/22/2018 19:11	WG1065171
2-Butanone (MEK)	U		0.00468	0.0100	1	01/22/2018 19:11	WG1065171
Methylene Chloride	U		0.00100	0.00500	1	01/22/2018 19:11	WG1065171
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100	1	01/22/2018 19:11	WG1065171
Methyl tert-butyl ether	U		0.000212	0.00100	1	01/22/2018 19:11	WG1065171
Naphthalene	U		0.00100	0.00500	1	01/22/2018 19:11	WG1065171
n-Propylbenzene	U		0.000206	0.00100	1	01/22/2018 19:11	WG1065171
Styrene	U		0.000234	0.00100	1	01/22/2018 19:11	WG1065171
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100	1	01/22/2018 19:11	WG1065171
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100	1	01/22/2018 19:11	WG1065171
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100	1	01/22/2018 19:11	WG1065171
Tetrachloroethene	U		0.000276	0.00100	1	01/22/2018 19:11	WG1065171
Toluene	U		0.000434	0.00500	1	01/22/2018 19:11	WG1065171
1,2,3-Trichlorobenzene	U		0.000306	0.00100	1	01/22/2018 19:11	WG1065171
1,2,4-Trichlorobenzene	U		0.000388	0.00100	1	01/22/2018 19:11	WG1065171
1,1,1-Trichloroethane	U		0.000286	0.00100	1	01/22/2018 19:11	WG1065171
1,1,2-Trichloroethane	U		0.000277	0.00100	1	01/22/2018 19:11	WG1065171
Trichloroethene	U		0.000279	0.00100	1	01/22/2018 19:11	WG1065171
Trichlorofluoromethane	U		0.000382	0.00500	1	01/22/2018 19:11	WG1065171
1,2,3-Trichloropropane	U		0.000741	0.00250	1	01/22/2018 19:11	WG1065171
1,2,4-Trimethylbenzene	U		0.000211	0.00100	1	01/22/2018 19:11	WG1065171
1,2,3-Trimethylbenzene	U		0.000287	0.00100	1	01/22/2018 19:11	WG1065171
Vinyl chloride	U		0.000291	0.00100	1	01/22/2018 19:11	WG1065171
1,3,5-Trimethylbenzene	U		0.000266	0.00100	1	01/22/2018 19:11	WG1065171
Xylenes, Total	U		0.000698	0.00300	1	01/22/2018 19:11	WG1065171
(S) Toluene-d8	97.5			80.0-120		01/22/2018 19:11	WG1065171
(S) Dibromofluoromethane	103			74.0-131		01/22/2018 19:11	WG1065171
(S) 4-Bromofluorobenzene	95.8			64.0-132		01/22/2018 19:11	WG1065171

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Acenaphthene	U		0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Acenaphthylene	U		0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Benzo(a)anthracene	0.00116	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Benzo(a)pyrene	0.00106	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Benzo(b)fluoranthene	0.00106	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Benzo(g,h,i)perylene	0.00116	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Benzo(k)fluoranthene	0.000767	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Chrysene	0.00110	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Dibenz(a,h)anthracene	U		0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Fluoranthene	0.00225	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Fluorene	U		0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Indeno(1,2,3-cd)pyrene	0.000931	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Naphthalene	0.00282	└─┐	0.00200	0.0200	1	01/23/2018 17:04	WG1064936
Phenanthrene	0.00158	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
Pyrene	0.00175	└─┐	0.000600	0.00600	1	01/23/2018 17:04	WG1064936
1-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 17:04	WG1064936



Collected date/time: 01/17/18 13:30

L964604

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 17:04	WG1064936
2-Chloronaphthalene	U		0.00200	0.0200	1	01/23/2018 17:04	WG1064936
(S) Nitrobenzene-d5	74.0			14.0-149		01/23/2018 17:04	WG1064936
(S) 2-Fluorobiphenyl	78.7			34.0-125		01/23/2018 17:04	WG1064936
(S) p-Terphenyl-d14	71.5			23.0-120		01/23/2018 17:04	WG1064936

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.0		1	01/25/2018 08:04	WG1065855

Mercury by Method 7471B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.0118	B J	0.00280	0.0200	1	01/23/2018 18:01	WG1064970

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	1.95	J	0.650	2.00	1	01/28/2018 23:15	WG1066494
Barium	13.6		0.170	0.500	1	01/28/2018 23:15	WG1066494
Cadmium	0.184	J	0.0700	0.500	1	01/28/2018 23:15	WG1066494
Chromium	16.7		0.140	1.00	1	01/28/2018 23:15	WG1066494
Lead	3.14		0.190	0.500	1	01/28/2018 23:15	WG1066494
Selenium	U		0.740	2.00	1	01/28/2018 23:15	WG1066494
Silver	U		0.280	1.00	1	01/28/2018 23:15	WG1066494

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	01/22/2018 19:31	WG1065171
Acrylonitrile	U		0.00179	0.0100	1	01/22/2018 19:31	WG1065171
Benzene	U		0.000270	0.00100	1	01/22/2018 19:31	WG1065171
Bromobenzene	U		0.000284	0.00100	1	01/22/2018 19:31	WG1065171
Bromodichloromethane	U		0.000254	0.00100	1	01/22/2018 19:31	WG1065171
Bromoform	U		0.000424	0.00100	1	01/22/2018 19:31	WG1065171
Bromomethane	U		0.00134	0.00500	1	01/22/2018 19:31	WG1065171
n-Butylbenzene	U		0.000258	0.00100	1	01/22/2018 19:31	WG1065171
sec-Butylbenzene	U		0.000201	0.00100	1	01/22/2018 19:31	WG1065171
tert-Butylbenzene	U		0.000206	0.00100	1	01/22/2018 19:31	WG1065171
Carbon tetrachloride	U		0.000328	0.00100	1	01/22/2018 19:31	WG1065171
Chlorobenzene	U		0.000212	0.00100	1	01/22/2018 19:31	WG1065171
Chlorodibromomethane	U		0.000373	0.00100	1	01/22/2018 19:31	WG1065171
Chloroethane	U		0.000946	0.00500	1	01/22/2018 19:31	WG1065171
Chloroform	U		0.000229	0.00500	1	01/22/2018 19:31	WG1065171
Chloromethane	U		0.000375	0.00250	1	01/22/2018 19:31	WG1065171
2-Chlorotoluene	U		0.000301	0.00100	1	01/22/2018 19:31	WG1065171
4-Chlorotoluene	U		0.000240	0.00100	1	01/22/2018 19:31	WG1065171
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500	1	01/22/2018 19:31	WG1065171
1,2-Dibromoethane	U		0.000343	0.00100	1	01/22/2018 19:31	WG1065171
Dibromomethane	U		0.000382	0.00100	1	01/22/2018 19:31	WG1065171
1,2-Dichlorobenzene	U		0.000305	0.00100	1	01/22/2018 19:31	WG1065171
1,3-Dichlorobenzene	U		0.000239	0.00100	1	01/22/2018 19:31	WG1065171
1,4-Dichlorobenzene	U		0.000226	0.00100	1	01/22/2018 19:31	WG1065171
Dichlorodifluoromethane	U		0.000713	0.00500	1	01/22/2018 19:31	WG1065171
1,1-Dichloroethane	U		0.000199	0.00100	1	01/22/2018 19:31	WG1065171
1,2-Dichloroethane	U		0.000265	0.00100	1	01/22/2018 19:31	WG1065171
1,1-Dichloroethene	U		0.000303	0.00100	1	01/22/2018 19:31	WG1065171
cis-1,2-Dichloroethene	U		0.000235	0.00100	1	01/22/2018 19:31	WG1065171
trans-1,2-Dichloroethene	U		0.000264	0.00100	1	01/22/2018 19:31	WG1065171
1,2-Dichloropropane	U		0.000358	0.00100	1	01/22/2018 19:31	WG1065171
1,1-Dichloropropene	U		0.000317	0.00100	1	01/22/2018 19:31	WG1065171
1,3-Dichloropropane	U		0.000207	0.00100	1	01/22/2018 19:31	WG1065171

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000262	0.00100	1	01/22/2018 19:31	WG1065171
trans-1,3-Dichloropropene	U		0.000267	0.00100	1	01/22/2018 19:31	WG1065171
2,2-Dichloropropane	U		0.000279	0.00100	1	01/22/2018 19:31	WG1065171
Di-isopropyl ether	U		0.000248	0.00100	1	01/22/2018 19:31	WG1065171
Ethylbenzene	U		0.000297	0.00100	1	01/22/2018 19:31	WG1065171
Hexachloro-1,3-butadiene	U		0.000342	0.00100	1	01/22/2018 19:31	WG1065171
Isopropylbenzene	U		0.000243	0.00100	1	01/22/2018 19:31	WG1065171
p-Isopropyltoluene	U		0.000204	0.00100	1	01/22/2018 19:31	WG1065171
2-Butanone (MEK)	U		0.00468	0.0100	1	01/22/2018 19:31	WG1065171
Methylene Chloride	U		0.00100	0.00500	1	01/22/2018 19:31	WG1065171
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100	1	01/22/2018 19:31	WG1065171
Methyl tert-butyl ether	U		0.000212	0.00100	1	01/22/2018 19:31	WG1065171
Naphthalene	U		0.00100	0.00500	1	01/22/2018 19:31	WG1065171
n-Propylbenzene	U		0.000206	0.00100	1	01/22/2018 19:31	WG1065171
Styrene	U		0.000234	0.00100	1	01/22/2018 19:31	WG1065171
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100	1	01/22/2018 19:31	WG1065171
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100	1	01/22/2018 19:31	WG1065171
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100	1	01/22/2018 19:31	WG1065171
Tetrachloroethene	U		0.000276	0.00100	1	01/22/2018 19:31	WG1065171
Toluene	U		0.000434	0.00500	1	01/22/2018 19:31	WG1065171
1,2,3-Trichlorobenzene	U		0.000306	0.00100	1	01/22/2018 19:31	WG1065171
1,2,4-Trichlorobenzene	U		0.000388	0.00100	1	01/22/2018 19:31	WG1065171
1,1,1-Trichloroethane	U		0.000286	0.00100	1	01/22/2018 19:31	WG1065171
1,1,2-Trichloroethane	U		0.000277	0.00100	1	01/22/2018 19:31	WG1065171
Trichloroethene	U		0.000279	0.00100	1	01/22/2018 19:31	WG1065171
Trichlorofluoromethane	U		0.000382	0.00500	1	01/22/2018 19:31	WG1065171
1,2,3-Trichloropropane	U		0.000741	0.00250	1	01/22/2018 19:31	WG1065171
1,2,4-Trimethylbenzene	U		0.000211	0.00100	1	01/22/2018 19:31	WG1065171
1,2,3-Trimethylbenzene	U		0.000287	0.00100	1	01/22/2018 19:31	WG1065171
Vinyl chloride	U		0.000291	0.00100	1	01/22/2018 19:31	WG1065171
1,3,5-Trimethylbenzene	U		0.000266	0.00100	1	01/22/2018 19:31	WG1065171
Xylenes, Total	U		0.000698	0.00300	1	01/22/2018 19:31	WG1065171
(S) Toluene-d8	96.6			80.0-120		01/22/2018 19:31	WG1065171
(S) Dibromofluoromethane	103			74.0-131		01/22/2018 19:31	WG1065171
(S) 4-Bromofluorobenzene	97.0			64.0-132		01/22/2018 19:31	WG1065171

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.000658	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Acenaphthene	U		0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Acenaphthylene	U		0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Benzo(a)anthracene	0.000945	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Benzo(a)pyrene	U		0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Benzo(b)fluoranthene	0.000649	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Benzo(g,h,i)perylene	0.00101	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Benzo(k)fluoranthene	U		0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Chrysene	0.000834	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Dibenz(a,h)anthracene	U		0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Fluoranthene	0.00168	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Fluorene	U		0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Indeno(1,2,3-cd)pyrene	0.000709	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Naphthalene	0.00256	U	0.00200	0.0200	1	01/23/2018 17:26	WG1064936
Phenanthrene	0.00250	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
Pyrene	0.00221	U	0.000600	0.00600	1	01/23/2018 17:26	WG1064936
1-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 17:26	WG1064936

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 17:26	WG1064936
2-Chloronaphthalene	U		0.00200	0.0200	1	01/23/2018 17:26	WG1064936
(S) Nitrobenzene-d5	71.5			14.0-149		01/23/2018 17:26	WG1064936
(S) 2-Fluorobiphenyl	75.2			34.0-125		01/23/2018 17:26	WG1064936
(S) p-Terphenyl-d14	94.1			23.0-120		01/23/2018 17:26	WG1064936

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.5		1	01/25/2018 07:50	WG1065860

Mercury by Method 7471B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.00593	B J	0.00280	0.0200	1	01/23/2018 18:03	WG1064970

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	0.695	J	0.650	2.00	1	01/28/2018 23:27	WG1066494
Barium	3.26		0.170	0.500	1	01/28/2018 23:27	WG1066494
Cadmium	U		0.0700	0.500	1	01/28/2018 23:27	WG1066494
Chromium	1.51		0.140	1.00	1	01/28/2018 23:27	WG1066494
Lead	1.20		0.190	0.500	1	01/28/2018 23:27	WG1066494
Selenium	U		0.740	2.00	1	01/28/2018 23:27	WG1066494
Silver	U		0.280	1.00	1	01/28/2018 23:27	WG1066494

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	01/22/2018 19:51	WG1065171
Acrylonitrile	U		0.00179	0.0100	1	01/22/2018 19:51	WG1065171
Benzene	U		0.000270	0.00100	1	01/22/2018 19:51	WG1065171
Bromobenzene	U		0.000284	0.00100	1	01/22/2018 19:51	WG1065171
Bromodichloromethane	U		0.000254	0.00100	1	01/22/2018 19:51	WG1065171
Bromoform	U		0.000424	0.00100	1	01/22/2018 19:51	WG1065171
Bromomethane	U		0.00134	0.00500	1	01/22/2018 19:51	WG1065171
n-Butylbenzene	U		0.000258	0.00100	1	01/22/2018 19:51	WG1065171
sec-Butylbenzene	U		0.000201	0.00100	1	01/22/2018 19:51	WG1065171
tert-Butylbenzene	U		0.000206	0.00100	1	01/22/2018 19:51	WG1065171
Carbon tetrachloride	U		0.000328	0.00100	1	01/22/2018 19:51	WG1065171
Chlorobenzene	U		0.000212	0.00100	1	01/22/2018 19:51	WG1065171
Chlorodibromomethane	U		0.000373	0.00100	1	01/22/2018 19:51	WG1065171
Chloroethane	U		0.000946	0.00500	1	01/22/2018 19:51	WG1065171
Chloroform	U		0.000229	0.00500	1	01/22/2018 19:51	WG1065171
Chloromethane	U		0.000375	0.00250	1	01/22/2018 19:51	WG1065171
2-Chlorotoluene	U		0.000301	0.00100	1	01/22/2018 19:51	WG1065171
4-Chlorotoluene	U		0.000240	0.00100	1	01/22/2018 19:51	WG1065171
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500	1	01/22/2018 19:51	WG1065171
1,2-Dibromoethane	U		0.000343	0.00100	1	01/22/2018 19:51	WG1065171
Dibromomethane	U		0.000382	0.00100	1	01/22/2018 19:51	WG1065171
1,2-Dichlorobenzene	U		0.000305	0.00100	1	01/22/2018 19:51	WG1065171
1,3-Dichlorobenzene	U		0.000239	0.00100	1	01/22/2018 19:51	WG1065171
1,4-Dichlorobenzene	U		0.000226	0.00100	1	01/22/2018 19:51	WG1065171
Dichlorodifluoromethane	U		0.000713	0.00500	1	01/22/2018 19:51	WG1065171
1,1-Dichloroethane	U		0.000199	0.00100	1	01/22/2018 19:51	WG1065171
1,2-Dichloroethane	U		0.000265	0.00100	1	01/22/2018 19:51	WG1065171
1,1-Dichloroethene	U		0.000303	0.00100	1	01/22/2018 19:51	WG1065171
cis-1,2-Dichloroethene	U		0.000235	0.00100	1	01/22/2018 19:51	WG1065171
trans-1,2-Dichloroethene	U		0.000264	0.00100	1	01/22/2018 19:51	WG1065171
1,2-Dichloropropane	U		0.000358	0.00100	1	01/22/2018 19:51	WG1065171
1,1-Dichloropropene	U		0.000317	0.00100	1	01/22/2018 19:51	WG1065171
1,3-Dichloropropane	U		0.000207	0.00100	1	01/22/2018 19:51	WG1065171

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Collected date/time: 01/18/18 09:00

L964604

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000262	0.00100	1	01/22/2018 19:51	WG1065171
trans-1,3-Dichloropropene	U		0.000267	0.00100	1	01/22/2018 19:51	WG1065171
2,2-Dichloropropane	U		0.000279	0.00100	1	01/22/2018 19:51	WG1065171
Di-isopropyl ether	U		0.000248	0.00100	1	01/22/2018 19:51	WG1065171
Ethylbenzene	U		0.000297	0.00100	1	01/22/2018 19:51	WG1065171
Hexachloro-1,3-butadiene	U		0.000342	0.00100	1	01/22/2018 19:51	WG1065171
Isopropylbenzene	U		0.000243	0.00100	1	01/22/2018 19:51	WG1065171
p-Isopropyltoluene	U		0.000204	0.00100	1	01/22/2018 19:51	WG1065171
2-Butanone (MEK)	U		0.00468	0.0100	1	01/22/2018 19:51	WG1065171
Methylene Chloride	U		0.00100	0.00500	1	01/22/2018 19:51	WG1065171
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100	1	01/22/2018 19:51	WG1065171
Methyl tert-butyl ether	U		0.000212	0.00100	1	01/22/2018 19:51	WG1065171
Naphthalene	U		0.00100	0.00500	1	01/22/2018 19:51	WG1065171
n-Propylbenzene	U		0.000206	0.00100	1	01/22/2018 19:51	WG1065171
Styrene	U		0.000234	0.00100	1	01/22/2018 19:51	WG1065171
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100	1	01/22/2018 19:51	WG1065171
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100	1	01/22/2018 19:51	WG1065171
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100	1	01/22/2018 19:51	WG1065171
Tetrachloroethene	U		0.000276	0.00100	1	01/22/2018 19:51	WG1065171
Toluene	U		0.000434	0.00500	1	01/22/2018 19:51	WG1065171
1,2,3-Trichlorobenzene	U		0.000306	0.00100	1	01/22/2018 19:51	WG1065171
1,2,4-Trichlorobenzene	U		0.000388	0.00100	1	01/22/2018 19:51	WG1065171
1,1,1-Trichloroethane	U		0.000286	0.00100	1	01/22/2018 19:51	WG1065171
1,1,2-Trichloroethane	U		0.000277	0.00100	1	01/22/2018 19:51	WG1065171
Trichloroethene	U		0.000279	0.00100	1	01/22/2018 19:51	WG1065171
Trichlorofluoromethane	U		0.000382	0.00500	1	01/22/2018 19:51	WG1065171
1,2,3-Trichloropropane	U		0.000741	0.00250	1	01/22/2018 19:51	WG1065171
1,2,4-Trimethylbenzene	U		0.000211	0.00100	1	01/22/2018 19:51	WG1065171
1,2,3-Trimethylbenzene	U		0.000287	0.00100	1	01/22/2018 19:51	WG1065171
Vinyl chloride	U		0.000291	0.00100	1	01/22/2018 19:51	WG1065171
1,3,5-Trimethylbenzene	U		0.000266	0.00100	1	01/22/2018 19:51	WG1065171
Xylenes, Total	U		0.000698	0.00300	1	01/22/2018 19:51	WG1065171
(S) Toluene-d8	98.7			80.0-120		01/22/2018 19:51	WG1065171
(S) Dibromofluoromethane	103			74.0-131		01/22/2018 19:51	WG1065171
(S) 4-Bromofluorobenzene	96.2			64.0-132		01/22/2018 19:51	WG1065171

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Acenaphthene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Acenaphthylene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Benzo(a)anthracene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Benzo(a)pyrene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Benzo(b)fluoranthene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Benzo(g,h,i)perylene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Benzo(k)fluoranthene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Chrysene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Dibenz(a,h)anthracene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Fluoranthene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Fluorene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Naphthalene	0.00276	B J	0.00200	0.0200	1	01/23/2018 17:48	WG1064936
Phenanthrene	0.000742	J	0.000600	0.00600	1	01/23/2018 17:48	WG1064936
Pyrene	U		0.000600	0.00600	1	01/23/2018 17:48	WG1064936
1-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 17:48	WG1064936

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 17:48	WG1064936
2-Chloronaphthalene	U		0.00200	0.0200	1	01/23/2018 17:48	WG1064936
(S) Nitrobenzene-d5	98.0			14.0-149		01/23/2018 17:48	WG1064936
(S) 2-Fluorobiphenyl	99.8			34.0-125		01/23/2018 17:48	WG1064936
(S) p-Terphenyl-d14	94.1			23.0-120		01/23/2018 17:48	WG1064936

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.0		1	01/25/2018 07:50	WG1065860

Mercury by Method 7471B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.00763	B J	0.00280	0.0200	1	01/23/2018 18:06	WG1064970

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	0.904	J	0.650	2.00	1	01/28/2018 23:30	WG1066494
Barium	7.34		0.170	0.500	1	01/28/2018 23:30	WG1066494
Cadmium	U		0.0700	0.500	1	01/28/2018 23:30	WG1066494
Chromium	2.82		0.140	1.00	1	01/28/2018 23:30	WG1066494
Lead	1.25		0.190	0.500	1	01/28/2018 23:30	WG1066494
Selenium	U		0.740	2.00	1	01/28/2018 23:30	WG1066494
Silver	U		0.280	1.00	1	01/28/2018 23:30	WG1066494

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	01/22/2018 20:11	WG1065171
Acrylonitrile	U		0.00179	0.0100	1	01/22/2018 20:11	WG1065171
Benzene	U		0.000270	0.00100	1	01/22/2018 20:11	WG1065171
Bromobenzene	U		0.000284	0.00100	1	01/22/2018 20:11	WG1065171
Bromodichloromethane	U		0.000254	0.00100	1	01/22/2018 20:11	WG1065171
Bromoform	U		0.000424	0.00100	1	01/22/2018 20:11	WG1065171
Bromomethane	U		0.00134	0.00500	1	01/22/2018 20:11	WG1065171
n-Butylbenzene	U		0.000258	0.00100	1	01/22/2018 20:11	WG1065171
sec-Butylbenzene	U		0.000201	0.00100	1	01/22/2018 20:11	WG1065171
tert-Butylbenzene	U		0.000206	0.00100	1	01/22/2018 20:11	WG1065171
Carbon tetrachloride	U		0.000328	0.00100	1	01/22/2018 20:11	WG1065171
Chlorobenzene	U		0.000212	0.00100	1	01/22/2018 20:11	WG1065171
Chlorodibromomethane	U		0.000373	0.00100	1	01/22/2018 20:11	WG1065171
Chloroethane	U		0.000946	0.00500	1	01/22/2018 20:11	WG1065171
Chloroform	U		0.000229	0.00500	1	01/22/2018 20:11	WG1065171
Chloromethane	U		0.000375	0.00250	1	01/22/2018 20:11	WG1065171
2-Chlorotoluene	U		0.000301	0.00100	1	01/22/2018 20:11	WG1065171
4-Chlorotoluene	U		0.000240	0.00100	1	01/22/2018 20:11	WG1065171
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500	1	01/22/2018 20:11	WG1065171
1,2-Dibromoethane	U		0.000343	0.00100	1	01/22/2018 20:11	WG1065171
Dibromomethane	U		0.000382	0.00100	1	01/22/2018 20:11	WG1065171
1,2-Dichlorobenzene	U		0.000305	0.00100	1	01/22/2018 20:11	WG1065171
1,3-Dichlorobenzene	U		0.000239	0.00100	1	01/22/2018 20:11	WG1065171
1,4-Dichlorobenzene	U		0.000226	0.00100	1	01/22/2018 20:11	WG1065171
Dichlorodifluoromethane	U		0.000713	0.00500	1	01/22/2018 20:11	WG1065171
1,1-Dichloroethane	U		0.000199	0.00100	1	01/22/2018 20:11	WG1065171
1,2-Dichloroethane	U		0.000265	0.00100	1	01/22/2018 20:11	WG1065171
1,1-Dichloroethene	U		0.000303	0.00100	1	01/22/2018 20:11	WG1065171
cis-1,2-Dichloroethene	U		0.000235	0.00100	1	01/22/2018 20:11	WG1065171
trans-1,2-Dichloroethene	U		0.000264	0.00100	1	01/22/2018 20:11	WG1065171
1,2-Dichloropropane	U		0.000358	0.00100	1	01/22/2018 20:11	WG1065171
1,1-Dichloropropene	U		0.000317	0.00100	1	01/22/2018 20:11	WG1065171
1,3-Dichloropropane	U		0.000207	0.00100	1	01/22/2018 20:11	WG1065171

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

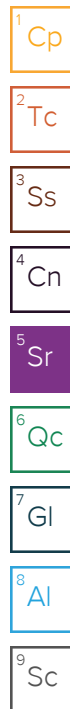


Collected date/time: 01/19/18 08:50

L964604

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000262	0.00100	1	01/22/2018 20:11	WG1065171
trans-1,3-Dichloropropene	U		0.000267	0.00100	1	01/22/2018 20:11	WG1065171
2,2-Dichloropropane	U		0.000279	0.00100	1	01/22/2018 20:11	WG1065171
Di-isopropyl ether	U		0.000248	0.00100	1	01/22/2018 20:11	WG1065171
Ethylbenzene	U		0.000297	0.00100	1	01/22/2018 20:11	WG1065171
Hexachloro-1,3-butadiene	U		0.000342	0.00100	1	01/22/2018 20:11	WG1065171
Isopropylbenzene	U		0.000243	0.00100	1	01/22/2018 20:11	WG1065171
p-Isopropyltoluene	U		0.000204	0.00100	1	01/22/2018 20:11	WG1065171
2-Butanone (MEK)	U		0.00468	0.0100	1	01/22/2018 20:11	WG1065171
Methylene Chloride	U		0.00100	0.00500	1	01/22/2018 20:11	WG1065171
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100	1	01/22/2018 20:11	WG1065171
Methyl tert-butyl ether	U		0.000212	0.00100	1	01/22/2018 20:11	WG1065171
Naphthalene	U		0.00100	0.00500	1	01/22/2018 20:11	WG1065171
n-Propylbenzene	U		0.000206	0.00100	1	01/22/2018 20:11	WG1065171
Styrene	U		0.000234	0.00100	1	01/22/2018 20:11	WG1065171
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100	1	01/22/2018 20:11	WG1065171
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100	1	01/22/2018 20:11	WG1065171
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100	1	01/22/2018 20:11	WG1065171
Tetrachloroethene	U		0.000276	0.00100	1	01/22/2018 20:11	WG1065171
Toluene	U		0.000434	0.00500	1	01/22/2018 20:11	WG1065171
1,2,3-Trichlorobenzene	U		0.000306	0.00100	1	01/22/2018 20:11	WG1065171
1,2,4-Trichlorobenzene	U		0.000388	0.00100	1	01/22/2018 20:11	WG1065171
1,1,1-Trichloroethane	U		0.000286	0.00100	1	01/22/2018 20:11	WG1065171
1,1,2-Trichloroethane	U		0.000277	0.00100	1	01/22/2018 20:11	WG1065171
Trichloroethene	U		0.000279	0.00100	1	01/22/2018 20:11	WG1065171
Trichlorofluoromethane	U		0.000382	0.00500	1	01/22/2018 20:11	WG1065171
1,2,3-Trichloropropane	U		0.000741	0.00250	1	01/22/2018 20:11	WG1065171
1,2,4-Trimethylbenzene	U		0.000211	0.00100	1	01/22/2018 20:11	WG1065171
1,2,3-Trimethylbenzene	U		0.000287	0.00100	1	01/22/2018 20:11	WG1065171
Vinyl chloride	U		0.000291	0.00100	1	01/22/2018 20:11	WG1065171
1,3,5-Trimethylbenzene	U		0.000266	0.00100	1	01/22/2018 20:11	WG1065171
Xylenes, Total	U		0.000698	0.00300	1	01/22/2018 20:11	WG1065171
(S) Toluene-d8	97.8			80.0-120		01/22/2018 20:11	WG1065171
(S) Dibromofluoromethane	102			74.0-131		01/22/2018 20:11	WG1065171
(S) 4-Bromofluorobenzene	100			64.0-132		01/22/2018 20:11	WG1065171



Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Acenaphthene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Acenaphthylene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Benzo(a)anthracene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Benzo(a)pyrene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Benzo(b)fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Benzo(g,h,i)perylene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Benzo(k)fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Chrysene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Dibenz(a,h)anthracene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Fluorene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Naphthalene	U		0.00200	0.0200	1	01/23/2018 18:10	WG1064936
Phenanthrene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
Pyrene	U		0.000600	0.00600	1	01/23/2018 18:10	WG1064936
1-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 18:10	WG1064936

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 18:10	WG1064936
2-Chloronaphthalene	U		0.00200	0.0200	1	01/23/2018 18:10	WG1064936
(S) Nitrobenzene-d5	73.0			14.0-149		01/23/2018 18:10	WG1064936
(S) 2-Fluorobiphenyl	77.8			34.0-125		01/23/2018 18:10	WG1064936
(S) p-Terphenyl-d14	69.4			23.0-120		01/23/2018 18:10	WG1064936

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.1		1	01/25/2018 07:50	WG1065860

Mercury by Method 7471B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.0451		0.00280	0.0200	1	01/23/2018 18:08	WG1064970

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	4.33		0.650	2.00	1	01/28/2018 23:34	WG1066494
Barium	27.8		0.170	0.500	1	01/28/2018 23:34	WG1066494
Cadmium	U		0.0700	0.500	1	01/28/2018 23:34	WG1066494
Chromium	16.0		0.140	1.00	1	01/28/2018 23:34	WG1066494
Lead	7.33		0.190	0.500	1	01/28/2018 23:34	WG1066494
Selenium	U		0.740	2.00	1	01/28/2018 23:34	WG1066494
Silver	U		0.280	1.00	1	01/28/2018 23:34	WG1066494

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	0.0124	J	0.0100	0.0500	1	01/22/2018 23:26	WG1065171
Acrylonitrile	U		0.00179	0.0100	1	01/22/2018 23:26	WG1065171
Benzene	U		0.000270	0.00100	1	01/22/2018 23:26	WG1065171
Bromobenzene	U		0.000284	0.00100	1	01/22/2018 23:26	WG1065171
Bromodichloromethane	U		0.000254	0.00100	1	01/22/2018 23:26	WG1065171
Bromoform	U		0.000424	0.00100	1	01/22/2018 23:26	WG1065171
Bromomethane	U		0.00134	0.00500	1	01/22/2018 23:26	WG1065171
n-Butylbenzene	U		0.000258	0.00100	1	01/22/2018 23:26	WG1065171
sec-Butylbenzene	U		0.000201	0.00100	1	01/22/2018 23:26	WG1065171
tert-Butylbenzene	U		0.000206	0.00100	1	01/22/2018 23:26	WG1065171
Carbon tetrachloride	U		0.000328	0.00100	1	01/22/2018 23:26	WG1065171
Chlorobenzene	U		0.000212	0.00100	1	01/22/2018 23:26	WG1065171
Chlorodibromomethane	U		0.000373	0.00100	1	01/22/2018 23:26	WG1065171
Chloroethane	U		0.000946	0.00500	1	01/22/2018 23:26	WG1065171
Chloroform	U		0.000229	0.00500	1	01/22/2018 23:26	WG1065171
Chloromethane	U		0.000375	0.00250	1	01/22/2018 23:26	WG1065171
2-Chlorotoluene	U		0.000301	0.00100	1	01/22/2018 23:26	WG1065171
4-Chlorotoluene	U		0.000240	0.00100	1	01/22/2018 23:26	WG1065171
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500	1	01/22/2018 23:26	WG1065171
1,2-Dibromoethane	U		0.000343	0.00100	1	01/22/2018 23:26	WG1065171
Dibromomethane	U		0.000382	0.00100	1	01/22/2018 23:26	WG1065171
1,2-Dichlorobenzene	U		0.000305	0.00100	1	01/22/2018 23:26	WG1065171
1,3-Dichlorobenzene	U		0.000239	0.00100	1	01/22/2018 23:26	WG1065171
1,4-Dichlorobenzene	U		0.000226	0.00100	1	01/22/2018 23:26	WG1065171
Dichlorodifluoromethane	U		0.000713	0.00500	1	01/22/2018 23:26	WG1065171
1,1-Dichloroethane	U		0.000199	0.00100	1	01/22/2018 23:26	WG1065171
1,2-Dichloroethane	U		0.000265	0.00100	1	01/22/2018 23:26	WG1065171
1,1-Dichloroethene	U		0.000303	0.00100	1	01/22/2018 23:26	WG1065171
cis-1,2-Dichloroethene	U		0.000235	0.00100	1	01/22/2018 23:26	WG1065171
trans-1,2-Dichloroethene	U		0.000264	0.00100	1	01/22/2018 23:26	WG1065171
1,2-Dichloropropane	U		0.000358	0.00100	1	01/22/2018 23:26	WG1065171
1,1-Dichloropropene	U		0.000317	0.00100	1	01/22/2018 23:26	WG1065171
1,3-Dichloropropane	U		0.000207	0.00100	1	01/22/2018 23:26	WG1065171

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000262	0.00100	1	01/22/2018 23:26	WG1065171
trans-1,3-Dichloropropene	U		0.000267	0.00100	1	01/22/2018 23:26	WG1065171
2,2-Dichloropropane	U		0.000279	0.00100	1	01/22/2018 23:26	WG1065171
Di-isopropyl ether	U		0.000248	0.00100	1	01/22/2018 23:26	WG1065171
Ethylbenzene	U		0.000297	0.00100	1	01/22/2018 23:26	WG1065171
Hexachloro-1,3-butadiene	U		0.000342	0.00100	1	01/22/2018 23:26	WG1065171
Isopropylbenzene	U		0.000243	0.00100	1	01/22/2018 23:26	WG1065171
p-Isopropyltoluene	U		0.000204	0.00100	1	01/22/2018 23:26	WG1065171
2-Butanone (MEK)	U		0.00468	0.0100	1	01/22/2018 23:26	WG1065171
Methylene Chloride	U		0.00100	0.00500	1	01/22/2018 23:26	WG1065171
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100	1	01/22/2018 23:26	WG1065171
Methyl tert-butyl ether	U		0.000212	0.00100	1	01/22/2018 23:26	WG1065171
Naphthalene	U		0.00100	0.00500	1	01/22/2018 23:26	WG1065171
n-Propylbenzene	U		0.000206	0.00100	1	01/22/2018 23:26	WG1065171
Styrene	U		0.000234	0.00100	1	01/22/2018 23:26	WG1065171
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100	1	01/22/2018 23:26	WG1065171
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100	1	01/22/2018 23:26	WG1065171
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100	1	01/22/2018 23:26	WG1065171
Tetrachloroethene	U		0.000276	0.00100	1	01/22/2018 23:26	WG1065171
Toluene	U		0.000434	0.00500	1	01/22/2018 23:26	WG1065171
1,2,3-Trichlorobenzene	U		0.000306	0.00100	1	01/22/2018 23:26	WG1065171
1,2,4-Trichlorobenzene	U		0.000388	0.00100	1	01/22/2018 23:26	WG1065171
1,1,1-Trichloroethane	U		0.000286	0.00100	1	01/22/2018 23:26	WG1065171
1,1,2-Trichloroethane	U		0.000277	0.00100	1	01/22/2018 23:26	WG1065171
Trichloroethene	U		0.000279	0.00100	1	01/22/2018 23:26	WG1065171
Trichlorofluoromethane	U		0.000382	0.00500	1	01/22/2018 23:26	WG1065171
1,2,3-Trichloropropane	U		0.000741	0.00250	1	01/22/2018 23:26	WG1065171
1,2,4-Trimethylbenzene	U		0.000211	0.00100	1	01/22/2018 23:26	WG1065171
1,2,3-Trimethylbenzene	U		0.000287	0.00100	1	01/22/2018 23:26	WG1065171
Vinyl chloride	U		0.000291	0.00100	1	01/22/2018 23:26	WG1065171
1,3,5-Trimethylbenzene	U		0.000266	0.00100	1	01/22/2018 23:26	WG1065171
Xylenes, Total	U		0.000698	0.00300	1	01/22/2018 23:26	WG1065171
(S) Toluene-d8	95.7			80.0-120		01/22/2018 23:26	WG1065171
(S) Dibromofluoromethane	100			74.0-131		01/22/2018 23:26	WG1065171
(S) 4-Bromofluorobenzene	96.9			64.0-132		01/22/2018 23:26	WG1065171

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Acenaphthene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Acenaphthylene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Benzo(a)anthracene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Benzo(a)pyrene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Benzo(b)fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Benzo(g,h,i)perylene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Benzo(k)fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Chrysene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Dibenz(a,h)anthracene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Fluorene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Naphthalene	0.00273	B J	0.00200	0.0200	1	01/23/2018 18:32	WG1064936
Phenanthrene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
Pyrene	U		0.000600	0.00600	1	01/23/2018 18:32	WG1064936
1-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 18:32	WG1064936

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 18:32	WG1064936
2-Chloronaphthalene	U		0.00200	0.0200	1	01/23/2018 18:32	WG1064936
(S) Nitrobenzene-d5	76.5			14.0-149		01/23/2018 18:32	WG1064936
(S) 2-Fluorobiphenyl	79.0			34.0-125		01/23/2018 18:32	WG1064936
(S) p-Terphenyl-d14	73.2			23.0-120		01/23/2018 18:32	WG1064936

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.8		1	01/25/2018 07:50	WG1065860

Mercury by Method 7471B

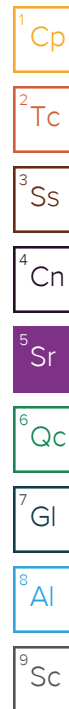
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Mercury	0.00923	B J	0.00280	0.0200	1	01/23/2018 18:11	WG1064970

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Arsenic	3.22		0.650	2.00	1	01/28/2018 23:37	WG1066494
Barium	12.5		0.170	0.500	1	01/28/2018 23:37	WG1066494
Cadmium	U		0.0700	0.500	1	01/28/2018 23:37	WG1066494
Chromium	4.23		0.140	1.00	1	01/28/2018 23:37	WG1066494
Lead	3.82		0.190	0.500	1	01/28/2018 23:37	WG1066494
Selenium	U		0.740	2.00	1	01/28/2018 23:37	WG1066494
Silver	U		0.280	1.00	1	01/28/2018 23:37	WG1066494

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Acetone	0.0101	J	0.0100	0.0500	1	01/22/2018 23:46	WG1065171
Acrylonitrile	U		0.00179	0.0100	1	01/22/2018 23:46	WG1065171
Benzene	U		0.000270	0.00100	1	01/22/2018 23:46	WG1065171
Bromobenzene	U		0.000284	0.00100	1	01/22/2018 23:46	WG1065171
Bromodichloromethane	U		0.000254	0.00100	1	01/22/2018 23:46	WG1065171
Bromoform	U		0.000424	0.00100	1	01/22/2018 23:46	WG1065171
Bromomethane	U		0.00134	0.00500	1	01/22/2018 23:46	WG1065171
n-Butylbenzene	U		0.000258	0.00100	1	01/22/2018 23:46	WG1065171
sec-Butylbenzene	U		0.000201	0.00100	1	01/22/2018 23:46	WG1065171
tert-Butylbenzene	U		0.000206	0.00100	1	01/22/2018 23:46	WG1065171
Carbon tetrachloride	U		0.000328	0.00100	1	01/22/2018 23:46	WG1065171
Chlorobenzene	U		0.000212	0.00100	1	01/22/2018 23:46	WG1065171
Chlorodibromomethane	U		0.000373	0.00100	1	01/22/2018 23:46	WG1065171
Chloroethane	U		0.000946	0.00500	1	01/22/2018 23:46	WG1065171
Chloroform	U		0.000229	0.00500	1	01/22/2018 23:46	WG1065171
Chloromethane	U		0.000375	0.00250	1	01/22/2018 23:46	WG1065171
2-Chlorotoluene	U		0.000301	0.00100	1	01/22/2018 23:46	WG1065171
4-Chlorotoluene	U		0.000240	0.00100	1	01/22/2018 23:46	WG1065171
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500	1	01/22/2018 23:46	WG1065171
1,2-Dibromoethane	U		0.000343	0.00100	1	01/22/2018 23:46	WG1065171
Dibromomethane	U		0.000382	0.00100	1	01/22/2018 23:46	WG1065171
1,2-Dichlorobenzene	U		0.000305	0.00100	1	01/22/2018 23:46	WG1065171
1,3-Dichlorobenzene	U		0.000239	0.00100	1	01/22/2018 23:46	WG1065171
1,4-Dichlorobenzene	U		0.000226	0.00100	1	01/22/2018 23:46	WG1065171
Dichlorodifluoromethane	U		0.000713	0.00500	1	01/22/2018 23:46	WG1065171
1,1-Dichloroethane	U		0.000199	0.00100	1	01/22/2018 23:46	WG1065171
1,2-Dichloroethane	U		0.000265	0.00100	1	01/22/2018 23:46	WG1065171
1,1-Dichloroethene	U		0.000303	0.00100	1	01/22/2018 23:46	WG1065171
cis-1,2-Dichloroethene	U		0.000235	0.00100	1	01/22/2018 23:46	WG1065171
trans-1,2-Dichloroethene	U		0.000264	0.00100	1	01/22/2018 23:46	WG1065171
1,2-Dichloropropane	U		0.000358	0.00100	1	01/22/2018 23:46	WG1065171
1,1-Dichloropropene	U		0.000317	0.00100	1	01/22/2018 23:46	WG1065171
1,3-Dichloropropane	U		0.000207	0.00100	1	01/22/2018 23:46	WG1065171



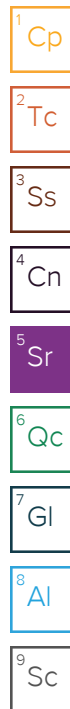


Collected date/time: 01/19/18 12:05

L964604

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000262	0.00100	1	01/22/2018 23:46	WG1065171
trans-1,3-Dichloropropene	U		0.000267	0.00100	1	01/22/2018 23:46	WG1065171
2,2-Dichloropropane	U		0.000279	0.00100	1	01/22/2018 23:46	WG1065171
Di-isopropyl ether	U		0.000248	0.00100	1	01/22/2018 23:46	WG1065171
Ethylbenzene	U		0.000297	0.00100	1	01/22/2018 23:46	WG1065171
Hexachloro-1,3-butadiene	U		0.000342	0.00100	1	01/22/2018 23:46	WG1065171
Isopropylbenzene	U		0.000243	0.00100	1	01/22/2018 23:46	WG1065171
p-Isopropyltoluene	U		0.000204	0.00100	1	01/22/2018 23:46	WG1065171
2-Butanone (MEK)	U		0.00468	0.0100	1	01/22/2018 23:46	WG1065171
Methylene Chloride	U		0.00100	0.00500	1	01/22/2018 23:46	WG1065171
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100	1	01/22/2018 23:46	WG1065171
Methyl tert-butyl ether	U		0.000212	0.00100	1	01/22/2018 23:46	WG1065171
Naphthalene	U		0.00100	0.00500	1	01/22/2018 23:46	WG1065171
n-Propylbenzene	U		0.000206	0.00100	1	01/22/2018 23:46	WG1065171
Styrene	U		0.000234	0.00100	1	01/22/2018 23:46	WG1065171
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100	1	01/22/2018 23:46	WG1065171
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100	1	01/22/2018 23:46	WG1065171
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100	1	01/22/2018 23:46	WG1065171
Tetrachloroethene	U		0.000276	0.00100	1	01/22/2018 23:46	WG1065171
Toluene	U		0.000434	0.00500	1	01/22/2018 23:46	WG1065171
1,2,3-Trichlorobenzene	U		0.000306	0.00100	1	01/22/2018 23:46	WG1065171
1,2,4-Trichlorobenzene	U		0.000388	0.00100	1	01/22/2018 23:46	WG1065171
1,1,1-Trichloroethane	U		0.000286	0.00100	1	01/22/2018 23:46	WG1065171
1,1,2-Trichloroethane	U		0.000277	0.00100	1	01/22/2018 23:46	WG1065171
Trichloroethene	U		0.000279	0.00100	1	01/22/2018 23:46	WG1065171
Trichlorofluoromethane	U		0.000382	0.00500	1	01/22/2018 23:46	WG1065171
1,2,3-Trichloropropane	U		0.000741	0.00250	1	01/22/2018 23:46	WG1065171
1,2,4-Trimethylbenzene	U		0.000211	0.00100	1	01/22/2018 23:46	WG1065171
1,2,3-Trimethylbenzene	U		0.000287	0.00100	1	01/22/2018 23:46	WG1065171
Vinyl chloride	U		0.000291	0.00100	1	01/22/2018 23:46	WG1065171
1,3,5-Trimethylbenzene	U		0.000266	0.00100	1	01/22/2018 23:46	WG1065171
Xylenes, Total	U		0.000698	0.00300	1	01/22/2018 23:46	WG1065171
(S) Toluene-d8	97.4			80.0-120		01/22/2018 23:46	WG1065171
(S) Dibromofluoromethane	101			74.0-131		01/22/2018 23:46	WG1065171
(S) 4-Bromofluorobenzene	97.6			64.0-132		01/22/2018 23:46	WG1065171



Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Acenaphthene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Acenaphthylene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Benzo(a)anthracene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Benzo(a)pyrene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Benzo(b)fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Benzo(g,h,i)perylene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Benzo(k)fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Chrysene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Dibenz(a,h)anthracene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Fluoranthene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Fluorene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Naphthalene	U		0.00200	0.0200	1	01/23/2018 18:54	WG1064936
Phenanthrene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
Pyrene	U		0.000600	0.00600	1	01/23/2018 18:54	WG1064936
1-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 18:54	WG1064936



Collected date/time: 01/19/18 12:05

L964604

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
2-Methylnaphthalene	U		0.00200	0.0200	1	01/23/2018 18:54	WG1064936
2-Chloronaphthalene	U		0.00200	0.0200	1	01/23/2018 18:54	WG1064936
(S) Nitrobenzene-d5	73.1			14.0-149		01/23/2018 18:54	WG1064936
(S) 2-Fluorobiphenyl	79.2			34.0-125		01/23/2018 18:54	WG1064936
(S) p-Terphenyl-d14	74.8			23.0-120		01/23/2018 18:54	WG1064936

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Mercury by Method 7470A

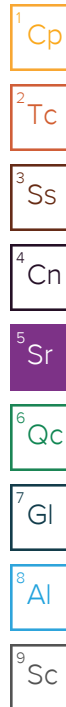
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	0.0514	J	0.0490	0.200	1	01/22/2018 17:10	WG1064955

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic,Dissolved	U		6.50	10.0	1	01/22/2018 03:15	WG1064590
Barium,Dissolved	24.7		1.70	5.00	1	01/22/2018 03:15	WG1064590
Cadmium,Dissolved	U		0.700	2.00	1	01/22/2018 03:15	WG1064590
Chromium,Dissolved	U		1.40	10.0	1	01/22/2018 03:15	WG1064590
Lead,Dissolved	U		1.90	5.00	1	01/22/2018 03:15	WG1064590
Selenium,Dissolved	U		7.40	10.0	1	01/22/2018 03:15	WG1064590
Silver,Dissolved	U		2.80	5.00	1	01/22/2018 03:15	WG1064590

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/22/2018 15:35	WG1065128
Acrolein	U	J3	8.87	50.0	1	01/22/2018 15:35	WG1065128
Acrylonitrile	U		1.87	10.0	1	01/22/2018 15:35	WG1065128
Benzene	U		0.331	1.00	1	01/22/2018 15:35	WG1065128
Bromobenzene	U		0.352	1.00	1	01/22/2018 15:35	WG1065128
Bromodichloromethane	U		0.380	1.00	1	01/22/2018 15:35	WG1065128
Bromoform	U		0.469	1.00	1	01/22/2018 15:35	WG1065128
Bromomethane	U		0.866	5.00	1	01/22/2018 15:35	WG1065128
n-Butylbenzene	U		0.361	1.00	1	01/22/2018 15:35	WG1065128
sec-Butylbenzene	U		0.365	1.00	1	01/22/2018 15:35	WG1065128
tert-Butylbenzene	U		0.399	1.00	1	01/22/2018 15:35	WG1065128
Carbon tetrachloride	U		0.379	1.00	1	01/22/2018 15:35	WG1065128
Chlorobenzene	U		0.348	1.00	1	01/22/2018 15:35	WG1065128
Chlorodibromomethane	U		0.327	1.00	1	01/22/2018 15:35	WG1065128
Chloroethane	U		0.453	5.00	1	01/22/2018 15:35	WG1065128
Chloroform	U		0.324	5.00	1	01/22/2018 15:35	WG1065128
Chloromethane	U		0.276	2.50	1	01/22/2018 15:35	WG1065128
2-Chlorotoluene	U		0.375	1.00	1	01/22/2018 15:35	WG1065128
4-Chlorotoluene	U		0.351	1.00	1	01/22/2018 15:35	WG1065128
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/22/2018 15:35	WG1065128
1,2-Dibromoethane	U		0.381	1.00	1	01/22/2018 15:35	WG1065128
Dibromomethane	U		0.346	1.00	1	01/22/2018 15:35	WG1065128
1,2-Dichlorobenzene	U		0.349	1.00	1	01/22/2018 15:35	WG1065128
1,3-Dichlorobenzene	U		0.220	1.00	1	01/22/2018 15:35	WG1065128
1,4-Dichlorobenzene	U		0.274	1.00	1	01/22/2018 15:35	WG1065128
Dichlorodifluoromethane	1.51	J	0.551	5.00	1	01/22/2018 15:35	WG1065128
1,1-Dichloroethane	U		0.259	1.00	1	01/22/2018 15:35	WG1065128
1,2-Dichloroethane	U		0.361	1.00	1	01/22/2018 15:35	WG1065128
1,1-Dichloroethene	U		0.398	1.00	1	01/22/2018 15:35	WG1065128
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/22/2018 15:35	WG1065128
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/22/2018 15:35	WG1065128
1,2-Dichloropropane	U		0.306	1.00	1	01/22/2018 15:35	WG1065128
1,1-Dichloropropene	U		0.352	1.00	1	01/22/2018 15:35	WG1065128
1,3-Dichloropropane	U		0.366	1.00	1	01/22/2018 15:35	WG1065128
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/22/2018 15:35	WG1065128
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/22/2018 15:35	WG1065128
2,2-Dichloropropane	U		0.321	1.00	1	01/22/2018 15:35	WG1065128
Di-isopropyl ether	U		0.320	1.00	1	01/22/2018 15:35	WG1065128
Ethylbenzene	U		0.384	1.00	1	01/22/2018 15:35	WG1065128





Collected date/time: 01/19/18 09:10

L964604

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/22/2018 15:35	WG1065128
Isopropylbenzene	U		0.326	1.00	1	01/22/2018 15:35	WG1065128
p-Isopropyltoluene	U		0.350	1.00	1	01/22/2018 15:35	WG1065128
2-Butanone (MEK)	U		3.93	10.0	1	01/22/2018 15:35	WG1065128
Methylene Chloride	U		1.00	5.00	1	01/22/2018 15:35	WG1065128
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/22/2018 15:35	WG1065128
Methyl tert-butyl ether	U		0.367	1.00	1	01/22/2018 15:35	WG1065128
Naphthalene	U		1.00	5.00	1	01/22/2018 15:35	WG1065128
n-Propylbenzene	U		0.349	1.00	1	01/22/2018 15:35	WG1065128
Styrene	U		0.307	1.00	1	01/22/2018 15:35	WG1065128
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/22/2018 15:35	WG1065128
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/22/2018 15:35	WG1065128
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/22/2018 15:35	WG1065128
Tetrachloroethene	U		0.372	1.00	1	01/22/2018 15:35	WG1065128
Toluene	U		0.412	1.00	1	01/22/2018 15:35	WG1065128
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/22/2018 15:35	WG1065128
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/22/2018 15:35	WG1065128
1,1,1-Trichloroethane	U		0.319	1.00	1	01/22/2018 15:35	WG1065128
1,1,2-Trichloroethane	U		0.383	1.00	1	01/22/2018 15:35	WG1065128
Trichloroethene	U		0.398	1.00	1	01/22/2018 15:35	WG1065128
Trichlorofluoromethane	U		1.20	5.00	1	01/22/2018 15:35	WG1065128
1,2,3-Trichloropropane	U		0.807	2.50	1	01/22/2018 15:35	WG1065128
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/22/2018 15:35	WG1065128
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/22/2018 15:35	WG1065128
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/22/2018 15:35	WG1065128
Vinyl chloride	U		0.259	1.00	1	01/22/2018 15:35	WG1065128
Xylenes, Total	U		1.06	3.00	1	01/22/2018 15:35	WG1065128
(S) Toluene-d8	101			80.0-120		01/22/2018 15:35	WG1065128
(S) Dibromofluoromethane	103			76.0-123		01/22/2018 15:35	WG1065128
(S) 4-Bromofluorobenzene	102			80.0-120		01/22/2018 15:35	WG1065128

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	01/23/2018 18:43	WG1064934
Acenaphthene	0.0164	J	0.0100	0.0500	1	01/23/2018 18:43	WG1064934
Acenaphthylene	U		0.0120	0.0500	1	01/23/2018 18:43	WG1064934
Benzo(a)anthracene	U		0.00410	0.0500	1	01/23/2018 18:43	WG1064934
Benzo(a)pyrene	U		0.0116	0.0500	1	01/23/2018 18:43	WG1064934
Benzo(b)fluoranthene	0.00424	B J	0.00212	0.0500	1	01/23/2018 18:43	WG1064934
Benzo(g,h,i)perylene	0.00391	B J	0.00227	0.0500	1	01/23/2018 18:43	WG1064934
Benzo(k)fluoranthene	U		0.0136	0.0500	1	01/23/2018 18:43	WG1064934
Chrysene	U		0.0108	0.0500	1	01/23/2018 18:43	WG1064934
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	01/23/2018 18:43	WG1064934
Fluoranthene	U		0.0157	0.0500	1	01/23/2018 18:43	WG1064934
Fluorene	0.0306	J	0.00850	0.0500	1	01/23/2018 18:43	WG1064934
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	01/23/2018 18:43	WG1064934
Naphthalene	0.103	B J	0.0198	0.250	1	01/23/2018 18:43	WG1064934
Phenanthrene	0.0562		0.00820	0.0500	1	01/23/2018 18:43	WG1064934
Pyrene	U		0.0117	0.0500	1	01/23/2018 18:43	WG1064934
1-Methylnaphthalene	0.0285	J	0.00821	0.250	1	01/23/2018 18:43	WG1064934
2-Methylnaphthalene	0.0373	J	0.00902	0.250	1	01/23/2018 18:43	WG1064934
2-Chloronaphthalene	U		0.00647	0.250	1	01/23/2018 18:43	WG1064934
(S) Nitrobenzene-d5	93.0			31.0-160		01/23/2018 18:43	WG1064934
(S) 2-Fluorobiphenyl	105			48.0-148		01/23/2018 18:43	WG1064934
(S) p-Terphenyl-d14	103			37.0-146		01/23/2018 18:43	WG1064934



Mercury by Method 7470A

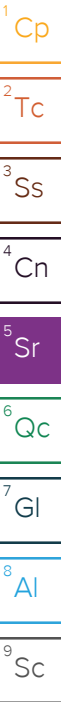
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0490	0.200	1	01/22/2018 17:12	WG1064955

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic,Dissolved	U		6.50	10.0	1	01/22/2018 03:18	WG1064590
Barium,Dissolved	85.6		1.70	5.00	1	01/22/2018 03:18	WG1064590
Cadmium,Dissolved	U		0.700	2.00	1	01/22/2018 03:18	WG1064590
Chromium,Dissolved	U		1.40	10.0	1	01/22/2018 03:18	WG1064590
Lead,Dissolved	U		1.90	5.00	1	01/22/2018 03:18	WG1064590
Selenium,Dissolved	U		7.40	10.0	1	01/22/2018 03:18	WG1064590
Silver,Dissolved	U		2.80	5.00	1	01/22/2018 03:18	WG1064590

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	01/22/2018 15:52	WG1065128
Acrolein	U	J3	8.87	50.0	1	01/22/2018 15:52	WG1065128
Acrylonitrile	U		1.87	10.0	1	01/22/2018 15:52	WG1065128
Benzene	U		0.331	1.00	1	01/22/2018 15:52	WG1065128
Bromobenzene	U		0.352	1.00	1	01/22/2018 15:52	WG1065128
Bromodichloromethane	U		0.380	1.00	1	01/22/2018 15:52	WG1065128
Bromoform	U		0.469	1.00	1	01/22/2018 15:52	WG1065128
Bromomethane	U		0.866	5.00	1	01/22/2018 15:52	WG1065128
n-Butylbenzene	U		0.361	1.00	1	01/22/2018 15:52	WG1065128
sec-Butylbenzene	U		0.365	1.00	1	01/22/2018 15:52	WG1065128
tert-Butylbenzene	U		0.399	1.00	1	01/22/2018 15:52	WG1065128
Carbon tetrachloride	U		0.379	1.00	1	01/22/2018 15:52	WG1065128
Chlorobenzene	U		0.348	1.00	1	01/22/2018 15:52	WG1065128
Chlorodibromomethane	U		0.327	1.00	1	01/22/2018 15:52	WG1065128
Chloroethane	U		0.453	5.00	1	01/22/2018 15:52	WG1065128
Chloroform	U		0.324	5.00	1	01/22/2018 15:52	WG1065128
Chloromethane	U		0.276	2.50	1	01/22/2018 15:52	WG1065128
2-Chlorotoluene	U		0.375	1.00	1	01/22/2018 15:52	WG1065128
4-Chlorotoluene	U		0.351	1.00	1	01/22/2018 15:52	WG1065128
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	01/22/2018 15:52	WG1065128
1,2-Dibromoethane	U		0.381	1.00	1	01/22/2018 15:52	WG1065128
Dibromomethane	U		0.346	1.00	1	01/22/2018 15:52	WG1065128
1,2-Dichlorobenzene	U		0.349	1.00	1	01/22/2018 15:52	WG1065128
1,3-Dichlorobenzene	U		0.220	1.00	1	01/22/2018 15:52	WG1065128
1,4-Dichlorobenzene	U		0.274	1.00	1	01/22/2018 15:52	WG1065128
Dichlorodifluoromethane	0.749	J	0.551	5.00	1	01/22/2018 15:52	WG1065128
1,1-Dichloroethane	U		0.259	1.00	1	01/22/2018 15:52	WG1065128
1,2-Dichloroethane	U		0.361	1.00	1	01/22/2018 15:52	WG1065128
1,1-Dichloroethene	U		0.398	1.00	1	01/22/2018 15:52	WG1065128
cis-1,2-Dichloroethene	U		0.260	1.00	1	01/22/2018 15:52	WG1065128
trans-1,2-Dichloroethene	U		0.396	1.00	1	01/22/2018 15:52	WG1065128
1,2-Dichloropropane	U		0.306	1.00	1	01/22/2018 15:52	WG1065128
1,1-Dichloropropene	U		0.352	1.00	1	01/22/2018 15:52	WG1065128
1,3-Dichloropropane	U		0.366	1.00	1	01/22/2018 15:52	WG1065128
cis-1,3-Dichloropropene	U		0.418	1.00	1	01/22/2018 15:52	WG1065128
trans-1,3-Dichloropropene	U		0.419	1.00	1	01/22/2018 15:52	WG1065128
2,2-Dichloropropane	U		0.321	1.00	1	01/22/2018 15:52	WG1065128
Di-isopropyl ether	U		0.320	1.00	1	01/22/2018 15:52	WG1065128
Ethylbenzene	U		0.384	1.00	1	01/22/2018 15:52	WG1065128





Collected date/time: 01/19/18 15:15

L964604

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	U		0.256	1.00	1	01/22/2018 15:52	WG1065128
Isopropylbenzene	U		0.326	1.00	1	01/22/2018 15:52	WG1065128
p-Isopropyltoluene	U		0.350	1.00	1	01/22/2018 15:52	WG1065128
2-Butanone (MEK)	U		3.93	10.0	1	01/22/2018 15:52	WG1065128
Methylene Chloride	U		1.00	5.00	1	01/22/2018 15:52	WG1065128
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	01/22/2018 15:52	WG1065128
Methyl tert-butyl ether	U		0.367	1.00	1	01/22/2018 15:52	WG1065128
Naphthalene	U		1.00	5.00	1	01/22/2018 15:52	WG1065128
n-Propylbenzene	U		0.349	1.00	1	01/22/2018 15:52	WG1065128
Styrene	U		0.307	1.00	1	01/22/2018 15:52	WG1065128
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	01/22/2018 15:52	WG1065128
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	01/22/2018 15:52	WG1065128
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	01/22/2018 15:52	WG1065128
Tetrachloroethene	U		0.372	1.00	1	01/22/2018 15:52	WG1065128
Toluene	U		0.412	1.00	1	01/22/2018 15:52	WG1065128
1,2,3-Trichlorobenzene	U		0.230	1.00	1	01/22/2018 15:52	WG1065128
1,2,4-Trichlorobenzene	U		0.355	1.00	1	01/22/2018 15:52	WG1065128
1,1,1-Trichloroethane	U		0.319	1.00	1	01/22/2018 15:52	WG1065128
1,1,2-Trichloroethane	U		0.383	1.00	1	01/22/2018 15:52	WG1065128
Trichloroethene	U		0.398	1.00	1	01/22/2018 15:52	WG1065128
Trichlorofluoromethane	U		1.20	5.00	1	01/22/2018 15:52	WG1065128
1,2,3-Trichloropropane	U		0.807	2.50	1	01/22/2018 15:52	WG1065128
1,2,4-Trimethylbenzene	U		0.373	1.00	1	01/22/2018 15:52	WG1065128
1,2,3-Trimethylbenzene	U		0.321	1.00	1	01/22/2018 15:52	WG1065128
1,3,5-Trimethylbenzene	U		0.387	1.00	1	01/22/2018 15:52	WG1065128
Vinyl chloride	U		0.259	1.00	1	01/22/2018 15:52	WG1065128
Xylenes, Total	U		1.06	3.00	1	01/22/2018 15:52	WG1065128
(S) Toluene-d8	103			80.0-120		01/22/2018 15:52	WG1065128
(S) Dibromofluoromethane	103			76.0-123		01/22/2018 15:52	WG1065128
(S) 4-Bromofluorobenzene	101			80.0-120		01/22/2018 15:52	WG1065128

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	01/23/2018 19:08	WG1064934
Acenaphthene	U		0.0100	0.0500	1	01/23/2018 19:08	WG1064934
Acenaphthylene	U		0.0120	0.0500	1	01/23/2018 19:08	WG1064934
Benzo(a)anthracene	U		0.00410	0.0500	1	01/23/2018 19:08	WG1064934
Benzo(a)pyrene	U		0.0116	0.0500	1	01/23/2018 19:08	WG1064934
Benzo(b)fluoranthene	0.00255	B J	0.00212	0.0500	1	01/23/2018 19:08	WG1064934
Benzo(g,h,i)perylene	U		0.00227	0.0500	1	01/23/2018 19:08	WG1064934
Benzo(k)fluoranthene	U		0.0136	0.0500	1	01/23/2018 19:08	WG1064934
Chrysene	U		0.0108	0.0500	1	01/23/2018 19:08	WG1064934
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	01/23/2018 19:08	WG1064934
Fluoranthene	U		0.0157	0.0500	1	01/23/2018 19:08	WG1064934
Fluorene	U		0.00850	0.0500	1	01/23/2018 19:08	WG1064934
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	01/23/2018 19:08	WG1064934
Naphthalene	0.0816	B J	0.0198	0.250	1	01/23/2018 19:08	WG1064934
Phenanthrene	0.0280	I J	0.00820	0.0500	1	01/23/2018 19:08	WG1064934
Pyrene	U		0.0117	0.0500	1	01/23/2018 19:08	WG1064934
1-Methylnaphthalene	0.00872	I J	0.00821	0.250	1	01/23/2018 19:08	WG1064934
2-Methylnaphthalene	0.0109	I J	0.00902	0.250	1	01/23/2018 19:08	WG1064934
2-Chloronaphthalene	U		0.00647	0.250	1	01/23/2018 19:08	WG1064934
(S) Nitrobenzene-d5	94.3			31.0-160		01/23/2018 19:08	WG1064934
(S) 2-Fluorobiphenyl	107			48.0-148		01/23/2018 19:08	WG1064934
(S) p-Terphenyl-d14	105			37.0-146		01/23/2018 19:08	WG1064934

Method Blank (MB)

(MB) R3281893-1 01/25/18 08:04

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0			

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L964573-21 Original Sample (OS) • Duplicate (DUP)

(OS) L964573-21 01/25/18 08:04 • (DUP) R3281893-3 01/25/18 08:04

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	75.1	75.2	1	0		5

Laboratory Control Sample (LCS)

(LCS) R3281893-2 01/25/18 08:04

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85-115	



Method Blank (MB)

(MB) R3281892-1 01/25/18 07:50

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0			

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

L964573-19 Original Sample (OS) • Duplicate (DUP)

(OS) L964573-19 01/25/18 07:50 • (DUP) R3281892-3 01/25/18 07:50

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	82.9	83.3	1	0		5

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R3281892-2 01/25/18 07:50

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85-115	

⁹Sc



Method Blank (MB)

(MB) R3280979-1 01/22/18 16:36

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury,Dissolved	U		0.0490	0.200

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280979-4 01/22/18 19:28 • (LCSD) R3280979-5 01/22/18 19:30

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	3.00	3.35	3.35	112	112	80-120			0.218	20

L964587-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L964587-02 01/22/18 16:44 • (MS) R3280979-2 01/22/18 16:47 • (MSD) R3280979-3 01/22/18 16:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	3.00	U	3.35	3.15	112	105	1	75-125			6.12	20



Method Blank (MB)

(MB) R3281329-1 01/23/18 16:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	0.00413	⬇	0.0028	0.0200

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281329-2 01/23/18 16:59 • (LCSD) R3281329-3 01/23/18 17:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.294	0.295	98	98.2	80-120			0.211	20

L964604-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L964604-01 01/23/18 17:04 • (MS) R3281329-4 01/23/18 17:07 • (MSD) R3281329-5 01/23/18 17:09

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.300	0.00915	0.340	0.345	110	112	1	75-125			1.37	20



Method Blank (MB)

(MB) R3280756-1 01/22/18 02:31

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic,Dissolved	U		6.50	10.0
Barium,Dissolved	U		1.70	5.00
Cadmium,Dissolved	U		0.700	2.00
Chromium,Dissolved	1.49	J	1.40	10.0
Lead,Dissolved	5.72		1.90	5.00
Selenium,Dissolved	U		7.40	10.0
Silver,Dissolved	U		2.80	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280756-2 01/22/18 02:33 • (LCSD) R3280756-3 01/22/18 02:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	995	1010	99.5	101	80-120			1.16	20
Barium,Dissolved	1000	1040	1050	104	105	80-120			0.94	20
Cadmium,Dissolved	1000	1010	1020	101	102	80-120			1.17	20
Chromium,Dissolved	1000	1030	1040	103	104	80-120			0.686	20
Lead,Dissolved	1000	1010	1020	101	102	80-120			0.801	20
Selenium,Dissolved	1000	985	1010	98.5	101	80-120			2.15	20
Silver,Dissolved	200	197	199	98.3	99.6	80-120			1.24	20

L963861-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L963861-02 01/22/18 02:38 • (MS) R3280756-5 01/22/18 02:44 • (MSD) R3280756-6 01/22/18 02:46

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	10.8	1040	1040	103	103	1	75-125			0.669	20
Barium,Dissolved	1000	49.8	1080	1100	103	105	1	75-125			1.25	20
Cadmium,Dissolved	1000	ND	1030	1040	103	104	1	75-125			1.25	20
Chromium,Dissolved	1000	ND	1030	1050	103	105	1	75-125			1.19	20
Lead,Dissolved	1000	ND	1020	1040	102	104	1	75-125			1.61	20
Selenium,Dissolved	1000	ND	1020	1040	102	104	1	75-125			2.07	20
Silver,Dissolved	200	ND	201	205	100	103	1	75-125			2.32	20



Method Blank (MB)

(MB) R3282309-1 01/28/18 22:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	0.229	J	0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3282309-2 01/28/18 22:50 • (LCSD) R3282309-3 01/28/18 22:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	101	99.6	101	99.6	80-120			1.28	20
Barium	100	107	106	107	106	80-120			0.953	20
Cadmium	100	101	100	101	100	80-120			0.784	20
Chromium	100	103	103	103	103	80-120			0.0585	20
Lead	100	102	101	102	101	80-120			0.64	20
Selenium	100	102	99.6	102	99.6	80-120			2.2	20
Silver	20.0	18.8	18.6	94.1	92.8	80-120			1.42	20

L965494-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L965494-03 01/28/18 22:56 • (MS) R3282309-6 01/28/18 23:06 • (MSD) R3282309-7 01/28/18 23:09

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	ND	99.8	97.4	99	96.6	1	75-125			2.42	20
Barium	100	49.5	147	152	98	102	1	75-125			2.93	20
Cadmium	100	ND	98.9	97.2	98.8	97.1	1	75-125			1.8	20
Chromium	100	10.2	109	109	99.1	98.9	1	75-125			0.155	20
Lead	100	52.8	150	165	96.8	112	1	75-125			9.79	20
Selenium	100	ND	97.7	96.4	97.7	96.4	1	75-125			1.35	20
Silver	20.0	ND	18.2	18.0	91.2	90	1	75-125			1.36	20



Method Blank (MB)

(MB) R3280954-3 01/22/18 12:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3280954-3 01/22/18 12:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,3-Trimethylbenzene	U		0.321	1.00
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	98.6			76.0-123
(S) 4-Bromofluorobenzene	101			80.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280954-1 01/22/18 11:42 • (LCSD) R3280954-2 01/22/18 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	124	128	99.5	103	10.0-160			3.25	23
Acrolein	125	116	142	93.0	114	10.0-160		J3	20.1	20
Acrylonitrile	125	128	117	102	93.5	60.0-142			8.78	20
Benzene	25.0	24.8	24.6	99.4	98.4	69.0-123			0.927	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280954-1 01/22/18 11:42 • (LCSD) R3280954-2 01/22/18 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromobenzene	25.0	24.9	25.3	99.5	101	79.0-120			1.83	20
Bromodichloromethane	25.0	25.1	25.0	101	99.8	76.0-120			0.772	20
Bromoform	25.0	26.2	26.4	105	106	67.0-132			0.943	20
Bromomethane	25.0	25.0	25.4	99.8	101	18.0-160			1.58	20
n-Butylbenzene	25.0	24.8	25.8	99.1	103	72.0-126			3.84	20
sec-Butylbenzene	25.0	25.7	26.2	103	105	74.0-121			1.84	20
tert-Butylbenzene	25.0	25.8	26.0	103	104	75.0-122			0.898	20
Carbon tetrachloride	25.0	26.2	25.5	105	102	63.0-122			2.48	20
Chlorobenzene	25.0	26.1	26.0	104	104	79.0-121			0.315	20
Chlorodibromomethane	25.0	25.7	25.4	103	102	75.0-125			1.05	20
Chloroethane	25.0	26.3	26.4	105	105	47.0-152			0.249	20
Chloroform	25.0	24.9	25.0	99.7	99.9	72.0-121			0.210	20
Chloromethane	25.0	24.9	25.4	99.6	102	48.0-139			2.06	20
2-Chlorotoluene	25.0	25.2	25.6	101	103	74.0-122			1.68	20
4-Chlorotoluene	25.0	25.5	25.7	102	103	79.0-120			0.579	20
1,2-Dibromo-3-Chloropropane	25.0	24.5	25.4	98.1	102	64.0-127			3.51	20
1,2-Dibromoethane	25.0	25.7	25.4	103	101	77.0-123			1.43	20
Dibromomethane	25.0	24.6	24.7	98.6	98.8	78.0-120			0.265	20
1,2-Dichlorobenzene	25.0	25.3	25.6	101	102	80.0-120			1.02	20
1,3-Dichlorobenzene	25.0	24.9	25.6	99.6	102	72.0-123			2.79	20
1,4-Dichlorobenzene	25.0	24.2	24.7	96.7	98.9	77.0-120			2.16	20
Dichlorodifluoromethane	25.0	25.4	26.5	102	106	49.0-155			4.29	20
1,1-Dichloroethane	25.0	25.2	25.3	101	101	70.0-126			0.470	20
1,2-Dichloroethane	25.0	24.8	24.9	99.0	99.5	67.0-126			0.442	20
1,1-Dichloroethene	25.0	26.2	26.3	105	105	64.0-129			0.561	20
cis-1,2-Dichloroethene	25.0	23.9	24.3	95.5	97.3	73.0-120			1.81	20
trans-1,2-Dichloroethene	25.0	25.7	25.8	103	103	71.0-121			0.431	20
1,2-Dichloropropane	25.0	24.2	24.1	96.7	96.2	75.0-125			0.445	20
1,1-Dichloropropene	25.0	26.2	26.1	105	104	71.0-129			0.445	20
1,3-Dichloropropane	25.0	25.2	25.1	101	100	80.0-121			0.374	20
cis-1,3-Dichloropropene	25.0	25.9	25.8	104	103	79.0-123			0.486	20
trans-1,3-Dichloropropene	25.0	25.7	25.4	103	102	74.0-127			0.971	20
2,2-Dichloropropane	25.0	26.0	25.8	104	103	60.0-125			0.733	20
Di-isopropyl ether	25.0	25.2	24.8	101	99.1	59.0-133			1.69	20
Ethylbenzene	25.0	26.5	26.1	106	104	77.0-120			1.57	20
Hexachloro-1,3-butadiene	25.0	24.4	25.2	97.4	101	64.0-131			3.50	20
Isopropylbenzene	25.0	26.2	26.4	105	106	75.0-120			0.892	20
p-Isopropyltoluene	25.0	26.0	26.6	104	106	74.0-126			2.35	20
2-Butanone (MEK)	125	145	147	116	117	37.0-158			1.36	20
Methylene Chloride	25.0	24.1	24.5	96.3	98.1	66.0-121			1.81	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280954-1 01/22/18 11:42 • (LCSD) R3280954-2 01/22/18 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	125	131	129	105	104	59.0-143			1.38	20
Methyl tert-butyl ether	25.0	24.4	23.5	97.7	93.9	64.0-123			3.93	20
Naphthalene	25.0	23.6	24.4	94.6	97.7	62.0-128			3.23	20
n-Propylbenzene	25.0	26.0	26.3	104	105	79.0-120			0.878	20
Styrene	25.0	26.6	26.8	106	107	78.0-124			0.763	20
1,1,1,2-Tetrachloroethane	25.0	25.8	25.5	103	102	75.0-122			1.09	20
1,1,2,2-Tetrachloroethane	25.0	24.5	24.5	97.9	98.0	71.0-122			0.170	20
Tetrachloroethene	25.0	25.8	25.8	103	103	70.0-127			0.0563	20
Toluene	25.0	25.1	24.8	100	99.3	77.0-120			1.08	20
1,1,2-Trichlorotrifluoroethane	25.0	26.5	26.8	106	107	61.0-136			0.993	20
1,2,3-Trichlorobenzene	25.0	23.9	25.6	95.6	102	61.0-133			6.81	20
1,2,4-Trichlorobenzene	25.0	22.0	23.7	88.1	94.8	69.0-129			7.34	20
1,1,1-Trichloroethane	25.0	26.1	25.7	105	103	68.0-122			1.54	20
1,1,2-Trichloroethane	25.0	24.5	24.5	98.1	98.1	78.0-120			0.00702	20
Trichloroethene	25.0	25.0	25.8	100	103	78.0-120			2.97	20
Trichlorofluoromethane	25.0	27.7	27.8	111	111	56.0-137			0.249	20
1,2,3-Trichloropropane	25.0	24.6	24.8	98.5	99.1	72.0-124			0.595	20
1,2,3-Trimethylbenzene	25.0	24.9	25.2	99.4	101	75.0-120			1.24	20
1,2,4-Trimethylbenzene	25.0	25.3	25.8	101	103	75.0-120			1.94	20
1,3,5-Trimethylbenzene	25.0	25.8	25.8	103	103	75.0-120			0.0799	20
Vinyl chloride	25.0	27.4	27.1	110	108	64.0-133			1.36	20
Xylenes, Total	75.0	77.7	77.7	104	104	77.0-120			0.000	20
(S) Toluene-d8				102	102	80.0-120				
(S) Dibromofluoromethane				99.8	97.6	76.0-123				
(S) 4-Bromofluorobenzene				102	102	80.0-120				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3281130-3 01/22/18 11:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100

1

Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

9

Sc



Method Blank (MB)

(MB) R3281130-3 01/22/18 11:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	99.4			80.0-120
(S) Dibromofluoromethane	97.3			74.0-131
(S) 4-Bromofluorobenzene	98.3			64.0-132

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281130-1 01/22/18 09:41 • (LCSD) R3281130-2 01/22/18 10:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.122	0.120	97.9	96.3	11.0-160			1.70	23
Acrylonitrile	0.125	0.125	0.121	99.9	96.7	61.0-143			3.33	20
Benzene	0.0250	0.0241	0.0243	96.2	97.0	71.0-124			0.840	20
Bromobenzene	0.0250	0.0243	0.0239	97.2	95.8	78.0-120			1.44	20
Bromodichloromethane	0.0250	0.0249	0.0243	99.7	97.0	75.0-120			2.68	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281130-1 01/22/18 09:41 • (LCSD) R3281130-2 01/22/18 10:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.0250	0.0267	0.0256	107	103	65.0-133			3.84	20
Bromomethane	0.0250	0.0258	0.0260	103	104	26.0-160			0.934	20
n-Butylbenzene	0.0250	0.0284	0.0281	114	112	73.0-126			1.29	20
sec-Butylbenzene	0.0250	0.0262	0.0259	105	104	75.0-121			1.22	20
tert-Butylbenzene	0.0250	0.0253	0.0256	101	102	74.0-122			1.42	20
Carbon tetrachloride	0.0250	0.0253	0.0259	101	104	66.0-123			2.49	20
Chlorobenzene	0.0250	0.0262	0.0258	105	103	79.0-121			1.37	20
Chlorodibromomethane	0.0250	0.0256	0.0250	102	100	74.0-128			2.33	20
Chloroethane	0.0250	0.0244	0.0253	97.7	101	51.0-147			3.58	20
Chloroform	0.0250	0.0252	0.0249	101	99.7	73.0-123			1.18	20
Chloromethane	0.0250	0.0237	0.0247	94.7	98.8	51.0-138			4.27	20
2-Chlorotoluene	0.0250	0.0254	0.0251	102	100	72.0-124			1.14	20
4-Chlorotoluene	0.0250	0.0260	0.0254	104	102	78.0-120			2.58	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0277	0.0255	111	102	65.0-126			8.38	20
1,2-Dibromoethane	0.0250	0.0250	0.0245	100	98.1	78.0-122			1.87	20
Dibromomethane	0.0250	0.0259	0.0261	104	104	79.0-120			0.585	20
1,2-Dichlorobenzene	0.0250	0.0258	0.0254	103	102	80.0-120			1.51	20
1,3-Dichlorobenzene	0.0250	0.0262	0.0258	105	103	72.0-123			1.80	20
1,4-Dichlorobenzene	0.0250	0.0246	0.0244	98.2	97.5	77.0-120			0.697	20
Dichlorodifluoromethane	0.0250	0.0252	0.0253	101	101	49.0-155			0.375	20
1,1-Dichloroethane	0.0250	0.0244	0.0249	97.5	99.7	70.0-128			2.21	20
1,2-Dichloroethane	0.0250	0.0245	0.0245	98.0	98.0	69.0-128			0.0154	20
1,1-Dichloroethene	0.0250	0.0236	0.0247	94.3	98.6	63.0-131			4.48	20
cis-1,2-Dichloroethene	0.0250	0.0245	0.0254	98.0	102	74.0-123			3.62	20
trans-1,2-Dichloroethene	0.0250	0.0247	0.0247	98.8	98.6	72.0-122			0.157	20
1,2-Dichloropropane	0.0250	0.0254	0.0259	102	103	75.0-126			1.74	20
1,1-Dichloropropene	0.0250	0.0249	0.0252	99.7	101	72.0-130			1.02	20
1,3-Dichloropropane	0.0250	0.0240	0.0235	96.0	94.1	80.0-121			2.04	20
cis-1,3-Dichloropropene	0.0250	0.0256	0.0255	103	102	80.0-125			0.356	20
trans-1,3-Dichloropropene	0.0250	0.0267	0.0260	107	104	75.0-129			2.80	20
2,2-Dichloropropane	0.0250	0.0309	0.0295	123	118	60.0-129			4.65	20
Di-isopropyl ether	0.0250	0.0240	0.0241	95.9	96.5	62.0-133			0.592	20
Ethylbenzene	0.0250	0.0261	0.0260	104	104	77.0-120			0.523	20
Hexachloro-1,3-butadiene	0.0250	0.0269	0.0276	107	110	68.0-128			2.67	20
Isopropylbenzene	0.0250	0.0248	0.0252	99.2	101	75.0-120			1.63	20
p-Isopropyltoluene	0.0250	0.0270	0.0268	108	107	74.0-125			0.680	20
2-Butanone (MEK)	0.125	0.129	0.123	103	98.4	37.0-159			4.90	20
Methylene Chloride	0.0250	0.0232	0.0235	93.0	94.0	67.0-123			1.09	20
4-Methyl-2-pentanone (MIBK)	0.125	0.128	0.122	103	97.7	60.0-144			4.86	20
Methyl tert-butyl ether	0.0250	0.0239	0.0236	95.7	94.3	66.0-125			1.50	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281130-1 01/22/18 09:41 • (LCSD) R3281130-2 01/22/18 10:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.0250	0.0246	0.0246	98.4	98.6	64.0-125			0.194	20
n-Propylbenzene	0.0250	0.0255	0.0254	102	102	78.0-120			0.539	20
Styrene	0.0250	0.0272	0.0260	109	104	78.0-124			4.63	20
1,1,1,2-Tetrachloroethane	0.0250	0.0270	0.0264	108	106	74.0-124			2.13	20
1,1,2,2-Tetrachloroethane	0.0250	0.0248	0.0240	99.3	96.0	73.0-120			3.37	20
Tetrachloroethene	0.0250	0.0269	0.0269	107	108	70.0-127			0.285	20
Toluene	0.0250	0.0241	0.0238	96.5	95.1	77.0-120			1.37	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0240	0.0240	96.1	96.1	64.0-135			0.0479	20
1,2,3-Trichlorobenzene	0.0250	0.0266	0.0266	106	107	68.0-126			0.0918	20
1,2,4-Trichlorobenzene	0.0250	0.0288	0.0292	115	117	70.0-127			1.33	20
1,1,1-Trichloroethane	0.0250	0.0254	0.0256	102	102	69.0-125			0.650	20
1,1,2-Trichloroethane	0.0250	0.0243	0.0240	97.0	96.0	78.0-120			1.05	20
Trichloroethene	0.0250	0.0253	0.0257	101	103	79.0-120			1.87	20
Trichlorofluoromethane	0.0250	0.0254	0.0258	102	103	59.0-136			1.54	20
1,2,3-Trichloropropane	0.0250	0.0255	0.0240	102	96.2	73.0-124			6.01	20
1,2,3-Trimethylbenzene	0.0250	0.0254	0.0254	101	101	76.0-120			0.00446	20
1,2,4-Trimethylbenzene	0.0250	0.0258	0.0257	103	103	75.0-120			0.617	20
1,3,5-Trimethylbenzene	0.0250	0.0255	0.0254	102	102	75.0-120			0.491	20
Vinyl chloride	0.0250	0.0265	0.0271	106	108	63.0-134			2.25	20
Xylenes, Total	0.0750	0.0787	0.0782	105	104	77.0-120			0.637	20
(S) Toluene-d8				99.3	99.3	80.0-120				
(S) Dibromofluoromethane				96.3	98.3	74.0-131				
(S) 4-Bromofluorobenzene				98.1	93.4	64.0-132				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L964604-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L964604-04 01/22/18 20:11 • (MS) R3281130-5 01/23/18 00:06 • (MSD) R3281130-6 01/23/18 00:26

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.125	U	0.0894	0.0857	71.5	68.6	1	10.0-160			4.25	36
Acrylonitrile	0.125	U	0.145	0.130	116	104	1	14.0-160			11.1	33
Benzene	0.0250	U	0.0238	0.0221	95.3	88.2	1	13.0-146			7.73	27
Bromobenzene	0.0250	U	0.0207	0.0190	82.8	76.1	1	10.0-149			8.41	33
Bromodichloromethane	0.0250	U	0.0230	0.0213	91.8	85.2	1	15.0-142			7.51	28
Bromoform	0.0250	U	0.0247	0.0225	99.0	90.0	1	10.0-147			9.48	31
Bromomethane	0.0250	U	0.0240	0.0221	96.0	88.4	1	10.0-160			8.31	32
n-Butylbenzene	0.0250	U	0.0217	0.0212	87.0	84.6	1	10.0-154			2.73	37
sec-Butylbenzene	0.0250	U	0.0227	0.0219	90.6	87.7	1	10.0-151			3.27	36
tert-Butylbenzene	0.0250	U	0.0232	0.0217	92.8	86.8	1	10.0-152			6.61	35

L964604-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L964604-04 01/22/18 20:11 • (MS) R3281130-5 01/23/18 00:06 • (MSD) R3281130-6 01/23/18 00:26

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.0250	U	0.0258	0.0244	103	97.6	1	13.0-140			5.62	30
Chlorobenzene	0.0250	U	0.0221	0.0212	88.4	84.9	1	10.0-149			4.04	31
Chlorodibromomethane	0.0250	U	0.0230	0.0214	92.1	85.7	1	12.0-147			7.26	29
Chloroethane	0.0250	U	0.0234	0.0216	93.8	86.5	1	10.0-159			8.08	33
Chloroform	0.0250	U	0.0250	0.0226	100	90.4	1	18.0-148			10.2	28
Chloromethane	0.0250	U	0.0232	0.0225	92.7	90.1	1	10.0-146			2.91	29
2-Chlorotoluene	0.0250	U	0.0211	0.0198	84.6	79.2	1	10.0-151			6.62	35
4-Chlorotoluene	0.0250	U	0.0202	0.0189	80.7	75.7	1	10.0-150			6.39	35
1,2-Dibromo-3-Chloropropane	0.0250	U	0.0325	0.0287	130	115	1	10.0-149			12.3	34
1,2-Dibromoethane	0.0250	U	0.0247	0.0225	98.6	89.9	1	14.0-145			9.30	28
Dibromomethane	0.0250	U	0.0264	0.0233	105	93.2	1	18.0-144			12.3	27
1,2-Dichlorobenzene	0.0250	U	0.0208	0.0188	83.2	75.3	1	10.0-153			9.95	34
1,3-Dichlorobenzene	0.0250	U	0.0196	0.0186	78.4	74.3	1	10.0-150			5.37	35
1,4-Dichlorobenzene	0.0250	U	0.0180	0.0173	72.1	69.2	1	10.0-148			4.16	34
Dichlorodifluoromethane	0.0250	U	0.0244	0.0246	97.6	98.4	1	10.0-160			0.759	30
1,1-Dichloroethane	0.0250	U	0.0251	0.0234	101	93.7	1	19.0-148			7.05	28
1,2-Dichloroethane	0.0250	U	0.0251	0.0227	100	90.7	1	17.0-147			9.98	27
1,1-Dichloroethene	0.0250	U	0.0240	0.0230	96.0	92.2	1	10.0-150			4.06	31
cis-1,2-Dichloroethene	0.0250	U	0.0249	0.0220	99.5	87.8	1	16.0-145			12.4	28
trans-1,2-Dichloroethene	0.0250	U	0.0241	0.0224	96.4	89.7	1	11.0-142			7.22	29
1,2-Dichloropropane	0.0250	U	0.0254	0.0233	102	93.0	1	17.0-148			8.74	28
1,1-Dichloropropene	0.0250	U	0.0239	0.0228	95.5	91.3	1	10.0-150			4.57	30
1,3-Dichloropropane	0.0250	U	0.0232	0.0222	92.8	88.7	1	16.0-148			4.49	27
cis-1,3-Dichloropropene	0.0250	U	0.0218	0.0204	87.1	81.7	1	13.0-150			6.37	28
trans-1,3-Dichloropropene	0.0250	U	0.0232	0.0216	92.8	86.4	1	10.0-152			7.23	29
2,2-Dichloropropane	0.0250	U	0.0306	0.0302	122	121	1	16.0-143			1.40	30
Di-isopropyl ether	0.0250	U	0.0248	0.0225	99.1	89.8	1	16.0-149			9.80	28
Ethylbenzene	0.0250	U	0.0221	0.0219	88.2	87.6	1	10.0-147			0.692	31
Hexachloro-1,3-butadiene	0.0250	U	0.0218	0.0222	87.4	88.9	1	10.0-154			1.68	40
Isopropylbenzene	0.0250	U	0.0221	0.0210	88.3	83.9	1	10.0-147			5.10	33
p-Isopropyltoluene	0.0250	U	0.0223	0.0219	89.2	87.5	1	10.0-156			1.97	37
2-Butanone (MEK)	0.125	U	0.112	0.104	89.4	82.9	1	10.0-160			7.47	33
Methylene Chloride	0.0250	U	0.0227	0.0209	90.7	83.8	1	16.0-139			7.91	29
4-Methyl-2-pentanone (MIBK)	0.125	U	0.156	0.147	125	118	1	12.0-160			5.66	32
Methyl tert-butyl ether	0.0250	U	0.0265	0.0235	106	94.0	1	21.0-145			12.1	29
Naphthalene	0.0250	U	0.0224	0.0213	89.4	85.0	1	10.0-153			5.05	36
n-Propylbenzene	0.0250	U	0.0212	0.0206	84.9	82.3	1	10.0-151			3.22	34
Styrene	0.0250	U	0.0222	0.0208	89.0	83.0	1	10.0-155			6.91	34
1,1,1,2-Tetrachloroethane	0.0250	U	0.0243	0.0226	97.3	90.4	1	10.0-147			7.32	30
1,1,2,2-Tetrachloroethane	0.0250	U	0.0276	0.0253	110	101	1	10.0-155			8.60	31

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



L964604-01,02,03,04,05,06

L964604-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L964604-04 01/22/18 20:11 • (MS) R3281130-5 01/23/18 00:06 • (MSD) R3281130-6 01/23/18 00:26

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.0250	U	0.0218	0.0224	87.4	89.5	1	10.0-144			2.38	32
Toluene	0.0250	U	0.0211	0.0201	84.2	80.5	1	10.0-144			4.54	28
1,1,2-Trichlorotrifluoroethane	0.0250	U	0.0235	0.0235	94.0	93.9	1	10.0-153			0.0752	33
1,2,3-Trichlorobenzene	0.0250	U	0.0180	0.0177	72.0	70.7	1	10.0-153			1.80	40
1,2,4-Trichlorobenzene	0.0250	U	0.0164	0.0162	65.8	64.8	1	10.0-156			1.54	40
1,1,1-Trichloroethane	0.0250	U	0.0264	0.0243	106	97.4	1	18.0-145			8.06	29
1,1,2-Trichloroethane	0.0250	U	0.0235	0.0221	93.9	88.4	1	12.0-151			6.10	28
Trichloroethene	0.0250	U	0.0235	0.0223	94.0	89.3	1	11.0-148			5.21	29
Trichlorofluoromethane	0.0250	U	0.0253	0.0244	101	97.5	1	10.0-157			3.55	34
1,2,3-Trichloropropane	0.0250	U	0.0289	0.0263	116	105	1	10.0-154			9.58	32
1,2,3-Trimethylbenzene	0.0250	U	0.0218	0.0203	87.3	81.0	1	10.0-150			7.44	33
1,2,4-Trimethylbenzene	0.0250	U	0.0212	0.0202	84.9	80.9	1	10.0-151			4.88	34
1,3,5-Trimethylbenzene	0.0250	U	0.0215	0.0205	86.1	81.9	1	10.0-150			5.00	33
Vinyl chloride	0.0250	U	0.0257	0.0234	103	93.8	1	10.0-150			9.21	29
Xylenes, Total	0.0750	U	0.0666	0.0649	88.8	86.5	1	10.0-150			2.59	31
(S) Toluene-d8					93.3	94.6		80.0-120				
(S) Dibromofluoromethane					102	102		74.0-131				
(S) 4-Bromofluorobenzene					93.9	94.5		64.0-132				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3281439-3 01/23/18 10:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0140	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.0120	0.0500
Benzo(a)anthracene	U		0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	0.00294	U	0.00212	0.0500
Benzo(g,h,i)perylene	0.00260	U	0.00227	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Fluoranthene	U		0.0157	0.0500
Fluorene	U		0.00850	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0720	U	0.0198	0.250
Phenanthrene	U		0.00820	0.0500
Pyrene	U		0.0117	0.0500
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
2-Chloronaphthalene	U		0.00647	0.250
(S) Nitrobenzene-d5	92.3			31.0-160
(S) 2-Fluorobiphenyl	106			48.0-148
(S) p-Terphenyl-d14	102			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281439-1 01/23/18 09:36 • (LCSD) R3281439-2 01/23/18 10:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	2.20	2.12	110	106	64.0-142			3.34	20
Acenaphthene	2.00	1.99	1.91	99.4	95.6	66.0-132			3.89	20
Acenaphthylene	2.00	2.02	1.94	101	97.1	65.0-132			3.75	20
Benzo(a)anthracene	2.00	2.00	1.95	99.9	97.3	59.0-134			2.63	20
Benzo(a)pyrene	2.00	2.08	1.97	104	98.4	61.0-145			5.42	20
Benzo(b)fluoranthene	2.00	2.05	1.86	102	92.8	57.0-136			9.82	20
Benzo(g,h,i)perylene	2.00	2.21	2.13	110	107	54.0-140			3.49	20
Benzo(k)fluoranthene	2.00	1.96	1.96	97.8	97.8	57.0-141			0.0557	20
Chrysene	2.00	2.07	1.99	104	99.5	63.0-140			4.11	20
Dibenz(a,h)anthracene	2.00	2.33	2.24	116	112	49.0-141			4.05	20
Fluoranthene	2.00	2.28	2.22	114	111	65.0-143			2.46	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281439-1 01/23/18 09:36 • (LCSD) R3281439-2 01/23/18 10:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	1.99	1.93	99.5	96.4	64.0-129			3.20	20
Indeno(1,2,3-cd)pyrene	2.00	2.24	2.15	112	108	53.0-141			4.05	20
Naphthalene	2.00	2.01	1.92	101	96.2	68.0-129			4.40	20
Phenanthrene	2.00	1.97	1.86	98.4	93.1	62.0-132			5.60	20
Pyrene	2.00	1.89	1.83	94.7	91.7	58.0-156			3.25	20
1-Methylnaphthalene	2.00	2.11	2.04	106	102	68.0-137			3.63	20
2-Methylnaphthalene	2.00	2.02	1.93	101	96.6	68.0-134			4.51	20
2-Chloronaphthalene	2.00	2.10	2.03	105	101	65.0-129			3.46	20
(S) Nitrobenzene-d5				99.1	93.6	31.0-160				
(S) 2-Fluorobiphenyl				110	105	48.0-148				
(S) p-Terphenyl-d14				105	103	37.0-146				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3281389-3 01/23/18 10:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	0.00238	U	0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) Nitrobenzene-d5	64.9			14.0-149
(S) 2-Fluorobiphenyl	69.8			34.0-125
(S) p-Terphenyl-d14	55.4			23.0-120

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281389-1 01/23/18 10:09 • (LCSD) R3281389-2 01/23/18 10:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0800	0.0662	0.0618	82.7	77.2	50.0-125			6.85	20
Acenaphthene	0.0800	0.0627	0.0561	78.4	70.1	52.0-120			11.2	20
Acenaphthylene	0.0800	0.0603	0.0529	75.4	66.1	51.0-120			13.1	20
Benzo(a)anthracene	0.0800	0.0538	0.0476	67.3	59.6	46.0-121			12.2	20
Benzo(a)pyrene	0.0800	0.0537	0.0482	67.1	60.3	42.0-121			10.7	20
Benzo(b)fluoranthene	0.0800	0.0499	0.0423	62.4	52.9	42.0-123			16.5	20
Benzo(g,h,i)perylene	0.0800	0.0592	0.0534	74.0	66.8	43.0-128			10.2	20
Benzo(k)fluoranthene	0.0800	0.0592	0.0565	74.0	70.6	45.0-128			4.63	20
Chrysene	0.0800	0.0608	0.0570	76.0	71.3	48.0-127			6.32	20
Dibenz(a,h)anthracene	0.0800	0.0598	0.0536	74.8	67.0	43.0-132			11.0	20
Fluoranthene	0.0800	0.0617	0.0532	77.1	66.5	49.0-129			14.8	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281389-1 01/23/18 10:09 • (LCSD) R3281389-2 01/23/18 10:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	0.0800	0.0616	0.0600	77.0	75.0	50.0-120			2.53	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0601	0.0539	75.2	67.4	44.0-131			10.9	20
Naphthalene	0.0800	0.0610	0.0537	76.2	67.2	50.0-120			12.6	20
Phenanthrene	0.0800	0.0578	0.0517	72.2	64.6	48.0-120			11.1	20
Pyrene	0.0800	0.0485	0.0518	60.6	64.8	48.0-135			6.72	20
1-Methylnaphthalene	0.0800	0.0550	0.0462	68.8	57.7	52.0-122			17.5	20
2-Methylnaphthalene	0.0800	0.0538	0.0447	67.3	55.9	52.0-120			18.4	20
2-Chloronaphthalene	0.0800	0.0614	0.0527	76.7	65.8	50.0-120			15.3	20
(S) Nitrobenzene-d5				87.3	55.2	14.0-149				
(S) 2-Fluorobiphenyl				70.2	62.1	34.0-125				
(S) p-Terphenyl-d14				53.5	57.3	23.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L964604-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L964604-06 01/23/18 18:54 • (MS) R3281389-4 01/23/18 16:21 • (MSD) R3281389-5 01/23/18 16:42

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Anthracene	0.0800	U	0.0730	0.0708	91.2	88.5	1	20.0-136			2.99	24
Acenaphthene	0.0800	U	0.0632	0.0610	79.0	76.2	1	29.0-124			3.63	20
Acenaphthylene	0.0800	U	0.0627	0.0601	78.4	75.2	1	35.0-120			4.21	20
Benzo(a)anthracene	0.0800	U	0.0543	0.0527	67.9	65.9	1	13.0-132			3.06	27
Benzo(a)pyrene	0.0800	U	0.0613	0.0573	76.6	71.7	1	14.0-138			6.63	27
Benzo(b)fluoranthene	0.0800	U	0.0534	0.0478	66.7	59.7	1	10.0-129			11.1	31
Benzo(g,h,i)perylene	0.0800	U	0.0634	0.0585	79.3	73.1	1	10.0-133			8.10	30
Benzo(k)fluoranthene	0.0800	U	0.0620	0.0606	77.4	75.7	1	15.0-131			2.25	27
Chrysene	0.0800	U	0.0657	0.0655	82.1	81.8	1	15.0-137			0.380	25
Dibenz(a,h)anthracene	0.0800	U	0.0653	0.0597	81.6	74.6	1	15.0-132			8.96	27
Fluoranthene	0.0800	U	0.0612	0.0587	76.4	73.4	1	13.0-139			4.11	28
Fluorene	0.0800	U	0.0615	0.0591	76.9	73.9	1	27.0-122			3.98	22
Indeno(1,2,3-cd)pyrene	0.0800	U	0.0645	0.0594	80.6	74.3	1	11.0-133			8.12	29
Naphthalene	0.0800	U	0.0638	0.0609	79.8	76.2	1	18.0-136			4.58	21
Phenanthrene	0.0800	U	0.0590	0.0568	73.8	71.0	1	15.0-133			3.89	25
Pyrene	0.0800	U	0.0606	0.0573	75.7	71.6	1	11.0-146			5.56	29
1-Methylnaphthalene	0.0800	U	0.0586	0.0560	73.3	70.1	1	24.0-137			4.53	22
2-Methylnaphthalene	0.0800	U	0.0552	0.0549	69.0	68.6	1	23.0-136			0.650	22
2-Chloronaphthalene	0.0800	U	0.0632	0.0605	78.9	75.6	1	36.0-120			4.36	20
(S) Nitrobenzene-d5					77.4	67.4		14.0-149				
(S) 2-Fluorobiphenyl					76.7	74.0		34.0-125				
(S) p-Terphenyl-d14					70.7	67.5		23.0-120				



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gi

8 Ai

9 Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey-NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio-VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

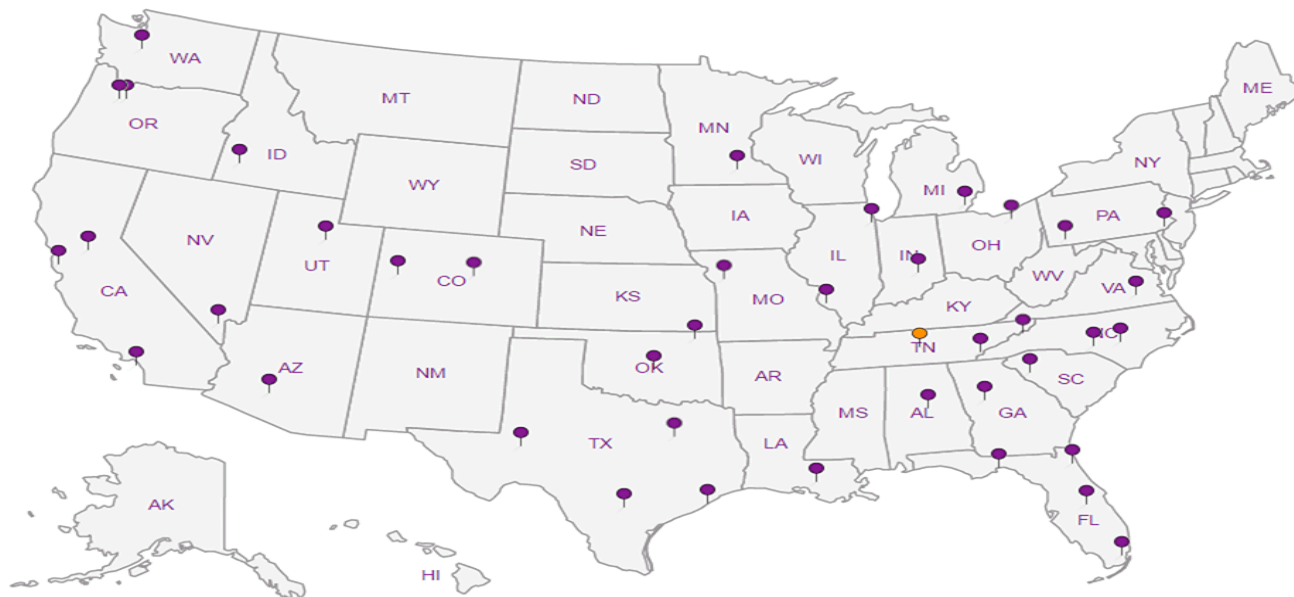
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



GAIA Tech - Chicago, IL

135 S. LaSalle St, Ste 3500
Chicago, IL 60603

Billing Information:

Accounts Payable and PM
135 S. LaSalle St, Ste 3500
Chicago, IL 60603Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page ____ of ____

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 96461

H242

Acctnum: GAIACIL

Template: T131605

Prelogin: P635243

TSR: 104 - Jason Romer

PB: 1-12-18 cm

Shipped Via: FedEX Ground

Report to:

Larry Bertsch

Email To: larry.bertsch@rpsgroup.com

Project

Description: Melville, NY

City/State

Collected: melville NY

Lab Project

GAICIL-MELVILLE

P.O.

Quote

Date Results Needed

No.
of
CntsPhone: 312-541-4200
Fax: 312-541-0340Client Project #
16785542000

Collected by (print):

Larry P. Bertsch

Site/Facility ID

NY

Collected by (signature):

Rush? (Lab MUST Be Notified)

☐ Same Day ☐ Five Day
☐ Next Day ☐ 5 Day (Rad Only)
☐ Two Day ☐ 10 Day (Rad Only)
☐ Three Day

Packed on Ice N ☐ Y ☒ X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	Metals (Lab Filter) 250mlHDPE-NoPres	PAHSIMLVID 40mlAmb-NoPres-WT	RCRA8 Metals 2ozClr-NoPres	SV8270PAHSIMD,TS 4ozClr-NoPres	TO-15 Summa	V8260C 2ozClr-NoPres	V8260C 40ml/NaHSO4/Syr/MeOH	V8260C 40mlAmb-HCl	V8260C 40mlAmb-HCl-Bik	Remarks	Sample # (lab only)
GP-1	Grab	SS	13-15'	1/17/18	1330	6			X	X		X	X				01
GP-2		SS	5-7'	1/17/18	1800	6			X	X		X	X				02
GP-3		SS	15-17'	1/18/18	900	6			X	X		X	X				03
GP-4		SS	15-17'	1/18/18	850	6			X	X		X	X				04
GP-5		SS	35-5'		1108	6			X	X		X	X				05
GP-6		SS	3-5'		1205	6			X	X		X	X				06
		SS				6			X	X		X	X				
		SS				6			X	X		X	X				
Trip Blank		SS				1			X	X		X	X				
		GW				5	X	X							X		

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - Waste Water
 DW - Drinking Water
 OT - Other

Remarks:

* MUST meet HOLD time on soil
 samples - 5-6 days

Samples returned via:

☐ UPS ☒ FedEx ☐ Courier

Tracking # 4142 5232 3834

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N
 COC Signed/Accurate: ☒ Y ☐ N
 Bottles arrive intact: ☒ Y ☐ N
 Correct bottles used: ☒ Y ☐ N
 Sufficient volume sent: ☒ Y ☐ N
 If Applicable
 VOA Zero Headspace: ☒ Y ☐ N
 Preservation Correct/Checked: ☒ Y ☐ N

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received: Yes ☒ No ☐
 HCL/MeOH
 TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: 1.5°C
 Bottles Received: 47

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date: 1/20/18
 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition:
NCR / OK

GAIA Tech - Chicago, IL

135 S. LaSalle St, Ste 3500
Chicago, IL 60603Report to:
Larry BertschProject
Description: Melville, NYPhone: 312-541-4200
Fax: 312-541-0340

Collected by (print):

Larry P. Bertsch

Collected by (signature):

Immediately
Packed on Ice N ☒ Y ☒

Billing Information:

Accounts Payable and PM
135 S. LaSalle St, Ste 3500
Chicago, IL 60603

Email To: larry.bertsch@rpsgroup.com

City/State
Collected:Lab Project #
GAICIL-MELVILLE

P.O. #

Quote #

Date Results Needed

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1L.A.B. S.C.I.E.N.C.E.S.
a subsidiary of 12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#

Table #

Acctnum: GAICIL

Template: T131605

Prelogin: P635243

TSR: 104 - Jason Romer

PB: 1-12-18 cm

Shipped Via: FedEx Ground

Remarks

Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Metals (Lab Filter) 250mlHDPE-NoPres	PAHSIMLVID 40mlAmb-NoPres-WT	RCRA8 Metals 2ozClr-NoPres	SV8270PAHSIMD, TS 4ozClr-NoPres	TO-15 Summa	V8260C 2ozClr-NoPres	V8260C 40ml/NaHSO4/Syr/MeOH	V8260C 40mlAmb-HCl	V8260C 40mlAmb-HCl-Bik		
GP-4	GRAB	GW	-	1/19/18	010	5	X	X						X			8
GP-6	↓	GW	-	"	1515	5	X	X						X			09
		GW				5	X	X						X			
		GW				5	X	X						X			
		GW				5	X	X						X			
		GW				5	X	X						X			
		GW				5	X	X						X			
		GW				5	X	X						X			
TRIP BLANK		GW				2									X		
		Air				1					X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
☒ UPS ☒ FedEx ☐ Courier

Tracking # 442 5232 3834

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact:	☒ Y ☐ N
COC Signed/Accurate:	☒ Y ☐ N
Bottles arrive intact:	☒ Y ☐ N
Correct bottles used:	☒ Y ☐ N
Sufficient volume sent:	☒ Y ☐ N
If Applicable	
VOA Zero Headspace:	☒ Y ☐ N
Preservation Correct/Checked:	☒ Y ☐ N

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received: Yes ☒ No ☐
HCL / MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C 47
Bottles Received:

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 1/20/18 Time: 0900

Hold:

Condition:
NCF / OK

January 24, 2018

GAIA Tech - Chicago, IL

Sample Delivery Group: L964491
Samples Received: 01/20/2018
Project Number: 16785542000
Description: Melville, NY
Site: NY
Report To: Larry Bertsch
135 S. LaSalle St, Ste 3500
Chicago, IL 60603

Entire Report Reviewed By:



Jason Romer
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SS-1 L964491-01 Air

			Collected by Larry Bertsch	Collected date/time 01/18/18 16:19	Received date/time 01/20/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1064707	1	01/20/18 22:44	01/20/18 22:44	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1065114	25	01/22/18 19:16	01/22/18 19:16	MBF

¹ Cp

² Tc

³ Ss

SS-3 L964491-03 Air

			Collected by Larry Bertsch	Collected date/time 01/19/18 08:32	Received date/time 01/20/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1064707	1	01/20/18 23:31	01/20/18 23:31	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1065114	25	01/22/18 19:54	01/22/18 19:54	MBF

⁴ Cn

⁵ Sr

⁶ Qc

SS-4 L964491-04 Air

			Collected by Larry Bertsch	Collected date/time 01/19/18 10:14	Received date/time 01/20/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1064707	1	01/21/18 00:17	01/21/18 00:17	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1065114	10	01/22/18 20:32	01/22/18 20:32	MBF

⁷ Gl

⁸ Al

⁹ Sc

SS-5 L964491-05 Air

			Collected by Larry Bertsch	Collected date/time 01/18/18 15:54	Received date/time 01/20/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1064707	1	01/21/18 01:16	01/21/18 01:16	MBF
Volatile Organic Compounds (MS) by Method TO-15	WG1065114	20	01/22/18 21:12	01/22/18 21:12	MBF

SG-1 L964491-06 Air

			Collected by Larry Bertsch	Collected date/time 01/18/18 15:07	Received date/time 01/20/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1065099	1	01/22/18 14:13	01/22/18 14:13	AMC
Volatile Organic Compounds (MS) by Method TO-15	WG1065339	10	01/23/18 13:56	01/23/18 13:56	AMC

SG-2 L964491-07 Air

			Collected by Larry Bertsch	Collected date/time 01/19/18 12:11	Received date/time 01/20/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1065099	1	01/22/18 15:00	01/22/18 15:00	AMC

SS-2 L964491-08 Air

			Collected by Larry Bertsch	Collected date/time 01/18/18 17:25	Received date/time 01/20/18 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (MS) by Method TO-15	WG1065114	10	01/22/18 21:50	01/22/18 21:50	MBF



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	23.4	55.5		1	WG1064707
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1064707
Benzene	71-43-2	78.10	0.200	0.639	0.452	1.44		1	WG1064707
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1064707
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1064707
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1064707
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1064707
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1064707
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1064707
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1064707
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1064707
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1064707
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1064707
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1064707
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1064707
Cyclohexane	110-82-7	84.20	0.200	0.689	0.367	1.26		1	WG1064707
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1064707
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1064707
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1064707
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	0.201	1.21		1	WG1064707
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1064707
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1064707
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1064707
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1064707
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1064707
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1064707
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1064707
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1064707
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1064707
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1064707
Ethanol	64-17-5	46.10	15.8	29.8	58.4	110		25	WG1065114
Ethylbenzene	100-41-4	106	0.200	0.867	3.04	13.2		1	WG1064707
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.318	1.56		1	WG1064707
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.465	2.61		1	WG1064707
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	1.24	6.16		1	WG1064707
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1064707
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1064707
Heptane	142-82-5	100	0.200	0.818	0.336	1.37		1	WG1064707
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1064707
n-Hexane	110-54-3	86.20	0.200	0.705	0.369	1.30		1	WG1064707
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1064707
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1064707
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1064707
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	3.31	9.77		1	WG1064707
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1064707
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1064707
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1064707
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1064707
2-Propanol	67-63-0	60.10	31.2	76.7	657	1620		25	WG1065114
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1064707
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1064707
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1064707
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.447	3.04		1	WG1064707
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.822	2.42		1	WG1064707
Toluene	108-88-3	92.10	0.200	0.753	10.9	41.0		1	WG1064707
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1064707

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1064707
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1064707
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1064707
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.357	1.75		1	WG1064707
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1064707
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1064707
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1064707
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1064707
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1064707
m&p-Xylene	1330-20-7	106	0.400	1.73	10.7	46.5		1	WG1064707
o-Xylene	95-47-6	106	0.200	0.867	3.00	13.0		1	WG1064707
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.3				WG1064707
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.5				WG1065114

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

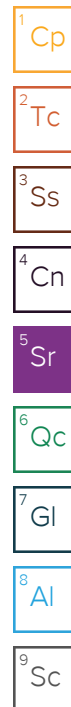
8Al

9Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	31.2	74.1	472	1120		25	WG1065114
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1064707
Benzene	71-43-2	78.10	0.200	0.639	5.11	16.3		1	WG1064707
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1064707
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1064707
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1064707
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1064707
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1064707
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1064707
Carbon tetrachloride	56-23-5	154	0.200	1.26	1.06	6.67		1	WG1064707
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1064707
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1064707
Chloroform	67-66-3	119	0.200	0.973	3.98	19.4		1	WG1064707
Chloromethane	74-87-3	50.50	0.200	0.413	0.457	0.945		1	WG1064707
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1064707
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1064707
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1064707
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1064707
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1064707
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	0.952	5.72		1	WG1064707
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1064707
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1064707
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1064707
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1064707
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1064707
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1064707
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1064707
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1064707
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1064707
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.632	2.28		1	WG1064707
Ethanol	64-17-5	46.10	15.8	29.8	291	548		25	WG1065114
Ethylbenzene	100-41-4	106	0.200	0.867	0.665	2.88		1	WG1064707
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.807	3.96		1	WG1064707
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	3.80	21.3		1	WG1064707
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	15.2	75.0		1	WG1064707
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	0.374	2.86		1	WG1064707
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1064707
Heptane	142-82-5	100	0.200	0.818	0.468	1.92		1	WG1064707
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1064707
n-Hexane	110-54-3	86.20	0.200	0.705	0.737	2.60		1	WG1064707
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1064707
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1064707
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	2.49	10.2		1	WG1064707
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	16.0	47.3		1	WG1064707
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	1.78	7.30		1	WG1064707
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1064707
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1064707
Naphthalene	91-20-3	128	0.630	3.30	0.671	3.51		1	WG1064707
2-Propanol	67-63-0	60.10	31.2	76.7	272	669		25	WG1065114
Propene	115-07-1	42.10	0.400	0.689	33.0	56.7		1	WG1064707
Styrene	100-42-5	104	0.200	0.851	1.64	6.98		1	WG1064707
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1064707
Tetrachloroethylene	127-18-4	166	0.200	1.36	1.55	10.6		1	WG1064707
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1064707
Toluene	108-88-3	92.10	0.200	0.753	14.1	53.1		1	WG1064707
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1064707



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	2.16	11.8		1	WG1064707
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1064707
Trichloroethylene	79-01-6	131	0.200	1.07	0.543	2.91		1	WG1064707
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.09	5.36		1	WG1064707
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.284	1.39		1	WG1064707
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1064707
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1064707
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1064707
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1064707
m&p-Xylene	1330-20-7	106	0.400	1.73	2.66	11.5		1	WG1064707
o-Xylene	95-47-6	106	0.200	0.867	0.854	3.70		1	WG1064707
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.5				WG1064707
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.7				WG1065114

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

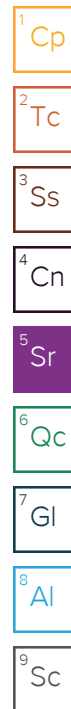


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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	12.5	29.7	75.7	180		10	WG1065114
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1064707
Benzene	71-43-2	78.10	0.200	0.639	1.04	3.32		1	WG1064707
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1064707
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1064707
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1064707
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1064707
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1064707
Carbon disulfide	75-15-0	76.10	0.200	0.622	1.32	4.11		1	WG1064707
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1064707
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1064707
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1064707
Chloroform	67-66-3	119	0.200	0.973	1.37	6.68		1	WG1064707
Chloromethane	74-87-3	50.50	0.200	0.413	0.232	0.479		1	WG1064707
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1064707
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1064707
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1064707
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1064707
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1064707
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1064707
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1064707
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1064707
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1064707
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1064707
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1064707
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1064707
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1064707
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1064707
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1064707
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1064707
Ethanol	64-17-5	46.10	6.30	11.9	131	247		10	WG1065114
Ethylbenzene	100-41-4	106	0.200	0.867	0.733	3.18		1	WG1064707
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.680	3.34		1	WG1064707
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	2.79	15.7		1	WG1064707
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	2.74	13.5		1	WG1064707
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1064707
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1064707
Heptane	142-82-5	100	0.200	0.818	0.598	2.44		1	WG1064707
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1064707
n-Hexane	110-54-3	86.20	0.200	0.705	0.373	1.31		1	WG1064707
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1064707
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.305	1.06		1	WG1064707
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1064707
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	6.43	19.0		1	WG1064707
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1064707
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1064707
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1064707
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1064707
2-Propanol	67-63-0	60.10	1.25	3.07	11.2	27.4		1	WG1064707
Propene	115-07-1	42.10	0.400	0.689	2.96	5.09		1	WG1064707
Styrene	100-42-5	104	0.200	0.851	0.248	1.06		1	WG1064707
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1064707
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.541	3.67		1	WG1064707
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1064707
Toluene	108-88-3	92.10	0.200	0.753	1.08	4.08		1	WG1064707
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1064707





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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1064707
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1064707
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1064707
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.795	3.90		1	WG1064707
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.221	1.08		1	WG1064707
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1064707
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1064707
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1064707
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1064707
m&p-Xylene	1330-20-7	106	0.400	1.73	2.84	12.3		1	WG1064707
o-Xylene	95-47-6	106	0.200	0.867	1.47	6.39		1	WG1064707
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.6				WG1065114
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.7				WG1064707

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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L964491

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	127	302		20	WG1065114
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1064707
Benzene	71-43-2	78.10	0.200	0.639	0.862	2.75		1	WG1064707
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1064707
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1064707
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1064707
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1064707
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1064707
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1064707
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1064707
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1064707
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1064707
Chloroform	67-66-3	119	0.200	0.973	5.06	24.6		1	WG1064707
Chloromethane	74-87-3	50.50	0.200	0.413	0.351	0.726		1	WG1064707
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1064707
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1064707
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1064707
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1064707
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1064707
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1064707
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1064707
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1064707
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1064707
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1064707
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1064707
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1064707
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1064707
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1064707
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1064707
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1064707
Ethanol	64-17-5	46.10	12.6	23.8	202	380		20	WG1065114
Ethylbenzene	100-41-4	106	0.200	0.867	0.427	1.85		1	WG1064707
4-Ethyltoluene	622-96-8	120	0.200	0.982	1.03	5.06		1	WG1064707
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	24.8	140		1	WG1064707
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	23.9	118		1	WG1064707
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1064707
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1064707
Heptane	142-82-5	100	0.200	0.818	1.41	5.78		1	WG1064707
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1064707
n-Hexane	110-54-3	86.20	0.200	0.705	0.722	2.54		1	WG1064707
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1064707
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1064707
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	2.73	11.2		1	WG1064707
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	10.4	30.5		1	WG1064707
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	2.13	8.71		1	WG1064707
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1064707
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1064707
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1064707
2-Propanol	67-63-0	60.10	25.0	61.5	74.9	184		20	WG1065114
Propene	115-07-1	42.10	0.400	0.689	5.00	8.60		1	WG1064707
Styrene	100-42-5	104	0.200	0.851	0.231	0.984		1	WG1064707
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1064707
Tetrachloroethylene	127-18-4	166	0.200	1.36	2.39	16.2		1	WG1064707
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1064707
Toluene	108-88-3	92.10	0.200	0.753	2.46	9.27		1	WG1064707
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1064707

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1064707
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1064707
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1064707
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.21	5.96		1	WG1064707
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.264	1.30		1	WG1064707
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1064707
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1064707
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1064707
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1064707
m&p-Xylene	1330-20-7	106	0.400	1.73	1.72	7.45		1	WG1064707
o-Xylene	95-47-6	106	0.200	0.867	0.680	2.95		1	WG1064707
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.3				WG1065114
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.9				WG1064707

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Collected date/time: 01/18/18 15:07

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Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	24.4	57.9		1	WG1065099
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1065099
Benzene	71-43-2	78.10	0.200	0.639	1.29	4.11		1	WG1065099
Benzyl Chloride	100-44-7	127	2.00	10.4	ND	ND		10	WG1065339
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1065099
Bromoform	75-25-2	253	6.00	62.1	ND	ND		10	WG1065339
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1065099
1,3-Butadiene	106-99-0	54.10	2.00	4.43	2.72	6.01		1	WG1065099
Carbon disulfide	75-15-0	76.10	0.200	0.622	2.53	7.88		1	WG1065099
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1065099
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1065099
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1065099
Chloroform	67-66-3	119	0.200	0.973	0.611	2.98		1	WG1065099
Chloromethane	74-87-3	50.50	0.200	0.413	0.260	0.538		1	WG1065099
2-Chlorotoluene	95-49-8	126	2.00	10.3	ND	ND		10	WG1065339
Cyclohexane	110-82-7	84.20	0.200	0.689	4.94	17.0		1	WG1065099
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1065099
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1065099
1,2-Dichlorobenzene	95-50-1	147	2.00	12.0	ND	ND		10	WG1065339
1,3-Dichlorobenzene	541-73-1	147	2.00	12.0	ND	ND		10	WG1065339
1,4-Dichlorobenzene	106-46-7	147	2.00	12.0	ND	ND	J4	10	WG1065339
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1065099
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1065099
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1065099
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1065099
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1065099
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1065099
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1065099
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1065099
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1065099
Ethanol	64-17-5	46.10	0.630	1.19	6.05	11.4		1	WG1065099
Ethylbenzene	100-41-4	106	2.00	8.67	4.17	18.1		10	WG1065339
4-Ethyltoluene	622-96-8	120	2.00	9.82	6.03	29.6		10	WG1065339
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	1.05	5.89		1	WG1065099
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	18.7	92.7		1	WG1065099
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1065099
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1065099
Heptane	142-82-5	100	0.200	0.818	6.61	27.0		1	WG1065099
Hexachloro-1,3-butadiene	87-68-3	261	6.30	67.3	ND	ND		10	WG1065339
n-Hexane	110-54-3	86.20	0.200	0.705	3.76	13.3		1	WG1065099
Isopropylbenzene	98-82-8	120.20	2.00	9.83	2.33	11.4		10	WG1065339
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1065099
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1065099
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	19.0	56.1		1	WG1065099
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1065099
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1065099
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1065099
Naphthalene	91-20-3	128	6.30	33.0	ND	ND		10	WG1065339
2-Propanol	67-63-0	60.10	1.25	3.07	1.52	3.74		1	WG1065099
Propene	115-07-1	42.10	0.400	0.689	28.6	49.3		1	WG1065099
Styrene	100-42-5	104	2.00	8.51	ND	ND		10	WG1065339
1,1,2,2-Tetrachloroethane	79-34-5	168	2.00	13.7	2.64	18.1		10	WG1065339
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.717	4.87		1	WG1065099
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	31.0	91.5		1	WG1065099
Toluene	108-88-3	92.10	0.200	0.753	5.01	18.9		1	WG1065099
1,2,4-Trichlorobenzene	120-82-1	181	6.30	46.6	ND	ND		10	WG1065339

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1065099
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1065099
Trichloroethylene	79-01-6	131	0.200	1.07	0.444	2.38		1	WG1065099
1,2,4-Trimethylbenzene	95-63-6	120	2.00	9.82	5.00	24.5		10	WG1065339
1,3,5-Trimethylbenzene	108-67-8	120	2.00	9.82	3.74	18.4		10	WG1065339
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	24.0	112		1	WG1065099
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1065099
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1065099
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1065099
m&p-Xylene	1330-20-7	106	4.00	17.3	14.7	63.7		10	WG1065339
o-Xylene	95-47-6	106	2.00	8.67	11.4	49.2		10	WG1065339
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		102				WG1065339
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		226		J1		WG1065099

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	41.0	97.5		1	WG1065099
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1065099
Benzene	71-43-2	78.10	0.200	0.639	1.76	5.63		1	WG1065099
Benzyl Chloride	100-44-7	127	0.200	1.04	0.603	3.13		1	WG1065099
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1065099
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1065099
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1065099
1,3-Butadiene	106-99-0	54.10	2.00	4.43	3.98	8.80		1	WG1065099
Carbon disulfide	75-15-0	76.10	0.200	0.622	1.44	4.48		1	WG1065099
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1065099
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1065099
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1065099
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1065099
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1065099
2-Chlorotoluene	95-49-8	126	0.200	1.03	0.410	2.12		1	WG1065099
Cyclohexane	110-82-7	84.20	0.200	0.689	0.290	1.00		1	WG1065099
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1065099
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1065099
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1065099
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1065099
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1065099
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1065099
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1065099
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1065099
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1065099
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1065099
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1065099
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1065099
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1065099
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1065099
Ethanol	64-17-5	46.10	0.630	1.19	4.03	7.61		1	WG1065099
Ethylbenzene	100-41-4	106	0.200	0.867	0.874	3.79		1	WG1065099
4-Ethyltoluene	622-96-8	120	0.200	0.982	3.93	19.3		1	WG1065099
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.246	1.38		1	WG1065099
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	7.40	36.6		1	WG1065099
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1065099
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1065099
Heptane	142-82-5	100	0.200	0.818	1.19	4.86		1	WG1065099
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1065099
n-Hexane	110-54-3	86.20	0.200	0.705	1.41	4.97		1	WG1065099
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.468	2.30		1	WG1065099
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1065099
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1065099
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	11.2	33.1		1	WG1065099
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1065099
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1065099
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1065099
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1065099
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG1065099
Propene	115-07-1	42.10	0.400	0.689	26.5	45.6		1	WG1065099
Styrene	100-42-5	104	0.200	0.851	0.223	0.947		1	WG1065099
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1065099
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.226	1.53		1	WG1065099
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	12.8	37.9		1	WG1065099
Toluene	108-88-3	92.10	0.200	0.753	2.06	7.76		1	WG1065099
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1065099

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1065099
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1065099
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1065099
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	13.0	63.8		1	WG1065099
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	4.31	21.2		1	WG1065099
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1065099
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1065099
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1065099
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1065099
m&p-Xylene	1330-20-7	106	0.400	1.73	3.42	14.8		1	WG1065099
o-Xylene	95-47-6	106	0.200	0.867	1.49	6.46		1	WG1065099
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1065099

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

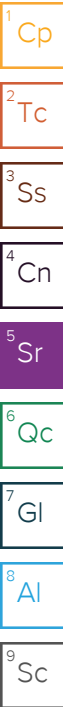
8Al

9Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	12.5	29.7	47.4	113		10	WG1065114
Allyl chloride	107-05-1	76.53	2.00	6.26	ND	ND		10	WG1065114
Benzene	71-43-2	78.10	2.00	6.39	ND	ND		10	WG1065114
Benzyl Chloride	100-44-7	127	2.00	10.4	ND	ND		10	WG1065114
Bromodichloromethane	75-27-4	164	2.00	13.4	ND	ND		10	WG1065114
Bromoform	75-25-2	253	6.00	62.1	ND	ND		10	WG1065114
Bromomethane	74-83-9	94.90	2.00	7.76	ND	ND		10	WG1065114
1,3-Butadiene	106-99-0	54.10	20.0	44.3	ND	ND		10	WG1065114
Carbon disulfide	75-15-0	76.10	2.00	6.22	ND	ND		10	WG1065114
Carbon tetrachloride	56-23-5	154	2.00	12.6	ND	ND		10	WG1065114
Chlorobenzene	108-90-7	113	2.00	9.24	ND	ND		10	WG1065114
Chloroethane	75-00-3	64.50	2.00	5.28	ND	ND		10	WG1065114
Chloroform	67-66-3	119	2.00	9.73	ND	ND		10	WG1065114
Chloromethane	74-87-3	50.50	2.00	4.13	ND	ND		10	WG1065114
2-Chlorotoluene	95-49-8	126	2.00	10.3	ND	ND		10	WG1065114
Cyclohexane	110-82-7	84.20	2.00	6.89	ND	ND		10	WG1065114
Dibromochloromethane	124-48-1	208	2.00	17.0	ND	ND		10	WG1065114
1,2-Dibromoethane	106-93-4	188	2.00	15.4	ND	ND		10	WG1065114
1,2-Dichlorobenzene	95-50-1	147	2.00	12.0	ND	ND		10	WG1065114
1,3-Dichlorobenzene	541-73-1	147	2.00	12.0	ND	ND		10	WG1065114
1,4-Dichlorobenzene	106-46-7	147	2.00	12.0	ND	ND		10	WG1065114
1,2-Dichloroethane	107-06-2	99	2.00	8.10	ND	ND		10	WG1065114
1,1-Dichloroethane	75-34-3	98	2.00	8.02	ND	ND		10	WG1065114
1,1-Dichloroethene	75-35-4	96.90	2.00	7.93	ND	ND		10	WG1065114
cis-1,2-Dichloroethene	156-59-2	96.90	2.00	7.93	ND	ND		10	WG1065114
trans-1,2-Dichloroethene	156-60-5	96.90	2.00	7.93	ND	ND		10	WG1065114
1,2-Dichloropropane	78-87-5	113	2.00	9.24	ND	ND		10	WG1065114
cis-1,3-Dichloropropene	10061-01-5	111	2.00	9.08	ND	ND		10	WG1065114
trans-1,3-Dichloropropene	10061-02-6	111	2.00	9.08	ND	ND		10	WG1065114
1,4-Dioxane	123-91-1	88.10	2.00	7.21	ND	ND		10	WG1065114
Ethanol	64-17-5	46.10	6.30	11.9	41.5	78.2		10	WG1065114
Ethylbenzene	100-41-4	106	2.00	8.67	3.27	14.2		10	WG1065114
4-Ethyltoluene	622-96-8	120	2.00	9.82	ND	ND		10	WG1065114
Trichlorofluoromethane	75-69-4	137.40	2.00	11.2	ND	ND		10	WG1065114
Dichlorodifluoromethane	75-71-8	120.92	2.00	9.89	ND	ND		10	WG1065114
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	2.00	15.3	ND	ND		10	WG1065114
1,2-Dichlorotetrafluoroethane	76-14-2	171	2.00	14.0	ND	ND		10	WG1065114
Heptane	142-82-5	100	2.00	8.18	ND	ND		10	WG1065114
Hexachloro-1,3-butadiene	87-68-3	261	6.30	67.3	ND	ND		10	WG1065114
n-Hexane	110-54-3	86.20	2.00	7.05	ND	ND		10	WG1065114
Isopropylbenzene	98-82-8	120.20	2.00	9.83	ND	ND		10	WG1065114
Methylene Chloride	75-09-2	84.90	2.00	6.94	ND	ND		10	WG1065114
Methyl Butyl Ketone	591-78-6	100	12.5	51.1	ND	ND		10	WG1065114
2-Butanone (MEK)	78-93-3	72.10	12.5	36.9	ND	ND		10	WG1065114
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	12.5	51.2	ND	ND		10	WG1065114
Methyl methacrylate	80-62-6	100.12	2.00	8.19	ND	ND		10	WG1065114
MTBE	1634-04-4	88.10	2.00	7.21	ND	ND		10	WG1065114
Naphthalene	91-20-3	128	6.30	33.0	ND	ND		10	WG1065114
2-Propanol	67-63-0	60.10	12.5	30.7	60.0	147		10	WG1065114
Propene	115-07-1	42.10	4.00	6.89	ND	ND		10	WG1065114
Styrene	100-42-5	104	2.00	8.51	ND	ND		10	WG1065114
1,1,2,2-Tetrachloroethane	79-34-5	168	2.00	13.7	ND	ND		10	WG1065114
Tetrachloroethylene	127-18-4	166	2.00	13.6	ND	ND		10	WG1065114
Tetrahydrofuran	109-99-9	72.10	2.00	5.90	ND	ND		10	WG1065114
Toluene	108-88-3	92.10	2.00	7.53	2.89	10.9		10	WG1065114
1,2,4-Trichlorobenzene	120-82-1	181	6.30	46.6	ND	ND		10	WG1065114



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	2.00	10.9	ND	ND		10	WG1065114
1,1,2-Trichloroethane	79-00-5	133	2.00	10.9	ND	ND		10	WG1065114
Trichloroethylene	79-01-6	131	2.00	10.7	ND	ND		10	WG1065114
1,2,4-Trimethylbenzene	95-63-6	120	2.00	9.82	2.25	11.0		10	WG1065114
1,3,5-Trimethylbenzene	108-67-8	120	2.00	9.82	ND	ND		10	WG1065114
2,2,4-Trimethylpentane	540-84-1	114.22	2.00	9.34	ND	ND		10	WG1065114
Vinyl chloride	75-01-4	62.50	2.00	5.11	ND	ND		10	WG1065114
Vinyl Bromide	593-60-2	106.95	2.00	8.75	ND	ND		10	WG1065114
Vinyl acetate	108-05-4	86.10	2.00	7.04	ND	ND		10	WG1065114
m&p-Xylene	1330-20-7	106	4.00	17.3	13.7	59.2		10	WG1065114
o-Xylene	95-47-6	106	2.00	8.67	7.89	34.2		10	WG1065114
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.1				WG1065114

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3280857-3 01/20/18 10:23

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3280857-3 01/20/18 10:23

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
(S) 1,4-Bromofluorobenzene	97.7			60.0-140

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280857-1 01/20/18 08:53 • (LCSD) R3280857-2 01/20/18 09:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Propene	3.75	3.92	3.94	105	105	54.0-155			0.509	25
Dichlorodifluoromethane	3.75	4.12	4.14	110	111	69.0-143			0.518	25
1,2-Dichlorotetrafluoroethane	3.75	4.00	4.02	107	107	70.0-130			0.489	25
Chloromethane	3.75	3.44	3.80	91.7	101	70.0-130			9.99	25
Vinyl chloride	3.75	3.68	3.81	98.3	101	70.0-130			3.22	25
1,3-Butadiene	3.75	3.67	3.74	98.0	99.7	70.0-130			1.75	25

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280857-1 01/20/18 08:53 • (LCSD) R3280857-2 01/20/18 09:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromomethane	3.75	4.38	4.48	117	120	70.0-130			2.40	25
Chloroethane	3.75	4.12	4.17	110	111	70.0-130			1.35	25
Trichlorofluoromethane	3.75	4.11	4.18	110	111	70.0-130			1.65	25
1,1,2-Trichlorotrifluoroethane	3.75	4.19	4.22	112	112	70.0-130			0.628	25
1,1-Dichloroethene	3.75	3.99	4.04	106	108	70.0-130			1.21	25
1,1-Dichloroethane	3.75	3.94	4.02	105	107	70.0-130			1.92	25
Acetone	3.75	3.79	3.95	101	105	70.0-130			4.04	25
2-Propanol	3.75	3.97	4.06	106	108	66.0-150			2.23	25
Carbon disulfide	3.75	4.02	4.07	107	109	70.0-130			1.44	25
Methylene Chloride	3.75	3.78	3.85	101	103	70.0-130			1.89	25
MTBE	3.75	4.02	4.07	107	109	70.0-130			1.32	25
trans-1,2-Dichloroethene	3.75	3.95	4.05	105	108	70.0-130			2.53	25
n-Hexane	3.75	3.97	4.03	106	107	70.0-130			1.41	25
Vinyl acetate	3.75	3.83	3.95	102	105	70.0-130			3.05	25
Methyl Ethyl Ketone	3.75	4.16	4.17	111	111	70.0-130			0.284	25
cis-1,2-Dichloroethene	3.75	3.99	4.05	107	108	70.0-130			1.52	25
Chloroform	3.75	3.97	4.01	106	107	70.0-130			0.965	25
Cyclohexane	3.75	4.07	4.13	108	110	70.0-130			1.59	25
1,1,1-Trichloroethane	3.75	4.02	4.04	107	108	70.0-130			0.430	25
Carbon tetrachloride	3.75	4.05	4.09	108	109	70.0-130			1.05	25
Benzene	3.75	4.05	4.07	108	108	70.0-130			0.469	25
1,2-Dichloroethane	3.75	3.87	3.93	103	105	70.0-130			1.42	25
Heptane	3.75	3.92	3.95	105	105	70.0-130			0.711	25
Trichloroethylene	3.75	4.05	4.04	108	108	70.0-130			0.273	25
1,2-Dichloropropane	3.75	3.92	4.10	104	109	70.0-130			4.48	25
1,4-Dioxane	3.75	4.06	4.28	108	114	70.0-152			5.10	25
Bromodichloromethane	3.75	4.00	4.02	107	107	70.0-130			0.440	25
cis-1,3-Dichloropropene	3.75	4.13	4.17	110	111	70.0-130			0.765	25
4-Methyl-2-pentanone (MIBK)	3.75	4.04	4.12	108	110	70.0-142			1.85	25
Toluene	3.75	4.13	4.17	110	111	70.0-130			0.947	25
trans-1,3-Dichloropropene	3.75	4.12	4.18	110	112	70.0-130			1.52	25
1,1,2-Trichloroethane	3.75	4.04	4.08	108	109	70.0-130			1.07	25
Tetrachloroethylene	3.75	4.16	4.18	111	111	70.0-130			0.512	25
Methyl Butyl Ketone	3.75	4.06	4.23	108	113	70.0-150			4.18	25
Dibromochloromethane	3.75	4.01	4.07	107	108	70.0-130			1.42	25
1,2-Dibromoethane	3.75	4.00	4.06	107	108	70.0-130			1.46	25
Chlorobenzene	3.75	3.95	3.99	105	106	70.0-130			1.04	25
Ethylbenzene	3.75	4.28	4.28	114	114	70.0-130			0.0360	25
m&p-Xylene	7.50	8.57	8.55	114	114	70.0-130			0.230	25
o-Xylene	3.75	4.31	4.30	115	115	70.0-130			0.280	25

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3280857-1 01/20/18 08:53 • (LCSD) R3280857-2 01/20/18 09:38

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Styrene	3.75	4.50	4.49	120	120	70.0-130			0.101	25
Bromoform	3.75	4.42	4.42	118	118	70.0-130			0.0596	25
1,1,2,2-Tetrachloroethane	3.75	4.20	4.23	112	113	70.0-130			0.687	25
4-Ethyltoluene	3.75	4.48	4.47	119	119	70.0-130			0.186	25
1,3,5-Trimethylbenzene	3.75	4.45	4.44	119	118	70.0-130			0.0860	25
1,2,4-Trimethylbenzene	3.75	4.45	4.43	119	118	70.0-130			0.327	25
1,3-Dichlorobenzene	3.75	4.54	4.53	121	121	70.0-130			0.166	25
1,4-Dichlorobenzene	3.75	4.63	4.63	124	124	70.0-130			0.0159	25
Benzyl Chloride	3.75	4.76	4.79	127	128	70.0-144			0.623	25
1,2-Dichlorobenzene	3.75	4.46	4.45	119	119	70.0-130			0.0555	25
1,2,4-Trichlorobenzene	3.75	4.55	4.59	121	122	70.0-155			0.869	25
Hexachloro-1,3-butadiene	3.75	4.62	4.65	123	124	70.0-145			0.717	25
Naphthalene	3.75	4.66	4.68	124	125	70.0-155			0.445	25
Allyl Chloride	3.75	3.97	4.06	106	108	70.0-130			2.19	25
2-Chlorotoluene	3.75	4.36	4.37	116	116	70.0-130			0.171	25
Methyl Methacrylate	3.75	3.97	4.03	106	107	70.0-130			1.63	25
Tetrahydrofuran	3.75	3.89	3.94	104	105	70.0-140			1.21	25
2,2,4-Trimethylpentane	3.75	4.04	4.08	108	109	70.0-130			1.04	25
Vinyl Bromide	3.75	4.15	4.22	111	112	70.0-130			1.49	25
Isopropylbenzene	3.75	4.34	4.32	116	115	70.0-130			0.511	25
(S) 1,4-Bromofluorobenzene				101	101	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3281018-3 01/22/18 10:34

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3281018-3 01/22/18 10:34

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
2-Propanol	U		0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	97.8			60.0-140

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281018-1 01/22/18 09:02 • (LCSD) R3281018-2 01/22/18 09:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.66	3.67	97.6	97.9	52.0-158			0.345	25
Propene	3.75	4.14	4.16	110	111	54.0-155			0.505	25
Dichlorodifluoromethane	3.75	4.24	4.32	113	115	69.0-143			1.96	25
1,2-Dichlorotetrafluoroethane	3.75	4.15	4.23	111	113	70.0-130			1.95	25
Chloromethane	3.75	4.21	4.24	112	113	70.0-130			0.558	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281018-1 01/22/18 09:02 • (LCSD) R3281018-2 01/22/18 09:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	4.04	4.10	108	109	70.0-130			1.38	25
1,3-Butadiene	3.75	3.73	3.70	99.5	98.7	70.0-130			0.764	25
Bromomethane	3.75	4.54	4.60	121	123	70.0-130			1.40	25
Chloroethane	3.75	4.24	4.30	113	115	70.0-130			1.48	25
Trichlorofluoromethane	3.75	4.26	4.34	114	116	70.0-130			1.83	25
1,1,2-Trichlorotrifluoroethane	3.75	4.34	4.38	116	117	70.0-130			0.988	25
1,1-Dichloroethene	3.75	4.16	4.20	111	112	70.0-130			1.08	25
1,1-Dichloroethane	3.75	4.12	4.18	110	111	70.0-130			1.48	25
Acetone	3.75	4.09	4.07	109	109	70.0-130			0.365	25
2-Propanol	3.75	4.14	4.19	110	112	66.0-150			1.18	25
Carbon disulfide	3.75	4.19	4.25	112	113	70.0-130			1.38	25
Methylene Chloride	3.75	3.94	4.01	105	107	70.0-130			1.88	25
MTBE	3.75	4.15	4.22	111	112	70.0-130			1.53	25
trans-1,2-Dichloroethene	3.75	4.15	4.18	111	112	70.0-130			0.731	25
n-Hexane	3.75	4.10	4.16	109	111	70.0-130			1.33	25
Vinyl acetate	3.75	4.37	4.42	116	118	70.0-130			1.32	25
Methyl Ethyl Ketone	3.75	4.29	4.33	114	115	70.0-130			0.930	25
cis-1,2-Dichloroethene	3.75	4.13	4.20	110	112	70.0-130			1.58	25
Chloroform	3.75	4.10	4.15	109	111	70.0-130			1.20	25
Cyclohexane	3.75	4.19	4.27	112	114	70.0-130			1.90	25
1,1,1-Trichloroethane	3.75	4.16	4.22	111	113	70.0-130			1.48	25
Carbon tetrachloride	3.75	4.21	4.27	112	114	70.0-130			1.44	25
Benzene	3.75	4.13	4.19	110	112	70.0-130			1.58	25
1,2-Dichloroethane	3.75	4.03	4.08	107	109	70.0-130			1.34	25
Heptane	3.75	4.09	4.16	109	111	70.0-130			1.54	25
Trichloroethylene	3.75	4.13	4.20	110	112	70.0-130			1.66	25
1,2-Dichloropropane	3.75	4.06	4.24	108	113	70.0-130			4.38	25
1,4-Dioxane	3.75	4.38	4.42	117	118	70.0-152			1.11	25
Bromodichloromethane	3.75	4.13	4.19	110	112	70.0-130			1.53	25
cis-1,3-Dichloropropene	3.75	4.25	4.32	113	115	70.0-130			1.61	25
4-Methyl-2-pentanone (MIBK)	3.75	4.17	4.25	111	113	70.0-142			1.70	25
Toluene	3.75	4.23	4.30	113	115	70.0-130			1.55	25
trans-1,3-Dichloropropene	3.75	4.28	4.33	114	116	70.0-130			1.21	25
1,1,2-Trichloroethane	3.75	4.16	4.23	111	113	70.0-130			1.64	25
Tetrachloroethylene	3.75	4.30	4.34	115	116	70.0-130			1.06	25
Methyl Butyl Ketone	3.75	4.24	4.35	113	116	70.0-150			2.42	25
Dibromochloromethane	3.75	4.19	4.27	112	114	70.0-130			1.76	25
1,2-Dibromoethane	3.75	4.12	4.20	110	112	70.0-130			2.04	25
Chlorobenzene	3.75	4.04	4.12	108	110	70.0-130			1.96	25
Ethylbenzene	3.75	4.36	4.44	116	118	70.0-130			1.62	25

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281018-1 01/22/18 09:02 • (LCSD) R3281018-2 01/22/18 09:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
m&p-Xylene	7.50	8.72	8.86	116	118	70.0-130			1.51	25
o-Xylene	3.75	4.39	4.45	117	119	70.0-130			1.37	25
Styrene	3.75	4.62	4.70	123	125	70.0-130			1.63	25
Bromoform	3.75	4.62	4.70	123	125	70.0-130			1.76	25
1,1,2,2-Tetrachloroethane	3.75	4.32	4.35	115	116	70.0-130			0.802	25
4-Ethyltoluene	3.75	4.58	4.65	122	124	70.0-130			1.57	25
1,3,5-Trimethylbenzene	3.75	4.53	4.62	121	123	70.0-130			2.06	25
1,2,4-Trimethylbenzene	3.75	4.53	4.60	121	123	70.0-130			1.59	25
1,3-Dichlorobenzene	3.75	4.69	4.78	125	127	70.0-130			1.96	25
1,4-Dichlorobenzene	3.75	4.78	4.88	127	130	70.0-130			2.11	25
Benzyl Chloride	3.75	4.87	4.97	130	133	70.0-144			2.09	25
1,2-Dichlorobenzene	3.75	4.61	4.70	123	125	70.0-130			1.93	25
1,2,4-Trichlorobenzene	3.75	4.79	4.92	128	131	70.0-155			2.63	25
Hexachloro-1,3-butadiene	3.75	4.86	4.94	130	132	70.0-145			1.61	25
Naphthalene	3.75	4.86	5.01	130	134	70.0-155			3.13	25
Allyl Chloride	3.75	4.17	4.21	111	112	70.0-130			0.952	25
2-Chlorotoluene	3.75	4.46	4.53	119	121	70.0-130			1.58	25
Methyl Methacrylate	3.75	4.10	4.17	109	111	70.0-130			1.75	25
Tetrahydrofuran	3.75	4.03	4.09	108	109	70.0-140			1.39	25
2,2,4-Trimethylpentane	3.75	4.18	4.22	111	113	70.0-130			1.02	25
Vinyl Bromide	3.75	4.33	4.39	115	117	70.0-130			1.46	25
Isopropylbenzene	3.75	4.43	4.49	118	120	70.0-130			1.41	25
(S) 1,4-Bromofluorobenzene				100	101	60.0-140				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3281017-2 01/22/18 10:16

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.0569	1.25
Allyl Chloride	U		0.0546	0.200
Benzene	U		0.0460	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0436	0.200
Bromoform	U		0.0786	0.600
Bromomethane	U		0.0609	0.200
1,3-Butadiene	U		0.0563	2.00
Carbon disulfide	U		0.0544	0.200
Carbon tetrachloride	U		0.0585	0.200
Chlorobenzene	U		0.0601	0.200
Chloroethane	U		0.0489	0.200
Chloroform	U		0.0574	0.200
Chloromethane	U		0.0544	0.200
2-Chlorotoluene	U		0.0605	0.200
Cyclohexane	U		0.0534	0.200
Dibromochloromethane	U		0.0494	0.200
1,2-Dibromoethane	U		0.0185	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0616	0.200
1,1-Dichloroethane	U		0.0514	0.200
1,1-Dichloroethene	U		0.0490	0.200
cis-1,2-Dichloroethene	U		0.0389	0.200
trans-1,2-Dichloroethene	U		0.0464	0.200
1,2-Dichloropropane	U		0.0599	0.200
cis-1,3-Dichloropropene	U		0.0588	0.200
trans-1,3-Dichloropropene	U		0.0435	0.200
1,4-Dioxane	U		0.0554	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Trichlorofluoromethane	U		0.0673	0.200
Dichlorodifluoromethane	U		0.0601	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0687	0.200
1,2-Dichlorotetrafluoroethane	U		0.0458	0.200
Heptane	U		0.0626	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
n-Hexane	U		0.0457	0.200
Isopropylbenzene	U		0.0563	0.200

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3281017-2 01/22/18 10:16

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0465	0.200
Methyl Butyl Ketone	U		0.0682	1.25
2-Butanone (MEK)	U		0.0493	1.25
4-Methyl-2-pentanone (MIBK)	U		0.0650	1.25
Methyl Methacrylate	U		0.0773	0.200
MTBE	U		0.0505	0.200
Naphthalene	U		0.154	0.630
2-Propanol	0.0973	U	0.0882	1.25
Propene	U		0.0932	0.400
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
Tetrachloroethylene	U		0.0497	0.200
Tetrahydrofuran	U		0.0508	0.200
Toluene	U		0.0499	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,1,1-Trichloroethane	U		0.0665	0.200
1,1,2-Trichloroethane	U		0.0287	0.200
Trichloroethylene	U		0.0545	0.200
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
2,2,4-Trimethylpentane	U		0.0456	0.200
Vinyl chloride	U		0.0457	0.200
Vinyl Bromide	U		0.0727	0.200
Vinyl acetate	U		0.0639	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
Ethanol	U		0.0832	0.630
(S) 1,4-Bromofluorobenzene	96.1			60.0-140

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281017-1 01/22/18 09:34 • (LCSD) R3281017-3 01/22/18 11:14

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethanol	3.75	3.90	3.87	104	103	52.0-158			0.739	25
Propene	3.75	3.72	3.61	99.2	96.2	54.0-155			3.06	25
Dichlorodifluoromethane	3.75	4.45	4.11	119	110	69.0-143			7.79	25
1,2-Dichlorotetrafluoroethane	3.75	4.24	4.17	113	111	70.0-130			1.74	25
Chloromethane	3.75	3.87	3.82	103	102	70.0-130			1.17	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281017-1 01/22/18 09:34 • (LCSD) R3281017-3 01/22/18 11:14

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Vinyl chloride	3.75	3.97	3.98	106	106	70.0-130			0.112	25
1,3-Butadiene	3.75	3.86	3.74	103	99.8	70.0-130			2.97	25
Bromomethane	3.75	4.05	4.55	108	121	70.0-130			11.7	25
Chloroethane	3.75	3.74	4.40	99.7	117	70.0-130			16.2	25
Trichlorofluoromethane	3.75	4.10	4.28	109	114	70.0-130			4.42	25
1,1,2-Trichlorotrifluoroethane	3.75	4.21	4.21	112	112	70.0-130			0.0109	25
1,1-Dichloroethene	3.75	4.00	3.93	107	105	70.0-130			1.77	25
1,1-Dichloroethane	3.75	3.92	3.91	105	104	70.0-130			0.254	25
Acetone	3.75	3.80	3.77	101	100	70.0-130			0.900	25
2-Propanol	3.75	3.81	3.77	101	100	66.0-150			1.03	25
Carbon disulfide	3.75	4.05	4.01	108	107	70.0-130			0.991	25
Methylene Chloride	3.75	3.71	3.65	99.0	97.2	70.0-130			1.77	25
MTBE	3.75	4.03	4.01	107	107	70.0-130			0.468	25
trans-1,2-Dichloroethene	3.75	3.96	3.94	106	105	70.0-130			0.376	25
n-Hexane	3.75	4.03	4.05	107	108	70.0-130			0.504	25
Vinyl acetate	3.75	3.89	3.82	104	102	70.0-130			1.95	25
Methyl Ethyl Ketone	3.75	4.04	4.07	108	109	70.0-130			0.830	25
cis-1,2-Dichloroethene	3.75	4.10	4.10	109	109	70.0-130			0.103	25
Chloroform	3.75	4.04	4.06	108	108	70.0-130			0.511	25
Cyclohexane	3.75	4.18	4.14	112	110	70.0-130			1.05	25
1,1,1-Trichloroethane	3.75	4.15	4.18	111	112	70.0-130			0.711	25
Carbon tetrachloride	3.75	4.16	4.21	111	112	70.0-130			1.17	25
Benzene	3.75	4.11	4.10	110	109	70.0-130			0.144	25
1,2-Dichloroethane	3.75	4.02	4.00	107	107	70.0-130			0.341	25
Heptane	3.75	4.00	3.96	107	105	70.0-130			1.12	25
Trichloroethylene	3.75	4.18	4.20	111	112	70.0-130			0.606	25
1,2-Dichloropropane	3.75	4.03	4.07	108	109	70.0-130			0.927	25
1,4-Dioxane	3.75	4.21	4.18	112	112	70.0-152			0.560	25
Bromodichloromethane	3.75	4.11	4.19	110	112	70.0-130			1.85	25
cis-1,3-Dichloropropene	3.75	4.14	4.12	110	110	70.0-130			0.527	25
4-Methyl-2-pentanone (MIBK)	3.75	3.88	3.80	103	101	70.0-142			2.01	25
Toluene	3.75	4.32	4.34	115	116	70.0-130			0.613	25
trans-1,3-Dichloropropene	3.75	4.15	4.21	111	112	70.0-130			1.30	25
1,1,2-Trichloroethane	3.75	4.25	4.25	113	113	70.0-130			0.0724	25
Tetrachloroethylene	3.75	4.45	4.53	119	121	70.0-130			1.93	25
Methyl Butyl Ketone	3.75	4.05	3.94	108	105	70.0-150			2.56	25
Dibromochloromethane	3.75	4.40	4.43	117	118	70.0-130			0.740	25
1,2-Dibromoethane	3.75	4.33	4.37	116	117	70.0-130			0.895	25
Chlorobenzene	3.75	4.42	4.39	118	117	70.0-130			0.671	25
Ethylbenzene	3.75	4.41	4.47	117	119	70.0-130			1.38	25

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281017-1 01/22/18 09:34 • (LCSD) R3281017-3 01/22/18 11:14

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
m&p-Xylene	7.50	8.93	9.03	119	120	70.0-130			1.07	25
o-Xylene	3.75	4.38	4.50	117	120	70.0-130			2.59	25
Styrene	3.75	4.59	4.67	122	124	70.0-130			1.73	25
Bromoform	3.75	4.58	4.66	122	124	70.0-130			1.86	25
1,1,2,2-Tetrachloroethane	3.75	4.24	4.34	113	116	70.0-130			2.31	25
4-Ethyltoluene	3.75	4.50	4.58	120	122	70.0-130			1.67	25
1,3,5-Trimethylbenzene	3.75	4.43	4.50	118	120	70.0-130			1.46	25
1,2,4-Trimethylbenzene	3.75	4.39	4.54	117	121	70.0-130			3.43	25
1,3-Dichlorobenzene	3.75	4.53	4.67	121	124	70.0-130			2.87	25
1,4-Dichlorobenzene	3.75	4.60	4.81	123	128	70.0-130			4.46	25
Benzyl Chloride	3.75	4.39	4.55	117	121	70.0-144			3.58	25
1,2-Dichlorobenzene	3.75	4.50	4.65	120	124	70.0-130			3.35	25
1,2,4-Trichlorobenzene	3.75	4.75	5.01	127	134	70.0-155			5.42	25
Hexachloro-1,3-butadiene	3.75	4.62	4.93	123	132	70.0-145			6.59	25
Naphthalene	3.75	4.72	4.92	126	131	70.0-155			4.18	25
Allyl Chloride	3.75	3.72	3.73	99.3	99.3	70.0-130			0.0352	25
2-Chlorotoluene	3.75	4.57	4.60	122	123	70.0-130			0.649	25
Methyl Methacrylate	3.75	4.21	4.13	112	110	70.0-130			1.96	25
Tetrahydrofuran	3.75	3.75	3.71	100	99.0	70.0-140			0.926	25
2,2,4-Trimethylpentane	3.75	4.17	4.10	111	109	70.0-130			1.64	25
Vinyl Bromide	3.75	3.98	4.54	106	121	70.0-130			13.3	25
Isopropylbenzene	3.75	4.48	4.56	119	121	70.0-130			1.65	25
(S) 1,4-Bromofluorobenzene				97.7	98.0	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3281374-3 01/23/18 09:54

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzyl Chloride	U		0.0598	0.200
Bromoform	U		0.0786	0.600
2-Chlorotoluene	U		0.0605	0.200
1,2-Dichlorobenzene	U		0.0603	0.200
1,3-Dichlorobenzene	U		0.0597	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
Ethylbenzene	U		0.0506	0.200
4-Ethyltoluene	U		0.0666	0.200
Hexachloro-1,3-butadiene	U		0.0656	0.630
Isopropylbenzene	U		0.0563	0.200
Naphthalene	U		0.154	0.630
Styrene	U		0.0465	0.200
1,1,2,2-Tetrachloroethane	U		0.0576	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,2,4-Trimethylbenzene	U		0.0483	0.200
1,3,5-Trimethylbenzene	U		0.0631	0.200
m&p-Xylene	U		0.0946	0.400
o-Xylene	U		0.0633	0.200
(S) 1,4-Bromofluorobenzene	95.9			60.0-140

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281374-1 01/23/18 08:32 • (LCSD) R3281374-2 01/23/18 09:13

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	3.75	4.59	4.54	122	121	70.0-130			1.03	25
m&p-Xylene	7.50	9.38	9.19	125	122	70.0-130			2.05	25
o-Xylene	3.75	4.67	4.56	125	122	70.0-130			2.38	25
Styrene	3.75	4.79	4.72	128	126	70.0-130			1.29	25
Bromoform	3.75	4.78	4.70	128	125	70.0-130			1.75	25
1,1,2,2-Tetrachloroethane	3.75	4.45	4.40	119	117	70.0-130			1.18	25
4-Ethyltoluene	3.75	4.73	4.64	126	124	70.0-130			1.89	25
1,3,5-Trimethylbenzene	3.75	4.72	4.60	126	123	70.0-130			2.54	25
1,2,4-Trimethylbenzene	3.75	4.71	4.57	126	122	70.0-130			3.18	25
1,3-Dichlorobenzene	3.75	4.81	4.70	128	125	70.0-130			2.34	25
1,4-Dichlorobenzene	3.75	4.91	4.81	131	128	70.0-130	J4		2.09	25
Benzyl Chloride	3.75	4.73	4.59	126	122	70.0-144			3.01	25
1,2-Dichlorobenzene	3.75	4.78	4.68	127	125	70.0-130			2.04	25
1,2,4-Trichlorobenzene	3.75	5.05	4.96	135	132	70.0-155			1.69	25



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3281374-1 01/23/18 08:32 • (LCSD) R3281374-2 01/23/18 09:13

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Hexachloro-1,3-butadiene	3.75	4.93	4.83	132	129	70.0-145			2.11	25
Naphthalene	3.75	4.98	4.90	133	131	70.0-155			1.54	25
2-Chlorotoluene	3.75	4.83	4.70	129	125	70.0-130			2.58	25
Isopropylbenzene	3.75	4.71	4.63	126	124	70.0-130			1.61	25
(S) 1,4-Bromofluorobenzene				99.5	99.6	60.0-140				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey-NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio-VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ^{1 4}	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

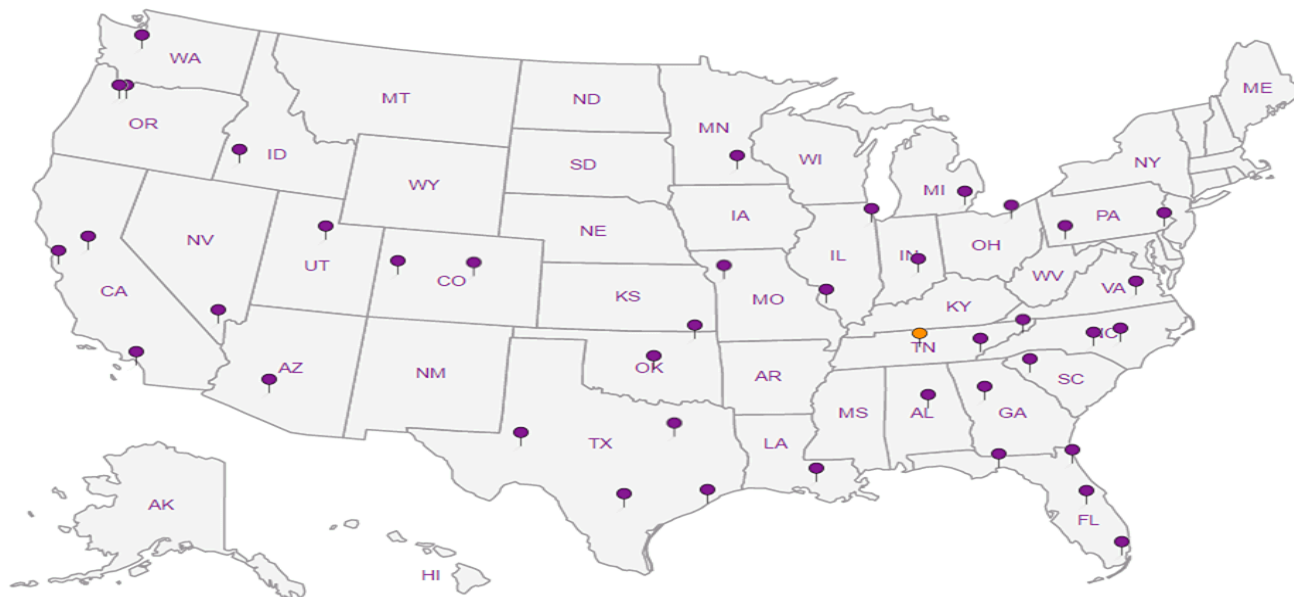
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold n/a Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.



GAIA Tech - Chicago, IL

135 S. LaSalle St, Ste 3500
Chicago, IL 60603

Billing Information:

Accounts Payable and PM
135 S. LaSalle St, Ste 3500
Chicago, IL 60603

Pres
Chk

Report to:
Larry Bertsch

Email To: larry.bertsch@rpsgroup.com

Project
Description: Melville, NY

City/State
Collected:

Phone: 312-541-4200
Fax: 312-541-0340

Client Project #
16785542000

Lab Project #
GAICIL-MELVILLE

Collected by (print):
Larry Bertsch

Site/Facility ID #
NY

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

No.
of
Cntrs

Immediately
Packed on Ice N

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	
SS-1 (sub-slab) (grab)		Air	-	7/18/18	1549-1619	1
SS-2 "		Air	-	7/18/18	1658-1728	1
SS-3 "		Air	-	7/19/18	802-832	1
SS-4 "		Air	-		1013-1044	1
SS-5 "		Air	-		1924-1551	1
SG-1 (soil gas) (grab)		Air	5'	7/18/18	1437-607	1
SG-2 "		Air	-	7/19/18	1137-1211	1
SG-3 "		Air	-		1254-1324	1

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Samples returned via:
UPS / FedEx / Courier

Tracking # 4442 5232 3856

pH Temp

Flow Other

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N
COC Signed/Accurate: ☒ Y ☐ N
Bottles arrive intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
If Applicable
VOA Zero Headspace: ☒ Y ☐ N
Preservation Correct/Checked: ☒ Y ☐ N

Relinquished by: (Signature)

Date: 7/19/18

Time: 1730

Received by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C
Bottles Received: 8

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 7/20/18
Time: 845

Hold:

Condition:
NCF / BK

Analysis / Container / Preservative

Metals (Lab Filter) 250mlHDPE-NoPres

PAHSIMLVID 40mlAmb-NoPres-WT

RCRA8 Metals 2ozClr-NoPres

SV8270PAHSIMD, TS 4ozClr-NoPres

TO-15 Summa

V8260C 2ozClr-NoPres

V8260C 40ml/NaHSO4/Syr/MeOH

V8260C 40mlAmb-HCl

V8260C 40mlAmb-HCl-Bik

Chain of Custody Page ___ of ___



A-B S-C-I-E-N-C-E-S

a subsidiary of

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# 964491
M190

Acctnum: GAICIL

Template: T131605

Prelogin: P635243

TSR: 104 - Jason Romer

PB: 1-12-18 cm

Shipped Via: FedEx Ground

Remarks Sample # (lab only)

-08

HOLD