Limited Phase II Subsurface Investigation Report

REPORT DATE: April 11, 2025 (revised July 2, 2025)

SUBJECT PROPERTY INFORMATION
Lowell Community Charter School
250-300 Jackson Street, 1/2 of Third, all of 4th, all of 5th Floors
Lowell, Massachusetts 01852

PROJECT INFORMATION

AEI Project Nos. 506716 and 510090

PREPARED FOR
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April 11, 2025 (revised July 2, 2025)

Emily Beaver
First Citizens Bank
4300 Six Forks Road
Raleigh, North Carolina 27609

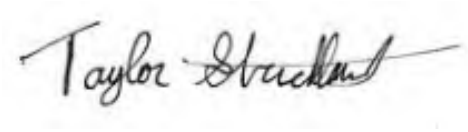
Subject: Limited Phase II Subsurface Investigation
250-300 Jackson Street, 1/2 of Third, all of 4th, all of 5th Floors
Lowell, Massachusetts 01852
AEI Project No. 506716

Dear Ms. Beaver,

This report presents the results of the Limited Phase II Subsurface Investigation conducted by AEI Consultants (AEI) at 250-300 Jackson Street, 1/2 of Third, all of 4th, all of 5th Floors, Lowell, Massachusetts ("subject property") to assess the recognized environmental condition identified in the Phase I Environmental Site Assessment report by AEI dated January 17, 2025. The investigation was performed in general accordance with the scope of services outlined in our proposal dated February 3, 2025 (AEI Proposal Number 152852), which was subsequently authorized on February 28, 2025.

AEI appreciates the opportunity to support this important project. If you have any questions, please do not hesitate to contact me.

Sincerely,



Taylor Strickland
National Client Manager
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1.0 PURPOSE

This report presents the results of the Limited Phase II Subsurface Investigation (Phase II) performed by AEI Consultants (AEI) at 250-300 Jackson Street, 1/2 of Third, all of 4th, all of 5th Floors, Lowell, Massachusetts (subject property). The investigation was conducted in general accordance with the scope of work presented in AEI's proposal number 152852 dated February 3, 2025, authorized by the Client on February 28, 2025.

The general purpose of this Phase II was to evaluate whether the subsurface has been materially impacted by the recognized environmental condition (REC) identified in the Phase I Environmental Site Assessment (ESA) prepared by AEI dated January 17, 2025. The subject property descriptions, background, investigation procedures, findings, summary, and conclusions are presented in the following sections.

2.0 SUBJECT PROPERTY DESCRIPTION AND BACKGROUND

Details on the subject property description and background are presented below as referenced in the January 17, 2025 Phase I ESA.

2.1 Subject Property Description

The subject property is located in a commercial and residential area of Lowell, Massachusetts. The subject property consists of approximately 1.6 acres of land that is improved with one five-story mixed-use building located constructed as slab-on-grade. The building is occupied by a school and various commercial businesses. The focus of this investigation was 250-300 Jackson Street, 1/2 of Third, all of 4th, all of 5th Floors. The remainder of the subject property is asphalt-paved parking and drive areas, playground and boiler plant.

The subject property appeared to be generally flat, with a topographic gradient toward the north and is situated at an elevation approximately 90 feet above mean sea level. Groundwater flow direction is inferred to follow the topographic gradient, flowing towards the north towards the Hamilton Canal located adjacent to the north of the property. The subject property location appears on Figure 1 – Topographic Map.

Refer to Section 4.1 below for additional information on the subject property subsurface conditions encountered during drilling.

2.2 Background

Based on the January 17, 2025 Phase I ESA, the following REC was identified by AEI:

- The subject property building was constructed in 1875 as part of Mill No 5 for Appleton Mills, a cotton textile mill with boiler house and engine room. The subject property operated as part of a textile mill and various shoe manufacturers until at least the 1960s. Sanborn maps indicate the western side of the property was used as a coal house, boiler

house and included a blake fuel pump for dispersion of petroleum products. Chemical use, storage and management, and waste streams associated with Appleton Mills and the shoe manufacturing companies are unknown. However, shoe production generally includes cutting of materials with a hydraulic press, die cutting, assembly, stitching, lasting, and bonding of the upper portion of the shoe to the outsole using heated glues. Cotton/textile manufacturing may have included fabric processing/dying which typically involves chemicals such as bleach, formaldehyde, pigments, catalysts, acids, and synthetic dyes containing chlorinated volatile organic compounds (cVOCs), petroleum, and metals to impart color-fastness, water resistance, and anti-wrinkle properties. The use and application of stain- and water-repellent chemicals are known to contain per- and polyfluoroalkyl substances (PFAS); however, the Client has requested PFAS not be included in this investigation.

As discussed in the Historic REC (HREC) section of the Phase I ESA, petroleum contamination was discovered during removal of four 20,000-gallon No 6 fuel oil underground storage tanks (USTs) from the southeastern portion of the subject property in 2009 which is addressed by Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Numbers (RTNs) 3- 0028616 and 3-0029573 and has achieved regulatory closure. Assessment activities conducted for RTNs 3-0028616 and 3- 0029573 were limited to extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH), and did not include laboratory parameters to measure for other potential contaminants of concern (COCs) including metals, PAHs, VOCs, and PFAS in the area of the mill or coal house or boiler room, all located cross or downgradient of the fuel oil USTs. The historical uses including textile and shoe manufacturing conducted from approximately 1875 until the 1960s (85 years) represent a REC and a potential VEC for the subject property.

3.0 FIELD INVESTIGATION AND OBSERVATIONS

Investigation efforts included the following:

- Advancement of five soil borings to a depth of 20 feet below ground surface (bgs) for the collection of soil samples;
- Installation of five temporary well points (TWP) for the collection of groundwater samples;
- Installation of five temporary sub-slab vapor points to collect sub-slab vapor samples; and,
- Collection of five indoor air samples and one outdoor/ambient air sample.

The boring/sample locations appear on Figure 2 – Sample Location Map and investigative activities are summarized below.

3.1 Health and Safety Plan

A health and safety plan was prepared to address potential hazards during the subsurface investigation, reviewed by on-site personnel, and maintained by the field crew for the duration of the investigation.

3.2 Utility Clearance

The public underground utility locator Massachusetts 811 was notified who, in turn, notified subscribing utility companies of the planned investigation work for underground utility locations to be marked at proposed boring locations. Private utility locating was conducted by Ground Penetrating Radar Systems (GPRS) of Boston, Massachusetts under subcontract to AEI to further identify and locate underground utilities in the areas of the proposed borings, and to shift boring locations, as appropriate. The geophysical investigation report is presented in Appendix A.

3.3 Drilling and Soil Sample Collection

On March 12, 2025, five soil borings were advanced on the subject property at the locations shown on Figure 2. The borings were advanced by New England Geotech, Inc. of Jamestown, Rhode Island using a direct push (DP) truck-mounted drill rig to collect soil and groundwater samples. The locations of the borings are listed below:

- Boring SB-1 was advanced beneath the asphalt to a total depth of 20 feet bgs on the southern side of the building in the former boiler house location;
- Boring SB-2 was advanced to a total depth of 20 feet bgs beneath the asphalt on the southern side of the building near the playground;
- Boring SB-3 was advanced to a total depth of 20 feet bgs beneath the grass in the northwestern portion of subject property along Jackson Street;
- Boring SB-4 was advanced to a total depth of 20 feet bgs beneath the grass in the northern portion of subject property along Jackson Street; and
- Boring SB-5 was advanced to a total depth of 20 feet bgs beneath the grass in the northeastern portion of subject property along Jackson Street;

The locations of the borings were chosen based on the results of the utility clearance and/or the geophysical survey and anticipated groundwater flow direction.

Field screening was performed using a calibrated photoionization device (PID) equipped with an electrodeless 10.6 electron volt (eV) ultraviolet lamp for detecting the presence of organic vapors in the soil samples collected. Using a decontaminated stainless-steel spoon, knife, or other appropriate device, a longitudinal score deep enough to expose a porous surface the length of the core or very small divots at six-inch intervals were made to expose a porous surface. Simultaneously, the PID probe was placed immediately above the lateral scoring, and the PID reading was recorded. There was no visual or olfactory evidence (i.e., soil discoloration or odor) of potentially impacted soils observed during the drilling activities. No elevated PID readings were observed in any of the soils screened.

As no visual or olfactory evidence, and no elevated PID field screening measurements were observed in the soil borings, soil samples SB-1 through SB-5 were collected one to two feet bgs. Soil samples were transferred and placed into clean, laboratory-supplied containers with preservatives as appropriate. After sealing, each sample was appropriately labeled, entered on the chain-of-custody documentation, and placed into an insulated shipping container with ice for transportation to a State of Massachusetts-certified laboratory for analysis.

3.4 Groundwater Sample Collection

On March 12, 2025, after encountering groundwater at 15 to 16 feet bgs in borings SB-1 through SB-5, a temporary well point (TWP) was installed in each of these boring locations to facilitate collection of a groundwater sample from each (designated as TW-1 through TW-5). The TWP materials consisted of one-inch diameter, polyvinyl chloride (PVC), 0.010-slot well screen and casing that was installed in the borehole to facilitate groundwater infiltration and groundwater sample collection from the borings. The temporary well materials remained in-place for approximately 30 minutes to allow groundwater infiltration for sample collection. During this time, sufficient amount of groundwater did infiltrate in each of the temporary wells to allow for groundwater sample collection.

Prior to the collection of groundwater from the specified locations, approximately three well volumes of water were purged from each temporary well utilizing a peristaltic pump.

After purging, a groundwater sample was collected in laboratory-supplied containers with preservatives, as appropriate. After sealing, each sample was appropriately labeled and recorded on chain-of-custody documentation in preparation for transfer to a State of Massachusetts-certified laboratory for analysis by placing them into an insulated shipping container with ice.

3.5 Boring Abandonment

Following completion of field activities and removal of well construction material and tooling, the boring locations were backfilled with soil cuttings and completed at the surface to match the surrounding conditions.

3.6 Sub-Slab Vapor Sample Collection

On March 13, 2025, AEI installed five temporary sub-slab vapor probes (SS-1 and SS-5). Due to a valve issue, SS-4 could not be analyzed.

The sub-slab vapor samples were collected from just beneath the concrete slab into laboratory-supplied Summa® canisters after attaching laboratory-calibrated flow controllers with vacuum gauges set at 200 mL per minute. New disposable polyethylene tubing was inserted into the core space just beneath the slab and sealed off where the tubing meets the ground surface with beeswax. A water dam was installed around the tubing and slab interface to ensure no “short circuiting” was occurring.

Prior to collecting each vapor sample, the integrity of the annular seal and sample train (including the connection to the Summa® canister) were confirmed by performing a shut-in test. Three volumes of air were purged from the probe, the initial vacuum shown on the gauge and the time were recorded; then the flow controller was opened to allow sample collection to begin. Sample collection was complete when only a slight vacuum remained the Summa® canister, this final vacuum was recorded, then the flow controller was closed.

The labels on the Summa® canisters were completed with the appropriate project information: the AEI project number, sample identification, date and final time of sample collection, sampler's name, initial and final vacuum readings. This information and sometimes additional information such as the laboratory identification of the Summa® canister and flow controller associated with each sample were entered on the laboratory's chain-of-custody documentation that accompanied the samples to the laboratory.

3.7 Air Sample Collection

On March 12, 2025, AEI collected five indoor air samples and one of outdoor/ambient air sample.

The air samples were collected from within the breathing zone, approximately 3 to 5 feet above ground surface. The indoor air sample was collected near the corresponding sub-slab vapor sample location. Air samples were collected in laboratory-supplied, individually certified, 6-Liter Summa® canisters using laboratory-calibrated flow controllers set to collect each sample over a period of 8-hours based on the commercial use of the Site.

Prior to beginning sample collection, a shut-in test was performed to confirm that the connection between the Summa® canister and flow controller were secure. A successful shut-in test ensures that only air passing through the regulator and filter is admitted into the Summa® canister. After the initial vacuum, date, time were recorded, sample collection commenced.

Sample collection was completed shortly before the designated sample time as determined by the calibrated flow controller. The final date, time, and vacuum were recorded. Canisters were sealed with a slight vacuum.

The samples were prepared by completing the tag attached to each Summa® canister with the requested information: the sample identification, the final date and time of sample completion, the sampler's name, the initial and final vacuum readings, and if required, the flow controller used with that canister. This information was also entered on the chain-of-custody documentation in preparation of transferring the samples to the laboratory for analysis.

During sample collection, AEI performed a walkthrough of the building to identify potential background sources of indoor air contamination prior to conducting air sampling. Key components of the building walkthrough include but are not limited to the following items: 1) identification of potential background sources of volatile organic compounds (VOCs); 2) assessment of the building construction (e.g., concrete slab, air flow); 3) identification of

points of potential vapor intrusion into the building; and 4) identification of possible sample. An indoor air survey is provided in Appendix C.

3.8 Decontamination Procedures and Investigation-Derived Waste

AEI personnel wore disposable Nitrile gloves during sample collection, changing gloves between sample locations. Down-hole equipment including sampling tubes, samplers, and hand tools were decontaminated prior to drilling each boring or were dedicated to a single boring.

No investigation-derived waste requiring regulated disposal or characterization was generated during the field activities.

3.9 Laboratory Analyses

The soil and groundwater samples were labeled and placed into insulated coolers containing ice then transferred under appropriate chain-of-custody documentation to Pace Analytical of Mount Juliet, Tennessee. Five soil samples and five groundwater samples were collected and analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs) using United States Environmental Protection Agency (US EPA) Testing Method 8260, polycyclic aromatic hydrocarbons (PAHs) via US EPA 8270, and Target Analyte List (TAL) metals via US EPA 6010/7410.

The five Summa® canisters containing the sub-slab vapor samples were placed into laboratory-supplied cartons with the flow controllers and submitted to the laboratory where they were analyzed for VOCs using US EPA Method TO-15. The five indoor air and one outdoor/ambient air sample were placed into laboratory-supplied cartons with the flow controllers and submitted to Pace, where they were placed “on hold” at the laboratory pending the results of the sub-slab vapor samples. Based on the results of the sub-slab vapor samples, one indoor air and one outdoor/ambient air sample were activated for naphthalene only.

Laboratory analytical reports with chain-of-custody documentation are provided in Appendix D.

4.0 FINDINGS

The findings of this investigation are summarized below.

4.1 Subsurface Conditions

Subsurface conditions observed during the drilling activities of borings indicated that soils underlaying the Site consisted primarily of fine-grain sand and gravel and fine grain silty clay to a depth of 20 feet bgs. Groundwater was encountered in the soil borings at approximately 15 to 16 feet bgs.

4.2 Analytical Results

For the purpose of providing context to the data obtained during this investigation, analytical results are compared to available regulatory screening levels. MassDEP has the responsibility for overseeing soil and groundwater cleanups which are managed under the Massachusetts Contingency Plan (MCP, 310 CMR 40.000). The results of this investigation were evaluated against applicable MCP reportable concentrations (RCs) for soil. RCs are applied to sites to evaluate if a release condition (impact) is present that warrants further investigation or action. RCS-1 are applicable to soil samples collected at all sites that are located at or within 500 feet of sensitive receptors such as residences, schools, or a sensitive environmental area like a wetland. RCS-2 is applied to all soil samples that are not obtained from category RCS-1 areas. RCGW-1 are applied to all groundwater samples obtained within a current drinking water source area of within a potential drinking water source area. RCGW-2 are applied to all groundwater samples not obtained from a RCGW-1 area. Reporting category RCGW-1 shall be selected whenever and wherever reasonable doubts exist over the selection of the appropriate groundwater Reportable Concentration category. According to the MassGIS Online MassMapper, the subject property is not located in a Non-Potential Drinking Water Source Area (NPDWSA).

Based on the use of the Site as a school serviced by public water, it appears the applicable criteria are RCS-1 criteria for soil and RCGW-2 for groundwater. RCS-2 is included for comparison purposes.

The sub-slab soil vapor results of this investigation were compared to applicable MassDEP Vapor Intrusion Guidance screening values. Results were evaluated against the Residential Sub-Slab Soil Gas Screening Values (MA-RSSGV) and Commercial/Industrial Sub-Slab Soil Gas Screening Values (MA-CISSGV).

The indoor air data was compared to the Indoor Air Threshold Values (IATVs) for residential and commercial/industrial properties published in the MassDEP Vapor Intrusion Guidance document (Policy #WSC-16-435).

Laboratory analytical reports with chain-of-custody documentation are presented in Appendix D.

4.2.1 Soil Sample Analytical Results

Table 1 presents a summary of the soil sample analytical results and comparison screening levels. The analytical results can be summarized as follows.

VOCs

- No TCL-VOCs were detected above their respective most stringent RCs in the soil samples collected and analyzed.

PAHs

- No PAHs were detected above their respective most stringent RCs in the soil samples collected and analyzed.

Metals

- Lead was detected in soil sample SB-2 at a concentration of 258 milligram per kilogram (mg/kg), which is above the RCS-1 of 200 mg/kg. Lead was detected in the other four samples at concentrations ranging from 3.59 to 25.7 mg/kg, which are below the most stringent RCs.
- No additional metals were detected above their respective most stringent RCs in the soil samples collected and analyzed.

4.2.2 Groundwater Sample Analytical Results

Table 2 presents a summary of the groundwater sample results and comparison screening levels. The analytical results can be summarized as follows. A "J" flag indicates the reported result is an estimate:

VOCs

- No TCL-VOCs were detected above RCGW-2 in the groundwater samples collected and analyzed.

PAHs

- No PAHs were detected above RCGW-2 in the groundwater samples collected and analyzed.

Metals

- No metals were detected above RCGW-2 in the groundwater samples collected and analyzed.

4.2.3 Sub-Slab Vapor Sample Analytical Results

Table 3 presents a summary of the sub-slab vapor sample analytical results and comparison screening levels. The analytical results can be summarized as follows:

- Naphthalene was detected in sub-slab vapor sample SS-2 at a concentration of 167 micrograms per cubic meter (µg/m^3), which is above the MA-RSSGV of 42 µg/m^3.
- Additional VOCs were detected in the sub-slab vapor samples, all at concentrations below their respective MA-RSSGV and MA-CISSGV.

4.2.4 Air Sample Analytical Reports

Table 3 presents a summary of the analytical results for the one of indoor air and one ambient/outdoor sample, along with their respective regulatory screening levels, where applicable. A summary of the analytical results is presented below:

- Naphthalene was not detected above the laboratory reporting detection limit (RDL) in either air sample; however, it should be noted that the RDL for naphthalene was 3.3 µg/m^3 while the commercial/industrial IATV is 2.7 µg/m^3 and the residential IATV is 0.6 µg/m^3.

5.0 SUMMARY AND CONCLUSIONS

AEI completed a Phase II at the subject property to evaluate whether the subsurface has been adversely impacted by the operations of the former cotton/textile manufacturing identified as a REC. Investigation efforts included the advancement of five soil borings to collect soil samples, the conversion of the five borings into temporary well points to collect groundwater samples, the installation of five sub-slab vapor points to collect soil vapor samples, and collection of five indoor air samples and one ambient/outdoor air sample. The investigation results can be summarized as follows:

- No TCL-VOCs or PAHs were detected above their respective most stringent RCs in the soil samples collected and analyzed.
- No TCL-VOCs, PAHs, or metals were detected above RCGW-2 in the groundwater samples collected and analyzed.
- Lead was detected in soil sample SB-2 at a concentration of 258 mg/kg, which is above the RCS-1 of 200 mg/kg.
- Naphthalene was detected in sub-slab vapor SS-2 at a concentration of 167 ug/m3, which is above the MA-RSSGV of 42 µg/m^3.
- While naphthalene was not detected in the air samples analyzed above the laboratory RDLs, the RDLs were higher than the residential and commercial IATVs.

Lead was detected beneath the asphalt at a concentration exceeding the MassDEP soil reporting limits for RCS-1 sites in boring SB-2. This finding constitutes a release condition requiring reporting to MassDEP in accordance with the MCP (310 CMR 40.0315(1)). The property owner should report the condition to MassDEP within 120-days of being informed of the release condition and may be required to perform additional investigation measures. AEI is prepared to assist with the preparation of notification forms and Licensed Site Professional (LSP) services. AEI can prepare a separate proposal for these items, as requested.

Sub-slab vapor samples collected from the building basement detected naphthalene above sub-slab soil gas screening values for residential properties. These soil gas screening values are guidelines used by MassDEP to identify if the vapor intrusion pathway is a concern. Based on the results summarized above, the sub-slab vapor results may suggest that the former cotton/textile manufacturing may be impacting the subsurface of the subject property. While naphthalene was not detected in the corresponding indoor air sample above the laboratory RDL, the RDL was above the commercial and residential IATVs, indicating although the vapor intrusion risk appears low, it cannot be concluded at this time whether vapor intrusion is a current concern. Therefore, based on the sensitive receptor use of the property as a school, periodic air sampling utilizing individual-certified cannisters and Selective Ion Monitoring (SIM) TO-15 analysis would be warranted to ensure the lack of a complete vapor intrusion pathway in the future.

6.0 REFERENCES

AEI, 2025, *Phase I Environmental Site Assessment, 250-300 Jackson Street, 1/2 of Third, all of 4th, all of 5th Floors, Lowell, Massachusetts 01852*, (AEI Project No. 503933), dated January 17.

MassDEP, 2024, *Massachusetts Contingency Plan 310 CMR 40.0000,* dated March 1.

MassDEP, 2016, *VAPOR INTRUSION GUIDANCE: SITE ASSESSMENT, MITIGATION AND CLOSURE* dated October 14.

7.0 REPORT LIMITATIONS AND RELIANCE

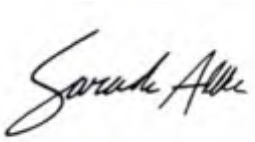
This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the subject property. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

Any conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work. No other warranty, either expressed or implied, has been made.

This investigation was prepared for the sole use and benefit of First Citizens Bank. Both verbal and written, whether in draft or final, are for the benefit of First Citizens Bank. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by First Citizens Bank. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

8.0 SIGNATURES

This document was prepared by, or under the direction of, the undersigned.



Saranda Alka
Project Manager

Ben Friedman
Senior Author

Gerry Caprario
Senior Author
(July 2, 2025 revisions)

FIGURES

LEGEND

Approximate Site Boundary

N

Source: USGS

TOPOGRAPHIC MAP

AEI

250-300 Jackson Street
Lowell, Massachusetts 01852

FIGURE 1
Project No. 506716

LEGEND

- Approximate Site Boundary
- Soil Boring/Temporary Well Location
- Sub-Slab Vapor Location
- Air Sample Location
- Estimated Groundwater Flow Direction

*Not a survey, all locations are approximate

N

SAMPLE LOCATION MAP

AEI

250-300 Jackson Street
Lowell, Massachusetts 01852

FIGURE 1
Project No. 506716

TABLES

TABLE 1
SOIL DATA SUMMARY
March 12, 2025
250-300 Jackson Street
Lowell, MA 01852
AEI Project Number 506716

SAMPLE ID:	RCS-1-24	RCS-2-24	SB-1	SB-2	SB-3	SB-4	SB-5
COLLECTION DATE:			3/12/2025	3/12/2025	3/12/2025	3/12/2025	3/12/2025
SAMPLE DEPTH (ft bgs):			1.0-2.0	1.0-2.0	1.0-2.0	1.0-2.0	1.0-2.0
Analyte	MCP Comparison Criteria (mg/kg)		Results (mg/kg)				
VOCs by US EPA Method 8260D							
ACETONE	6	50	ND	**0.0308 J**	**0.0449 J**	**0.028 J**	**0.0341 J**
Remaining TCL VOCs	Various	Various	ND	ND	ND	ND	ND
PAHs by US EPA Method 8270C-SIM							
ANTHRACENE	1000	3000	ND	**0.0672**	ND	**0.00367 J**	ND
ACENAPHTHENE	4	3000	ND	**0.039**	ND	ND	ND
ACENAPHTHYLENE	1	10	ND	**0.0102**	ND	ND	ND
BENZO(A)ANTHRACENE	7	40	ND	**0.161**	ND	**0.0244**	ND
BENZO(A)PYRENE	2	7	ND	**0.177**	ND	**0.023**	ND
BENZO(B)FLUORANTHENE	7	40	ND	**0.236**	ND	**0.0332**	ND
BENZO(G,H,I)PERYLENE	1000	3000	ND	**0.127**	ND	**0.0209**	ND
BENZO(K)FLUORANTHENE	70	400	ND	ND	ND	**0.0115**	ND
CHRYSENE	70	400	ND	**0.135**	ND	**0.0219**	ND
DIBENZ(A,H)ANTHRACENE	0.7	4	ND	**0.0266 J**	ND	ND	ND
FLUORANTHENE	1000	3000	ND	**0.415**	ND	**0.0472**	ND
FLUORENE	1000	3000	ND	**0.0327**	ND	ND	ND
INDENO(1,2,3-CD)PYRENE	7	40	ND	**0.136**	ND	**0.0225**	ND
NAPHTHALENE	4	20	ND	**0.0325**	ND	ND	ND
PHENANTHRENE	10	1000	ND	**0.352**	ND	**0.0158**	ND
PYRENE	1000	3000	ND	**0.417**	ND	**0.0429**	ND
1-METHYLNAPHTHALENE	--	--	ND	**0.0123 J**	ND	ND	ND
2-METHYLNAPHTHALENE	0.7	80	ND	**0.0153 J**	ND	ND	ND
Remaining PAHs	Various	Various	ND	ND	ND	ND	ND
TAL Metals by US EPA Method 6010D/7410							
ALUMINUM	--	--	**7270**	**5550**	**6420**	**3680**	**6770**
ARSENIC	20	20	ND	**5.11**	**3.9**	**2.73**	**6.08**
BARIUM	1000	3000	**36.6**	**114**	**19**	**19.7**	**17**
BERYLLIUM	90	200	**0.288 J**	**0.361**	**0.253**	**0.172 J**	**0.296**
CADMIUM	70	100	**0.174 J**	**0.452 J**	**0.189 J**	**0.124 J**	**0.116 J**
CALCIUM	--	--	**2080**	**1220**	**896**	**2000**	**1320**
CHROMIUM	100	200	**10.8**	**12.8**	**8.89**	**8.74**	**11.3**
COBALT	500	5000	**2.29 B**	**4.48**	**2.97**	**2.99**	**3.06**
COPPER	1000	10000	**3.48**	**37.8**	**3.49**	**7.92**	**8.45**
IRON	--	--	**4170**	**12700**	**4990**	**4300**	**5890**
LEAD	200	600	**5.3**	**258**	**3.59**	**25.7**	**11.2**
MAGNESIUM	--	--	**1450**	**1670**	**1290**	**1320**	**1690**
MANGANESE	--	--	**53.2**	**202**	**60.8**	**84.6**	**91**
NICKEL	600	1000	**5.93**	**11.5**	**6.27**	**7.58**	**9.83**
POTASSIUM	--	--	**798**	**614**	**639**	**776**	**768**
SODIUM	--	--	**291 B**	**104 B J**	**362 B**	**166 B**	**203 B**
VANADIUM	400	700	**8.91**	**12.3**	**8.67**	**35.4**	**382**
ZINC	1000	3000	**17.3**	**98.7**	**73.4**	**17.9**	**12.7**
MERCURY	20	30	ND	**5.11**	ND	ND	**0.0806**
Remaining Metals	Various	Various	ND	ND	ND	ND	ND

Notes:

All values presented are in units of milligram per killogram (mg/kg).

TCL VOCs	Target Compound List Volatile Organic Compounds
PAHs	Polycyclic Aromatic Hydrocarbons
--	No comparison criteria
ND	Not detected above laboratory method detection limit.
J	The reported result is an estimate
B	The same analyte is found in the associated blank
Bold	Analyte detection
Highlight	Concentration exceeds RCS-1
MCP	Massachusetts Contingency Plan
RCS-1-24	MCP 2024 RCS-1 Reportable Concentrations Criteria effective March 1, 2024.
RCS-2-24	MCP 2024 RCS-2 Reportable Concentrations Criteria effective March 1, 2024.

TABLE 2
GROUNDWATER DATA SUMMARY
March 12, 2025
250-300 Jackson Street
Lowell, MA 01852
AEI Project Number 506716

SAMPLE ID:	RCGW-2-24	TW-1	TW-2	TW-3	TW-4	TW-5
COLLECTION DATE:		3/12/2025	3/12/2025	3/12/2025	3/12/2025	3/12/2025
Analyte	Comparison Criteria (ug/L)	Results (ug/L)				
VOCs by US EPA Method 8260D						
BENZENE	1	**0.000188 J**	ND	**0.000249 J**	ND	ND
CARBON DISULFIDE	10	ND	**0.000203 J**	ND	ND	ND
CIS-1,2-DICHLOROETHENE	0.02	**0.00262**	ND	**0.00245**	ND	**0.00264**
TRANS-1,2-DICHLOROETHENE	0.08	**0.00132**	ND	**0.0013**	ND	**0.00119**
METHYL TERT-BUTYL ETHER	5	**0.000122 J**	ND	ND	ND	ND
TRICHLOROETHENE	0.005	**0.00236**	ND	**0.00227**	ND	**0.00225**
NAPHTHALENE	0.7	ND	ND	ND	ND	ND
Remaining TCL VOCs	Various	ND	ND	ND	ND	ND
PAHs by US EPA Method 8270C-SIM						
ANTHRACENE	0.03	**0.0000488 J**	ND	**0.0000446 J**	**0.00282**	**0.000742**
ACENAPHTHENE	6	**0.000112**	ND	**0.0000784**	**0.00149**	**0.000623**
ACENAPHTHYLENE	0.04	**0.000114**	ND	**0.0000684**	**0.000529**	**0.000154**
BENZO(A)ANTHRACENE	1	ND	ND	ND	**0.0064**	**0.00166**
BENZO(A)PYRENE	0.5	ND	ND	ND	**0.00588**	**0.00149**
BENZO(B)FLUORANTHENE	0.4	ND	ND	ND	**0.00686**	**0.00178**
BENZO(G,H,I)PERYLENE	0.02	ND	ND	ND	**0.00323**	**0.000791**
BENZO(K)FLUORANTHENE	0.1	ND	ND	ND	**0.00279**	**0.000595**
CHRYSENE	0.07	ND	ND	ND	**0.00675**	**0.00129**
DIBENZ(A,H)ANTHRACENE	0.04	ND	ND	ND	**0.000756**	**0.000205**
FLUORANTHENE	0.2	**0.0000481 J**	ND	**0.0000605 J**	**0.016**	**0.00391**
FLUORENE	0.04	**0.000216**	ND	**0.000154**	**0.000753**	**0.000244**
INDENO(1,2,3-CD)PYRENE	0.1	ND	ND	ND	**0.00382**	**0.000966**
NAPHTHALENE	0.7	**0.00168**	ND	**0.000796**	**0.00119 J**	**0.000632**
PHENANTHRENE	10	**0.000363**	**0.000211 J**	**0.000329**	**0.013**	**0.00342**
PYRENE	0.02	**0.0000396 J**	**0.0000904 J**	**0.0000504**	**0.0115**	**0.00285**
1-METHYLNAPHTHALENE	--	**0.000833**	ND	**0.00049**	ND	**0.00024 J**
2-METHYLNAPHTHALENE	2	**0.000749**	ND	**0.000478**	ND	**0.000196 J**
Remaining PAHs	Various	ND	ND	ND	ND	ND
TAL Metals by US EPA Method 6010D/7410						
ALUMINUM,DISSOLVED	--	**0.438**	**0.237**	**0.113**	**0.0191 J**	**0.0294 J**
ANTIMONY,DISSOLVED	8	**0.00244 J**	**0.00189 J**	**0.000905 J**	**0.000733 J**	**0.00182 J**
ARSENIC,DISSOLVED	0.9	**0.000572 J**	**0.00132 J**	**0.00178 J**	**0.00188 J**	**0.0173**
BARIUM,DISSOLVED	50	**0.0194**	**0.0319**	**0.11**	**0.104**	**0.0362**
CADMIUM,DISSOLVED	0.004	ND	**0.000167 J**	**0.000136 J**	**0.000171 J**	ND
CALCIUM,DISSOLVED	--	**27.1**	**41.1**	**129**	144	**65**
CHROMIUM,DISSOLVED	0.3	ND	**ND**	ND	ND	**0.00389**
COPPER,DISSOLVED	100	**0.00386 J**	**0.00511**	**0.0087**	**0.0068**	**0.0129**
COBALT,DISSOLVED	50	**0.000376 J**	**0.00154 J**	**0.00232**	**0.00377**	**0.000296 J**
IRON,DISSOLVED	--	**0.21**	**0.147**	**0.0437 J**	ND	**0.0359 J**
MAGNESIUM,DISSOLVED	--	**3.25**	**5.44**	**17.9**	**17.2**	**9.81**
MANGANESE,DISSOLVED	--	**0.102**	**0.79**	**0.802**	**0.803**	**0.00351 J**
NICKEL,DISSOLVED	0.2	**0.00152 J**	**0.00319**	**0.00574**	**0.00778**	**0.00156 J**
POTASSIUM,DISSOLVED	--	**4.62**	**8.54**	**18.2**	**18.9**	**22.2**
SELENIUM,DISSOLVED	0.1	**0.000645 J**	**0.000955 J**	**0.00154 J**	**0.00251**	**0.00302**
SODIUM,DISSOLVED	--	**95**	**150**	**390**	**391**	**455**
VANADIUM,DISSOLVED	4	**0.00133 J**	**0.00776**	**0.0133**	**0.0371**	**0.268**
ZINC,DISSOLVED	0.9	ND	**0.00491 J**	ND	ND	ND
Remaining Metals	Various	ND	ND	ND	ND	ND

Notes:

All values presented are in units of micrograms per Liter (ug/L).

TCL VOCs	Target Compound List Volatile Organic Compounds
PAHs	Polycyclic Aromatic Hydrocarbons
--	No comparison criteria
ND	Not detected above laboratory method detection limit.
J	The reported result is an estimate
B	The same analyte is found in the associated blank
Bold	Analyte detection
Highlight	Concentration exceeds RCGW-2
MCP	Massachusetts Contingency Plan
RCGW-2-24	MCP 2024 RCGW Reporting Category 2 for Groundwater effective March 1, 2024.

TABLE 3
SUB SLAB VAPOR AND AIR DATA SUMMARY
March 13, 2025
250-300 Jackson Street
Lowell, MA 01852
AEI Project Number 506716

SAMPLE ID:	MA-CISSGV	MA-RSSGV	SS-1	SS-2	SS-3	SS-5	MA-CISSGV	MA-RSSGV	IA-2	AA-1
MATRIX			Soil Gas	Soil Gas	Soil Gas	Soil Gas			Air	Air
COLLECTION DATE:			3/13/2025	3/13/2025	3/13/2025	3/13/2025			3/13/2025	3/13/2025
Analyte	MassDEP Vapor Intrusion Guidance (µg/m3)		Results (µg/m3)				MassDEP Indoor Air Threshold Values (µg/m3)		Results (µg/m3)	
VOCs by US EPA Method TO-15										
ACETONE	50000	6400	**48.2**	**172**	**25**	**1530**	NT	NT	NT	NT
BENZENE	800	160	**25**	**104**	**2.16**	**3.74**	NT	NT	NT	NT
1,3-BUTADIENE	--	--	ND	**10.3**	ND	ND	NT	NT	NT	NT
CARBON DISULFIDE	--	--	**2.89**	**23.9**	**6.91**	**6.97**	NT	NT	NT	NT
CHLOROBENZENE	3100	160	ND	ND	**3.01**	ND	NT	NT	NT	NT
CHLOROMETHANE	--	--	**1.22**	**1.92**	**1.35**	**1.98**	NT	NT	NT	NT
CYCLOHEXANE	--	--	**0.95**	**16.9**	ND	**1.32**	NT	NT	NT	NT
ETHANOL	--	--	**87.1**	**137**	**65.2**	**15.9**	NT	NT	NT	NT
ETHYLBENZENE	62000	520	**2.73**	**6.46**	ND	ND	NT	NT	NT	NT
TRICHLOROFLUOROMETHANE	--	--	**1.52**	**1.21**	**1.2**	**1.19**	NT	NT	NT	NT
DICHLORODIFLUOROMETHANE	--	--	**2.17**	**2.23**	**2.21**	**2.16**	NT	NT	NT	NT
HEPTANE	--	--	**1.25**	**2.78**	ND	**1.49**	NT	NT	NT	NT
N-HEXANE	--	--	ND	**2.92**	ND	ND	NT	NT	NT	NT
ISOPROPYLBENZENE	--	--	ND	ND	**2.27**	ND	NT	NT	NT	NT
METHYLENE CHLORIDE	37000	770	**18.8**	**1.89**	**0.726**	**0.74**	NT	NT	NT	NT
2-BUTANONE (MEK)	310000	850	**5.07**	**6.99**	ND	**56.3**	NT	NT	NT	NT
METHYL METHACRYLATE	--	--	ND	**1.46**	ND	ND	NT	NT	NT	NT
NAPHTHALENE	190	42	ND	**167**	**4.17**	ND	2.7	0.6	<3.3	<3.3
2-PROPANOL	--	--	**14.3**	**9.34**	**8.09**	**18.5**	NT	NT	NT	NT
PROPENE	--	--	**5.82**	**47.5**	ND	**10.1**	NT	NT	NT	NT
STYRENE	1400	95	ND	**3.14**	ND	ND	NT	NT	NT	NT
TETRACHLOROETHENE	290	98	**4.56**	**4.73**	ND	ND	NT	NT	NT	NT
TETRAHYDROFURAN	--	--	**2.13**	ND	ND	ND	NT	NT	NT	NT
TOLUENE	310000	3800	**14.8**	**86.6**	ND	**10.8**	NT	NT	NT	NT
1,1,1-TRICHLOROETHANE	310000	210	ND	**2.59**	ND	ND	NT	NT	NT	NT
TRICHLOROETHENE	120	28	**11.3**	ND	ND	ND	NT	NT	NT	NT
1,2,4-TRIMETHYLBENZENE	--	--	**0.987**	**8.49**	ND	ND	NT	NT	NT	NT
1,3,5-TRIMETHYLBENZENE	--	--	ND	**6.72**	ND	ND	NT	NT	NT	NT
XYLENES, TOTAL	6200	1400	**18.5**	**79.9**	ND	ND	NT	NT	NT	NT
M&P-XYLENE	--	--	**12.7**	**46.8**	ND	ND	NT	NT	NT	NT
O-XYLENE	--	--	**5.77**	**32.9**	ND	ND	NT	NT	NT	NT
1,4-BROMOFLUOROBENZENE	--	--	**27.3**	**28.2**	**26.9**	**27.2**	NT	NT	NT	NT
ALL OTHER VOCS	Various	Various	ND	ND	ND	ND	NT	NT	NT	NT

Notes:

VOC	Volatile Organic Compounds
Bold	Analyte detection
Highlight	Exceedance in Residential Sub-slab Soil Gas Screening Values
--	No comparison criteria
NT	Analyte is a not a target for this analysis
ND	Not detected above laboratory method detection limit.
MA-CISSGV	Commercial/Industrial Sub-slab Soil Gas Screening Values (2016) Criteria per MassDEP Vapor Intrusion Guidance, Policy #WSC-16-435, October 14, 2016.
MA-RSSGV	Residential Sub-slab Soil Gas Screening Values (2016) Criteria per MassDEP Vapor Intrusion Guidance, Policy #WSC-16-435, October 14, 2016.

APPENDIX A
Geophysical Survey Report

JOB SUMMARY REPORT

Order Number:	Work Order #758835	**Job Date:**	Mar 11, 2025 5:20:00 PM
Customer:	11170 [CTN] AEI ARCHITECTURAL ENVIRONMENTS INC : AEI CONSULTANTS - WALNUT CREEK CA	**Billing Address:**	AEI CONSULTANTS CORPORATE AP DEPT ATTN ACCOUNTING 2500 CAMINO DIABLO WALNUT CREEK CA 94597 United States

JOB DETAILS

Jobsite Location	300 Jackson Street, Lowell, Massachusetts, 01852
Work Order Number	Work Order #758835
Job Number	
PO Number	396610

GPRS Project Manager: Timothy Scotti

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS project manager on this project.

EQUIPMENT USED

The following equipment was used on this project:

- **Concrete GPR Antenna:** This GPR Antenna is handheld and rolls over the surface. The device displays scan data on a screen, and the operator marks detected objects on the surface in real-time. The antenna needs a reasonably smooth, unobstructed surface for scanning and cannot scan within 2”-4” of obstructions such as walls and metal tracks. Ideally, the client removes obstacles such as these before our work begins. The total effective scan depth can be as much as 18” or more with this antenna but can vary depending on the concrete conditions, composition, and other factors such as the spacing of the reinforcing. Depth accuracy depends on obtaining a precise depth calibration for the concrete. This device does not emit harmful radiation and can be safely operated while people are in close proximity. For more information, please visit: Link
- **Underground GPR Antenna:** This GPR Antenna uses frequencies ranging from 250 MHz to 450 MHz and is mounted in a stroller frame that rolls over the surface. Data is displayed on a screen and marked in the field in real time. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the efficacy of GPR. The total effective scan depth can be as much as 8’ or more with this antenna but can vary widely depending on the soil conditions and composition. Some soil types, such as clay, may limit maximum depths to 3’ or less. As depth increases, targets must be larger to be detected, and non-metallic targets can be challenging to locate. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **EM Pipe Locator:** Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. For more information, please visit: Link
- **GPS:** This handheld unit offers accuracy down to 4 inches; however, the accuracy achieved will depend on the satellite environment at the time of collection and is not considered survey-grade. Features can be collected as points, lines, or areas and then exported as a KML/KMZ or overlaid on a CAD drawing. For more information, please visit: Link

JOB SUMMARY REPORT

WORK PERFORMED

CORE DRILLING	
Client Provided Drawings	No
Scope of Work	Attempt to locate all possible obstructions around 5 (5) vapor pin locations.
Quantity of Floor Cores / Areas	5
Approximate Slab Thickness (in)	6
Approximate GPR Effective Depth (in)	8
Slab Type	- Slab-on-Grade
Marking Medium	- Crayon
Green Box Provided	No
Results Notes	GPRS found no evidence of obstructions near the scanned locations. The max GPR visibility was (8”) and this was consistent throughout. Slab inside of charter schools was consistently 6” thick with wire mesh present. The slab inside of the coal bin was 6” thick with no reinforcement detected. Please note there are some items that may not carry a EM signal and are not conductive, such as: plastic pipes, concrete pipes, clay pipes, asbestos pipes...etc. If GPRS cannot see these items with GPR and an item cannot carry orproduce a EM signal these items are undetectable. GPRS recommends you employ employ caution within 2-4” of all marked utilities and hand auger when possible. GPRS recommends potholing each marked utility for verification of utility type, location and depth. It is recommended to refer to plans, or call 811 for more information regarding any site utilities. Stay within marked scan boundaries when drilling and use caution when approaching and drilling past marked maximum effective GPR penetration of each scan area.

JOB SUMMARY REPORT

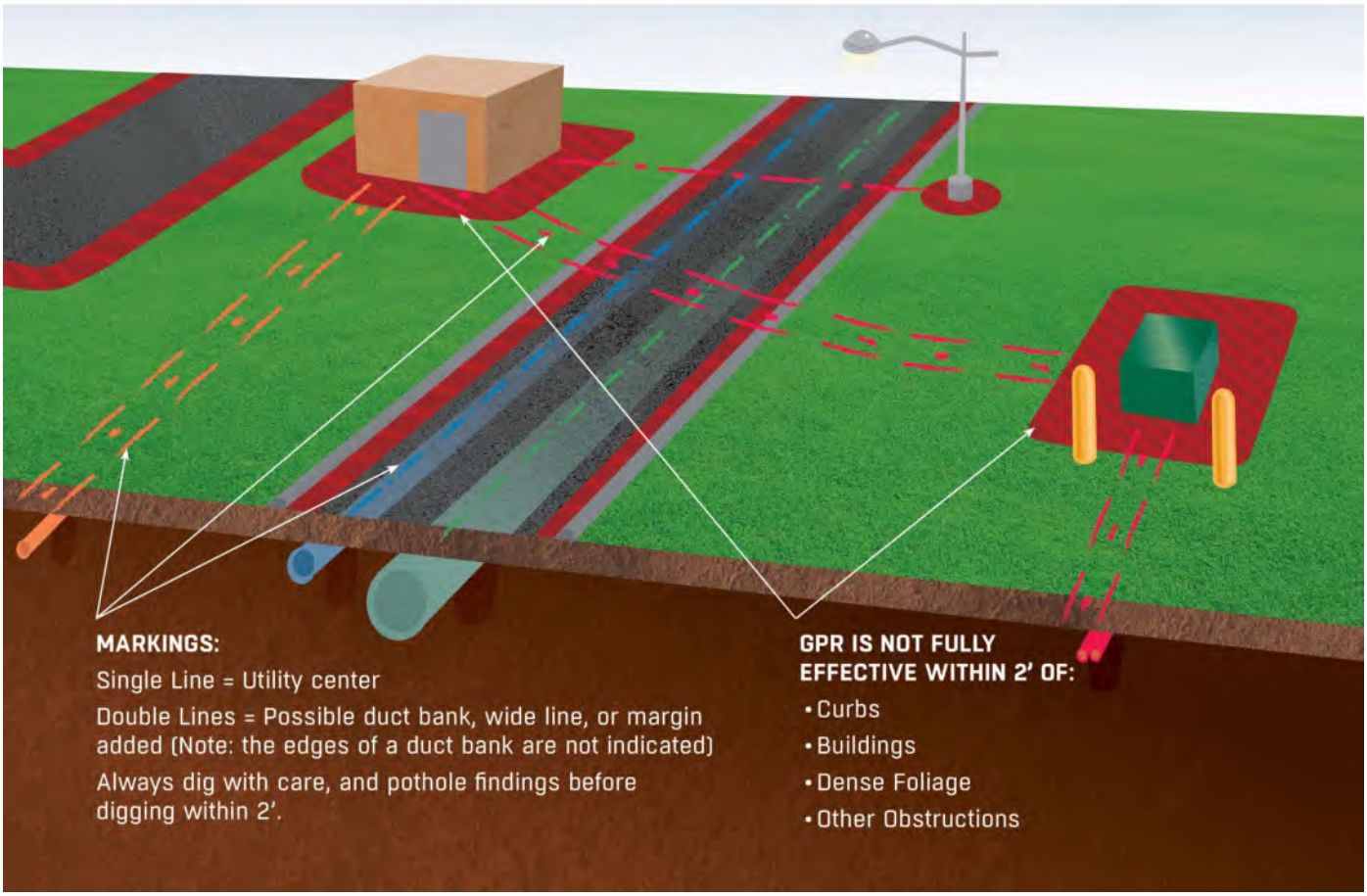
UNDERGROUND UTILITY	
Client Provided Drawings	No
Client completed 811 locate request	Yes
Scope of Work	Scan for and mark all locatable utilities around (5) soil boring locations. Client is drilling to water table.
Soil Borings (qty)	5
Approximate GPR Effective Depth (ft)	3
Utilities Located	- Communication - Natural Gas - Sanitary Sewer - Unknown
Marking Medium	- Spray Paint
Results Notes	GPRS found evidence of unknown lines, communications, gas and sewer near the soil boring locations. The max GPR visibility was between 2'-3' and this varied across all boring locations Please note there are some items that may not carry a EM signal and are not conductive, such as: plastic pipes, concrete pipes, clay pipes, asbestos pipes...etc. If GPRS cannot see these items with GPR and an item cannot carry or produce a EM signal these items are undetectable. GPRS recommends you employ caution within 2' of all marked utilities and hand auger when possible. GPRS recommends potholing each marked utility for verification of utility type, location and depth. It is recommended to refer to plans, or call 811 for more information.

JOB SUMMARY REPORT

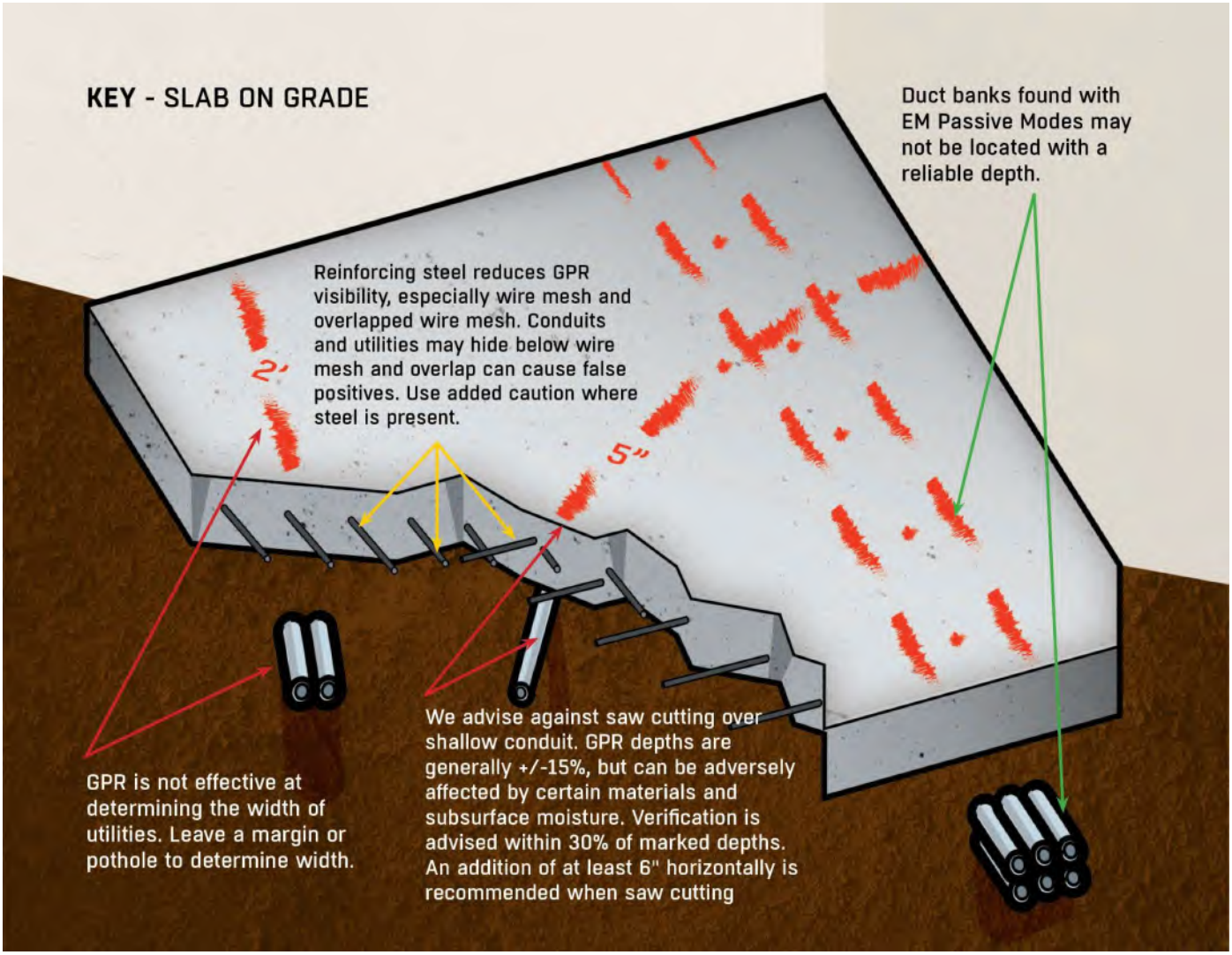
SUPPLEMENTAL INFORMATION

COMMON UTILITY LOCATING LIMITATIONS

There are many limitations to locating utilities, due to a variety of factors, with several more common examples illustrated here.



JOB SUMMARY REPORT



JOBSITE IMAGES

Jobsite Photo #1

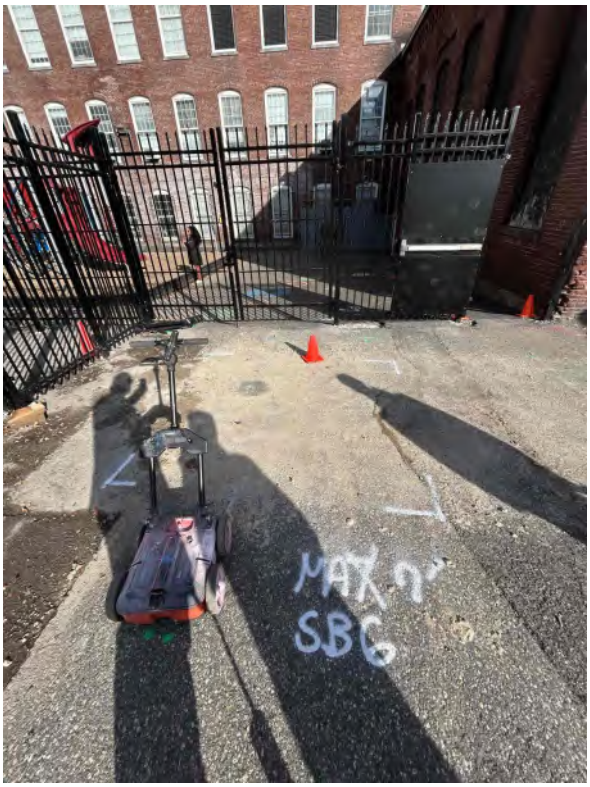
Jobsite Photo #2

Jobsite Photo #3

Jobsite Photo #4

Jobsite Photo #5

Jobsite Photo #6



Jobsite Photo #7

Jobsite Photo #8

Jobsite Photo #9

Jobsite Photo #10

Jobsite Photo #11

JOB SUMMARY REPORT

Jobsite Photo #12

CONTACT / SIGNATURE INFORMATION

Contact Information

Contact Name	Saranda Alka	**Email**	salka@aeiconsultants.com

TERMS & CONDITIONS

http://www.gprsinc.com/termsandconditions.html

APPENDIX B
Boring Logs

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94596
Telephone: 925-746-6000
Fax: 925-746-6099

BORING NUMBER SB-1

CLIENT First Citizens Bank
PROJECT NAME 250-300 Jackson St, 1/2 of Third, all of 4th, all of 5th Floors
PROJECT NUMBER 506726
PROJECT LOCATION Lowell, Massachusettes
DATE STARTED 3/12/25 **COMPLETED** 3/12/25
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR EPI
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY S.Alka **CHECKED BY** B.Friedman
AT END OF DRILLING 15.34 ft
NOTES converted to TW-1
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						Casing Type: PVC
					0.2 ASPHALT	
					SAND, brown to dark brown, with gravel and silt	
	SB-1		0			
			0			
5			0			
			0			
			0			
10			0		10.0	
					SAND, brown to tan, trace silt	
			0			
			0			
15			0			
			0			
			0			
20					20.0	

Bottom of borehole at 20.0 feet.

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94596
Telephone: 925-746-6000
Fax: 925-746-6099

BORING NUMBER SB-2

CLIENT First Citizens Bank
PROJECT NAME 250-300 Jackson St, 1/2 of Third, all of 4th, all of 5th Floors
PROJECT NUMBER 506726
PROJECT LOCATION Lowell, Massachusettes
DATE STARTED 3/12/25 **COMPLETED** 3/12/25
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR EPI
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY S.Alka **CHECKED BY** B.Friedman
AT END OF DRILLING 15.07 ft
NOTES converted to TW-2
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						Casing Type: PVC
					0.2 ASPHALT	
					SAND, brown, with gravel, trace silt	
	SB-2		0			
			0			
5			0		5.0	
			0		SAND, dark brown, trace gravel	
			0			
10			0			
			0		12.0	
					SAND, tan, trace silt	
			0			
15			0			
			0			
			0			
20					20.0	

Bottom of borehole at 20.0 feet.

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94596
Telephone: 925-746-6000
Fax: 925-746-6099

BORING NUMBER SB-3

CLIENT First Citizens Bank
PROJECT NAME 250-300 Jackson St, 1/2 of Third, all of 4th, all of 5th Floors
PROJECT NUMBER 506726
PROJECT LOCATION Lowell, Massachusettes
DATE STARTED 3/12/25 **COMPLETED** 3/12/25
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR EPI
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY S.Alka **CHECKED BY** B.Friedman
AT END OF DRILLING 15.83 ft
NOTES converted to TW-3
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						Casing Type: PVC
					0.2 ASPHALT	
					SAND, brown to light brown, trace silt and gravel	
	SB-4		0			
			0			
5			0			
			0			
			0			
			0			
10			0		10.0	
					SAND, brown to tan, trace clay	
			0			
			0			
15			0			
			0			
			0			
20					20.0	

Bottom of borehole at 20.0 feet.

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94596
Telephone: 925-746-6000
Fax: 925-746-6099

BORING NUMBER SB-4

CLIENT First Citizens Bank
PROJECT NAME 250-300 Jackson St, 1/2 of Third, all of 4th, all of 5th Floors
PROJECT NUMBER 506726
PROJECT LOCATION Lowell, Massachusettes
DATE STARTED 3/12/25 **COMPLETED** 3/12/25
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR EPI
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY S.Alka **CHECKED BY** B.Friedman
AT END OF DRILLING 16.01 ft
NOTES converted to TW-4
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						Casing Type: PVC
					0.2 ASPHALT	
					SAND, brown to dark brown, with gravel	
	SB-4		0			
			0			
5			0			
			0			
			0			
10			0			
			0			
			0			
15			0		15.0 SAND, brown to tan, trace clay	
			0			
			0			
20			0		20.0	

Bottom of borehole at 20.0 feet.

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94596
Telephone: 925-746-6000
Fax: 925-746-6099

BORING NUMBER SB-5

CLIENT First Citizens Bank
PROJECT NAME 250-300 Jackson St, 1/2 of Third, all of 4th, all of 5th Floors
PROJECT NUMBER 506726
PROJECT LOCATION Lowell, Massachusettes
DATE STARTED 3/12/25 **COMPLETED** 3/12/25
GROUND ELEVATION _____ **HOLE SIZE** 2.25 inches
DRILLING CONTRACTOR EPI
GROUND WATER LEVELS:
DRILLING METHOD Direct Push
AT TIME OF DRILLING ---
LOGGED BY S.Alka **CHECKED BY** B.Friedman
AT END OF DRILLING 15.77 ft
NOTES converted to TW-5
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS	PID DATA (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	COMPLETION
0						Casing Type: PVC
					0.2 ASPHALT	
					SAND, brown, trace gravel and silt	
	SB-5		0			
			0			
5			0			
					7.0	
			0		SAND, brown to light brown, with gravel	
10			0			
			0			
					13.0	
			0		SAND, brown to tan, trace clay	
15			0			
			0			
			0			
20					20.0	

Bottom of borehole at 20.0 feet.

APPENDIX C

Indoor Air Survey

Indoor Air Quality Building Survey

Date: 3/12/2025 RTN: _____

Address: 250-300 Jackson Street, Lowell, MA

Building Contact: Robert Gignac Phone: Tel: rgignac@lccps.org
Cell: _____
Work: _____

Current Occupants:

INITIALS	AGE	SEX (M/F)

Building Construction Characteristics: (Circle or underline appropriate responses)

Single Family Multiple Family School Commercial

Ranch
Raised Ranch
Cape
Colonial
Split Level
Colonial
Mobile Home
Other _____

2-Family
Duplex
Apartment House
# of units ____
Condominium
# of units ____
Other _____

General Description of Building Construction Materials:

Wood Brick Stone Metal Other_____

How many occupied stories does the building have? 5

Has the building been weatherized with any of the following?

Insulation Storm Windows Energy-Efficient Windows Other _____

Indoor Air Quality Building Survey, continued

What type of basement does the building have?

Full basement Crawlspace Slab-on-Grade Other _____

What are the characteristics of the basement? Finished Unfinished Other_____

Basement Floor:	Foundation Walls:	Moisture:
Concrete	Poured Concrete	Wet
Dirt	Block	Damp
	Stone	Dry

Is a basement sump present? (Y/N) ____

Does the basement have any of the following characteristics (i.e., preferential pathways into the building) that might permit soil vapor entry?

Cracks Pipes/Utility Conduits Foundation/slab drainage

Sump pumps Other _____

Heating and Ventilation System(s):

What type(s) of heating system are used in this building?

Hot Air Circulation	Heat Pump	Wood Stove
Hot Air Radiation	Unvented Kerosene Heater	Electric Baseboard
Forced Hot Water	Steam Radiation	Other _____

What type(s) of fuel are used in this building?

Natural Gas	Electric	Coal	Other _____
Fuel Oil	Wood	Solar	

What type(s) of mechanical ventilation system are present and/or currently operating in this building?

Central Air Conditioning	Mechanical Fan	Bathroom Ventilation Fan
Kitchen Range Hood	Open Window	Individual Air Conditioning Unit
Air-to-Air Heat Exchange	Other rooftop condenser units	

Indoor Air Quality Building Survey, continued

Sources of Chemical Contaminants:

Potential VOC Source	Check if present in building prior to sampling	Location of Source	Removed 48 hours prior to sampling? (Yes/No/NA)
Paints or paint thinners			
Gas-powered equipment			
Gasoline storage cans			
Cleaning solvents	X	janitorial closet	No
Air fresheners	x	janitorial closet	No
Oven cleaners			
Carpet/upholstery cleaners			
Hairspray			
Nail polish/polish remover			
Bathroom cleaner			
Appliance cleaner			
Furniture/floor polish			
Moth balls			
Fuel tank			
Wood stove			
Fireplace			
Perfume/colognes			
Hobby supplies (e.g., solvents, paints, lacquers, glues, photographic darkroom chemicals)			
Scented trees, wreaths, potpourri, etc.			
Other			
Other			

☐ YES ☒ NO Do one or more smokers occupy this building on a regular basis?

☐ YES ☒ NO Has anybody smoked in the building in the last 48 hours?

☐ YES ☒ NO Does the building have an attached garage?

☐ YES ☐ NO If so, is the garage used for parking cars

Indoor Air Quality Building Survey, continued

☐ YES ☒ NO Do the occupants of the building frequently have their clothes dry-cleaned?

☐ YES ☒ NO Was there any recent remodeling or painting done in the building?

☐ YES ☒ NO Are there any new pressed wood products in the building (e.g., hardwood plywood, wall paneling, particleboard, fiberboard)?

☐ YES ☒ NO Are there any new upholstery, drapes or other textiles in the building?

☐ YES ☒ NO Has the building interior been treated with any insecticides/pesticides?

If yes, what chemicals are used and how often are they applied?

Outdoor Sources of Contamination/Conditions:

Do any of the occupants apply pesticides/herbicides in the yard or garden? If yes, what chemicals are used and how often are they applied?

None

Is there any stationary emission source in the vicinity of the building?

None

Are there any mobile emission sources (e.g., highway, bus stop, high-traffic area) in the vicinity of the building?

None

Type of ground cover (e.g., grass, pavement, etc.) outside the building: Pavement

Other Information:

Is there other information about the structural features of the building, habits of its occupants or potential sources of contaminants to the indoor air that may be of significance to the evaluation of the indoor air quality of the building?

Weather Conditions during Sampling:

Outside Temperature (°F): 45

Prevailing wind direction and approximate wind speed: north; 22 mph

Describe the general weather conditions (e.g., sunny, cloudy, rain): Cloudy

Was there significant precipitation (≥ 0.1 inches) within 12 hours preceding the sampling? No

APPENDIX D
Laboratory Analytical Reports

ANALYTICAL REPORT

March 24, 2025

AEI Consultants - NJ

Sample Delivery Group:	L1836692
Samples Received:	03/15/2025
Project Number:	506716
Description:	Lowell, MA
Site:	LOWELL, MA
Report To:	Saranda Alka 20 Gibson Place Freehold, NJ 07728

Entire Report Reviewed By:

Marty Edwards III
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

SS-1 L1836692-01 Air

Collected by	Collected date/time	Received date/time
SA	03/13/25 14:35	03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2470663	1	03/17/25 22:26	03/17/25 22:26	JAP	Mt. Juliet, TN

SS-2 L1836692-02 Air

Collected by	Collected date/time	Received date/time
SA	03/13/25 13:35	03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2470663	1	03/17/25 22:58	03/17/25 22:58	JAP	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2471208	1	03/19/25 00:26	03/19/25 00:26	JAP	Mt. Juliet, TN

SS-3 L1836692-03 Air

Collected by	Collected date/time	Received date/time
SA	03/13/25 14:05	03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2470663	1	03/17/25 23:29	03/17/25 23:29	JAP	Mt. Juliet, TN

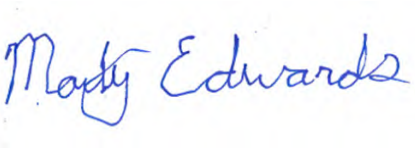
SS-5 L1836692-05 Air

Collected by	Collected date/time	Received date/time
SA	03/13/25 12:05	03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2470663	1	03/18/25 00:37	03/18/25 00:37	JAP	Mt. Juliet, TN

CASE NARRATIVE

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 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.



Marty Edwards III
Project Manager

Project Narrative

TO-15: The Lab was unable to analyze the following sample due to an equipment malfunction: SS-4 (L1836692-4).

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	20.3	48.2		1	WG2470663
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2470663
Benzene	71-43-2	78.10	0.200	0.639	7.83	25.0		1	WG2470663
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2470663
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2470663
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2470663
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2470663
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2470663
Carbon disulfide	75-15-0	76.10	0.400	1.24	0.930	2.89		1	WG2470663
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2470663
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2470663
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2470663
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2470663
Chloromethane	74-87-3	50.50	0.200	0.413	0.589	1.22		1	WG2470663
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2470663
Cyclohexane	110-82-7	84.20	0.200	0.689	0.276	0.950		1	WG2470663
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2470663
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2470663
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2470663
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2470663
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2470663
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2470663
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2470663
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2470663
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2470663
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2470663
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2470663
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2470663
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2470663
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2470663
Ethanol	64-17-5	46.10	2.50	4.71	46.2	87.1		1	WG2470663
Ethylbenzene	100-41-4	106	0.200	0.867	0.630	2.73		1	WG2470663
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2470663
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.270	1.52		1	WG2470663
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.438	2.17		1	WG2470663
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2470663
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2470663
Heptane	142-82-5	100	0.200	0.818	0.305	1.25		1	WG2470663
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2470663
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2470663
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2470663
Methylene Chloride	75-09-2	84.90	0.200	0.694	5.41	18.8		1	WG2470663
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2470663
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.72	5.07		1	WG2470663
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2470663
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2470663
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2470663
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2470663
2-Propanol	67-63-0	60.10	1.25	3.07	5.83	14.3		1	WG2470663
Propene	115-07-1	42.10	1.25	2.15	3.38	5.82		1	WG2470663
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2470663
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2470663
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.672	4.56		1	WG2470663
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.722	2.13		1	WG2470663
Toluene	108-88-3	92.10	0.500	1.88	3.92	14.8		1	WG2470663
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2470663

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	WG2470663
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2470663
Trichloroethylene	79-01-6	131	0.200	1.07	2.11	11.3		1	WG2470663
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.201	0.987		1	WG2470663
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2470663
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2470663
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2470663
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2470663
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2470663
Xylenes, Total	1330-20-7	106.16	0.600	2.61	4.25	18.5		1	WG2470663
m&p-Xylene		106	0.400	1.73	2.92	12.7		1	WG2470663
o-Xylene	95-47-6	106	0.200	0.867	1.33	5.77		1	WG2470663
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.5*				WG2470663

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	72.2	172		1	WG2470663
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2470663
Benzene	71-43-2	78.10	0.200	0.639	32.6	104		1	WG2470663
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2470663
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2470663
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2470663
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2470663
1,3-Butadiene	106-99-0	54.10	2.00	4.43	4.67	10.3		1	WG2470663
Carbon disulfide	75-15-0	76.10	0.400	1.24	7.67	23.9		1	WG2470663
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2470663
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2470663
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2470663
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2470663
Chloromethane	74-87-3	50.50	0.200	0.413	0.932	1.92		1	WG2470663
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2470663
Cyclohexane	110-82-7	84.20	0.200	0.689	4.90	16.9		1	WG2470663
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2470663
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2470663
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2470663
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2470663
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2470663
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2470663
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2470663
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2470663
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2470663
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2470663
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2470663
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2470663
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2470663
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2470663
Ethanol	64-17-5	46.10	2.50	4.71	72.5	137		1	WG2470663
Ethylbenzene	100-41-4	106	0.200	0.867	1.49	6.46		1	WG2470663
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2470663
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.215	1.21		1	WG2470663
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.450	2.23		1	WG2470663
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2470663
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2470663
Heptane	142-82-5	100	0.200	0.818	0.679	2.78		1	WG2470663
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2470663
n-Hexane	110-54-3	86.20	0.630	2.22	0.829	2.92		1	WG2470663
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2470663
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.543	1.89		1	WG2470663
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2470663
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.37	6.99		1	WG2470663
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2470663
Methyl methacrylate	80-62-6	100.12	0.200	0.819	0.356	1.46		1	WG2470663
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2470663
Naphthalene	91-20-3	128	0.630	3.30	31.9	167		1	WG2471208
2-Propanol	67-63-0	60.10	1.25	3.07	3.80	9.34		1	WG2470663
Propene	115-07-1	42.10	1.25	2.15	27.6	47.5		1	WG2470663
Styrene	100-42-5	104	0.400	1.70	0.739	3.14		1	WG2470663
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2470663
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.697	4.73		1	WG2470663
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2470663
Toluene	108-88-3	92.10	0.500	1.88	23.0	86.6		1	WG2470663
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2470663

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	0.477	2.59		1	WG2470663
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2470663
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2470663
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.73	8.49		1	WG2470663
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	1.37	6.72		1	WG2470663
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2470663
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2470663
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2470663
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2470663
Xylenes, Total	1330-20-7	106.16	0.600	2.61	18.4	79.9		1	WG2470663
m&p-Xylene		106	0.400	1.73	10.8	46.8		1	WG2470663
o-Xylene	95-47-6	106	0.200	0.867	7.59	32.9		1	WG2470663
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.4*				WG2470663
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.7*				WG2471208

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	10.5	25.0		1	WG2470663
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2470663
Benzene	71-43-2	78.10	0.200	0.639	0.676	2.16		1	WG2470663
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2470663
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2470663
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2470663
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2470663
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2470663
Carbon disulfide	75-15-0	76.10	0.400	1.24	2.22	6.91		1	WG2470663
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2470663
Chlorobenzene	108-90-7	113	0.200	0.924	0.651	3.01		1	WG2470663
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2470663
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2470663
Chloromethane	74-87-3	50.50	0.200	0.413	0.652	1.35		1	WG2470663
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2470663
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2470663
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2470663
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2470663
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2470663
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2470663
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2470663
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2470663
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2470663
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2470663
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2470663
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2470663
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2470663
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2470663
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2470663
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2470663
Ethanol	64-17-5	46.10	2.50	4.71	34.6	65.2		1	WG2470663
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2470663
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2470663
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.213	1.20		1	WG2470663
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.446	2.21		1	WG2470663
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2470663
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2470663
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2470663
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2470663
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2470663
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.461	2.27		1	WG2470663
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.209	0.726		1	WG2470663
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2470663
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2470663
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2470663
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2470663
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2470663
Naphthalene	91-20-3	128	0.630	3.30	0.796	4.17		1	WG2470663
2-Propanol	67-63-0	60.10	1.25	3.07	3.29	8.09		1	WG2470663
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2470663
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2470663
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2470663
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2470663
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2470663
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2470663
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2470663

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	WG2470663
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2470663
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2470663
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2470663
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2470663
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2470663
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2470663
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2470663
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2470663
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2470663
m&p-Xylene		106	0.400	1.73	ND	ND		1	WG2470663
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2470663
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*93.8*				WG2470663

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	644	1530	E	1	WG2470663
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2470663
Benzene	71-43-2	78.10	0.200	0.639	1.17	3.74		1	WG2470663
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2470663
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2470663
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2470663
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2470663
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2470663
Carbon disulfide	75-15-0	76.10	0.400	1.24	2.24	6.97		1	WG2470663
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2470663
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2470663
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2470663
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2470663
Chloromethane	74-87-3	50.50	0.200	0.413	0.958	1.98		1	WG2470663
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2470663
Cyclohexane	110-82-7	84.20	0.200	0.689	0.384	1.32		1	WG2470663
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2470663
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2470663
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2470663
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2470663
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2470663
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2470663
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2470663
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2470663
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2470663
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2470663
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2470663
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2470663
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2470663
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2470663
Ethanol	64-17-5	46.10	2.50	4.71	8.45	15.9		1	WG2470663
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2470663
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2470663
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.212	1.19		1	WG2470663
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.436	2.16		1	WG2470663
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2470663
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2470663
Heptane	142-82-5	100	0.200	0.818	0.364	1.49		1	WG2470663
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2470663
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2470663
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2470663
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.213	0.740		1	WG2470663
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2470663
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	19.1	56.3		1	WG2470663
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2470663
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2470663
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2470663
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2470663
2-Propanol	67-63-0	60.10	1.25	3.07	7.53	18.5		1	WG2470663
Propene	115-07-1	42.10	1.25	2.15	5.86	10.1		1	WG2470663
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2470663
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2470663
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2470663
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2470663
Toluene	108-88-3	92.10	0.500	1.88	2.88	10.8		1	WG2470663
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2470663

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	WG2470663
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2470663
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2470663
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2470663
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2470663
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2470663
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2470663
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2470663
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2470663
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2470663
m&p-Xylene		106	0.400	1.73	ND	ND		1	WG2470663
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2470663
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.2*				WG2470663

Method Blank (MB)

(MB) R4187523-2 03/17/25 09:40

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.520	1.25
Allyl chloride	U		0.186	0.200
Benzene	U		0.110	0.200
Benzyl Chloride	U		0.0888	0.200
Bromodichloromethane	U		0.0695	0.200
Bromoform	U		0.0755	0.630
Bromomethane	U		0.0938	0.200
1,3-Butadiene	U		0.158	2.00
Carbon disulfide	U		0.160	0.400
Carbon tetrachloride	U		0.0746	0.200
Chlorobenzene	U		0.118	0.200
Chloroethane	U		0.110	0.200
Chloroform	U		0.104	0.200
Chloromethane	U		0.110	0.200
2-Chlorotoluene	U		0.0787	0.200
Cyclohexane	U		0.170	0.200
Dibromochloromethane	U		0.0696	0.200
1,2-Dibromoethane	U		0.0690	0.200
1,2-Dichlorobenzene	U		0.0734	0.200
1,3-Dichlorobenzene	U		0.0753	0.200
1,4-Dichlorobenzene	U		0.0768	0.200
1,2-Dichloroethane	U		0.0730	0.200
1,1-Dichloroethane	U		0.0710	0.200
1,1-Dichloroethene	U		0.0747	0.200
cis-1,2-Dichloroethene	U		0.0796	0.200
trans-1,2-Dichloroethene	U		0.0735	0.200
1,2-Dichloropropane	U		0.0752	0.200
cis-1,3-Dichloropropene	U		0.0743	0.200
trans-1,3-Dichloropropene	U		0.0795	0.200
1,4-Dioxane	U		0.164	0.630
Ethanol	U		2.37	2.50
Ethylbenzene	U		0.0778	0.200
4-Ethyltoluene	U		0.0887	0.200
Trichlorofluoromethane	U		0.0771	0.200
Dichlorodifluoromethane	U		0.0806	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0751	0.200
1,2-Dichlorotetrafluoroethane	U		0.0756	0.200
Heptane	U		0.114	0.200
Hexachloro-1,3-butadiene	U		0.0800	0.630
n-Hexane	U		0.143	0.630

Method Blank (MB)

(MB) R4187523-2 03/17/25 09:40

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U		0.0722	0.200
Methylene Chloride	U		0.169	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.116	1.25
4-Methyl-2-pentanone (MIBK)	U		0.106	1.25
Methyl methacrylate	U		0.169	0.200
MTBE	U		0.0813	0.200
Naphthalene	U		0.617	0.630
2-Propanol	U		0.680	1.25
Propene	U		0.214	1.25
Styrene	U		0.0802	0.400
1,1,2,2-Tetrachloroethane	U		0.0695	0.200
Tetrachloroethylene	U		0.111	0.200
Tetrahydrofuran	U		0.164	0.200
Toluene	U		0.130	0.500
1,2,4-Trichlorobenzene	U		0.462	0.630
1,1,1-Trichloroethane	U		0.0718	0.200
1,1,2-Trichloroethane	U		0.0683	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0927	0.200
1,3,5-Trimethylbenzene	U		0.0853	0.200
2,2,4-Trimethylpentane	U		0.0898	0.200
Vinyl chloride	U		0.0826	0.200
Vinyl Bromide	U		0.0749	0.200
Vinyl acetate	U		0.0968	0.630
Xylenes, Total	U		0.0887	0.600
m&p-Xylene	U		0.174	0.400
o-Xylene	U		0.0887	0.200
(S) 1,4-Bromofluorobenzene	*90.4*			*60.0-140*

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

(LCS) R4187523-1 03/17/25 09:10 • (LCSD) R4187523-3 03/17/25 15:33

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	4.02	4.09	107	109	70.0-130			1.73	25
Allyl chloride	3.75	3.76	3.74	100	99.7	70.0-130			0.533	25
Benzene	3.75	3.89	3.69	104	98.4	70.0-130			5.28	25
Benzyl Chloride	3.75	3.76	3.81	100	102	70.0-152			1.32	25

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

(LCS) R4187523-1 03/17/25 09:10 • (LCSD) R4187523-3 03/17/25 15:33

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	3.75	3.56	3.63	94.9	96.8	70.0-130			1.95	25
Bromoform	3.75	3.56	3.70	94.9	98.7	70.0-130			3.86	25
Bromomethane	3.75	3.94	3.74	105	99.7	70.0-130			5.21	25
1,3-Butadiene	3.75	4.03	3.72	107	99.2	70.0-130			8.00	25
Carbon disulfide	7.50	7.81	7.72	104	103	70.0-130			1.16	25
Carbon tetrachloride	3.75	3.53	3.55	94.1	94.7	70.0-130			0.565	25
Chlorobenzene	3.75	3.85	3.52	103	93.9	70.0-130			8.96	25
Chloroethane	3.75	3.86	3.84	103	102	70.0-130			0.519	25
Chloroform	3.75	3.68	3.52	98.1	93.9	70.0-130			4.44	25
Chloromethane	3.75	3.82	3.75	102	100	70.0-130			1.85	25
2-Chlorotoluene	3.75	3.74	3.52	99.7	93.9	70.0-130			6.06	25
Cyclohexane	3.75	3.96	3.61	106	96.3	70.0-130			9.25	25
Dibromochloromethane	3.75	3.63	3.59	96.8	95.7	70.0-130			1.11	25
1,2-Dibromoethane	3.75	3.77	3.62	101	96.5	70.0-130			4.06	25
1,2-Dichlorobenzene	3.75	3.90	3.70	104	98.7	70.0-130			5.26	25
1,3-Dichlorobenzene	3.75	3.93	3.69	105	98.4	70.0-130			6.30	25
1,4-Dichlorobenzene	3.75	3.82	3.66	102	97.6	70.0-130			4.28	25
1,2-Dichloroethane	3.75	3.39	3.49	90.4	93.1	70.0-130			2.91	25
1,1-Dichloroethane	3.75	3.76	3.66	100	97.6	70.0-130			2.70	25
1,1-Dichloroethene	3.75	3.69	3.79	98.4	101	70.0-130			2.67	25
cis-1,2-Dichloroethene	3.75	3.76	3.64	100	97.1	70.0-130			3.24	25
trans-1,2-Dichloroethene	3.75	3.81	3.76	102	100	70.0-130			1.32	25
1,2-Dichloropropane	3.75	3.81	3.63	102	96.8	70.0-130			4.84	25
cis-1,3-Dichloropropene	3.75	3.60	3.41	96.0	90.9	70.0-130			5.42	25
trans-1,3-Dichloropropene	3.75	3.80	3.73	101	99.5	70.0-130			1.86	25
1,4-Dioxane	3.75	4.18	3.94	111	105	70.0-140			5.91	25
Ethanol	3.75	3.95	4.16	105	111	55.0-148			5.18	25
Ethylbenzene	3.75	3.84	3.62	102	96.5	70.0-130			5.90	25
4-Ethyltoluene	3.75	3.95	3.75	105	100	70.0-130			5.19	25
Trichlorofluoromethane	3.75	3.52	3.61	93.9	96.3	70.0-130			2.52	25
Dichlorodifluoromethane	3.75	3.53	3.57	94.1	95.2	64.0-139			1.13	25
1,1,2-Trichlorotrifluoroethane	3.75	3.80	3.78	101	101	70.0-130			0.528	25
1,2-Dichlorotetrafluoroethane	3.75	3.82	3.74	102	99.7	70.0-130			2.12	25
Heptane	3.75	3.92	3.70	105	98.7	70.0-130			5.77	25
Hexachloro-1,3-butadiene	3.75	3.48	3.22	92.8	85.9	70.0-151			7.76	25
n-Hexane	3.75	3.91	3.65	104	97.3	70.0-130			6.88	25
Isopropylbenzene	3.75	3.74	3.64	99.7	97.1	70.0-130			2.71	25
Methylene Chloride	3.75	3.81	3.69	102	98.4	70.0-130			3.20	25
Methyl Butyl Ketone	3.75	3.99	3.85	106	103	70.0-149			3.57	25
2-Butanone (MEK)	3.75	3.72	3.60	99.2	96.0	70.0-130			3.28	25

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

(LCS) R4187523-1 03/17/25 09:10 • (LCSD) R4187523-3 03/17/25 15:33

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	3.78	3.64	101	97.1	70.0-139			3.77	25
Methyl methacrylate	3.75	4.01	3.86	107	103	70.0-130			3.81	25
MTBE	3.75	3.73	3.59	99.5	95.7	70.0-130			3.83	25
Naphthalene	3.75	4.63	4.36	123	116	70.0-159			6.01	25
2-Propanol	3.75	3.83	3.85	102	103	70.0-139			0.521	25
Propene	3.75	3.45	3.56	92.0	94.9	64.0-144			3.14	25
Styrene	7.50	8.32	7.93	111	106	70.0-130			4.80	25
1,1,2,2-Tetrachloroethane	3.75	3.75	3.66	100	97.6	70.0-130			2.43	25
Tetrachloroethylene	3.75	3.76	3.32	100	88.5	70.0-130			12.4	25
Tetrahydrofuran	3.75	3.86	3.68	103	98.1	70.0-137			4.77	25
Toluene	3.75	3.98	3.66	106	97.6	70.0-130			8.38	25
1,2,4-Trichlorobenzene	3.75	4.09	3.73	109	99.5	70.0-160			9.21	25
1,1,1-Trichloroethane	3.75	3.50	3.54	93.3	94.4	70.0-130			1.14	25
1,1,2-Trichloroethane	3.75	3.84	3.69	102	98.4	70.0-130			3.98	25
Trichloroethylene	3.75	3.82	3.59	102	95.7	70.0-130			6.21	25
1,2,4-Trimethylbenzene	3.75	3.88	3.72	103	99.2	70.0-130			4.21	25
1,3,5-Trimethylbenzene	3.75	3.99	3.70	106	98.7	70.0-130			7.54	25
2,2,4-Trimethylpentane	3.75	4.06	3.80	108	101	70.0-130			6.62	25
Vinyl chloride	3.75	3.84	3.78	102	101	70.0-130			1.57	25
Vinyl Bromide	3.75	4.02	3.79	107	101	70.0-130			5.89	25
Vinyl acetate	3.75	3.70	3.80	98.7	101	70.0-130			2.67	25
Xylenes, Total	11.3	11.8	11.4	104	101	70.0-130			3.45	25
m&p-Xylene	7.50	7.86	7.58	105	101	70.0-130			3.63	25
o-Xylene	3.75	3.96	3.85	106	103	70.0-130			2.82	25
(S) 1,4-Bromofluorobenzene				*96.9*	*100*	*60.0-140*				

Method Blank (MB)

(MB) R4187832-2 03/18/25 10:39

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Naphthalene	U		0.617	0.630
(S) 1,4-Bromofluorobenzene	*94.4*			*60.0-140*

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

(LCS) R4187832-1 03/18/25 10:00 • (LCSD) R4187832-3 03/18/25 11:24

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	3.75	4.22	4.08	113	109	70.0-159			3.37	25
(S) 1,4-Bromofluorobenzene				*94.6*	*94.6*	*60.0-140*				

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.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

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, the sample preparation volume or weight values differ from the standard, 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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

M176

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Sample Receipt Checklist
COC Seal Present/Intact: Y N NP
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Unused: —
Size: 5 1L 6 6L ___ 1.4L
Tage Color: G___ W 11 P___ B___
Condition: OK ___NCF

Company Name: **AEI Consultants - NJ**
Street Address: **20 Gibson Place**
Freehold, NJ 07728
City, State Zip:
Customer Project #: **506716**
Project Name: **Lowell, MA**
Site Collection Info/Facility ID (as applicable): **AEICONFNJ-506716 LOWELL, MA**

Contact/Report To: **Brett Huber**
Phone #: **732-414-2720**
E-Mail: **bhuber@aeiconsultants.com**
Cc E-Mail:
Invoice to:
Invoice E-Mail: **ap@aeiconsultants.com**
Purchase Order # (if applicable): **397718**
Quote #:
State origin of sample(s): **Massachusettes**

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other_____

Regulatory Program (CAA, RCRA, etc.) as applicable:
Rush (Pre-approval required): 2 Day 3 day 5 day Other_____
Date Results Requested:
Permit # as applicable:
Units for Reporting: (ug/m³) PPBV mg/m³ PPMV

Field Information

Analyses Requested

AS 3.5.25

Proj. Manager: **3813 - Marty Edwards III**
AcctNum / Client ID: **AEICONFNJ**
Table #:
Profile / Template: **T269462**
Prelog / Bottle Ord. ID: **P1136297**

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	TO-15 Summa				Sample Comment
SS-1	SV	~~12429~~ ~~12443~~	~~12443~~ 22462	3/13/25	14:30	3/13/25	14:35	-30	-4	5		1 L	X				L1936692-01
SS-2	SV	24786	24064	3/13/25	13:30	3/13/25	13:35	-30	-4	5		1 L	X				02
SS-3	SV	8887	11380	3/13/25	14:00	3/13/25	14:05	-30	-6	5		1 L	X				03
SS-4	SV	12718	22462	~~3/13/25~~ 3/13/25	~~14:30~~ 14:30	3/13/25	14:35	-29	-16	5		1 L	X				04
SS-5	SV	23956	22647	3/13/25	12:00	3/13/25	12:05	-29	-4	5		1 L	X				05
IA-1	I	14901	24885	3/12/25	9:30	3/12/25	16:30	-30	-10	480		6 L	X				Hold 06
IA-2	I	24211	28329	3/12/25	9:30	3/12/25	16:30	-30	-10	480		6 L	X				Hold 07
IA-3	I	24248	24910	3/12/25	9:30	3/12/25	16:30	-29	-11	480		6 L	X				Hold 08
IA-4	I	13966	29339	3/12/25	9:30	3/12/25	16:30	-28	-8	480		6 L	X				Hold 09
IA-5	I	13915	29295	3/12/25	9:30	3/12/25	16:30	-28	-1	480		6 L	X				Hold 10

Customer Remarks / Special Conditions / Possible Hazards:
Sample SS-4 may have water in it

Collected By: S.A. AEI
Printed Name: Sarunda Allen
Signature:

Additional Instructions from Pace®:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
AEI	3/13/25 17:00		
			3/15 0900

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): AMB Corrected Temp. (°C):

Tracking Number: MWH

Delivered by: In- Person Courier (FedEx) UPS Other

Page: 1 of: 2

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR code for instructions

Company Name: **AEI Consultants - NJ**	Contact/Report To: **Brett Huber**
Street Address: **20 Gibson Place Freehold, NJ 07728**	Phone #: **732-414-2720**
City, State Zip:	E-Mail: **bhuber@aeiconsultants.com**
Customer Project #: **506716**	Cc E-Mail:
Project Name: Lowell, MA	Invoice to:
Site Collection Info/Facility ID (as applicable): **AEICONFNJ-506716 LOWELL, MA**	Invoice E-Mail: ap@aeiconsultants.com
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET	Purchase Order # (if applicable): 397718
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other_____	Quote #:
Regulatory Program (CAA, RCRA, etc.) as applicable:	State origin of sample(s): Massachusettes
Rush (Pre-approval required): 2 Day 3 day 5 day Other_____ Date Results Requested:	Permit # as applicable:
	Units for Reporting: (ug/m³) PPBV mg/m³ PPMV

3.5.25

Proj. Manager: **3813 - Marty Edwards III**

AcctNum / Client ID: **AEICONFNJ**

Table #:

Profile / Template: **T269462**

Prelog / Bottle Ord. ID: **P1136297**

Lab Use Only

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Field Information: Canister Pressure / Vacuum — Start Pressure / Vacuum (in Hg)	Field Information: Canister Pressure / Vacuum — End Pressure / Vacuum (in Hg)	Field Information: PUF / FILTER — Duration (minutes)	Field Information: PUF / FILTER — Flow Rate m³/min or L/min	Field Information: PUF / FILTER — Total Volume Sampled m³ or L	Analyses Requested: TO-15 Summa	Sample Comment
AA-1	A	23978	28439	3/14/25	9:30	3/14/25	16:30	-29	-10	480		6 L	X	Hold -1'
													X	L1436692
													X	
													X	
													X	
													X	
													X	
													X	
													X	
													X	
													X	

Customer Remarks / Special Conditions / Possible Hazards:

Collected By: S.A, AEI
Printed Name: Sarandis Athas
Signature:

Additional Instructions from Pace®:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): 4.4 Corrected Temp. (°C): 4.4

Tracking Number: Multi

Delivered by: In- Person Courier (FedEX) UPS Other

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
AEI	3/13/25 17:00		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 3/15 0900

Page: 2 of: 2

Multiple Parcel Form

L# L1436692

Parcel Tracking Number	Infrared Thermometer ID	Temperature Reading (°C)	Correction Factor (°C)	Corrected Temperature (°C)	Custody Seal Intact
4072 9212 2591	N/A	AMB	+0.0	AMB	Yes / No / Not Present
4072 9212 2606	↓	↓	↓	↓	Yes / No / Not Present
4072 9212 2628					Yes / No / Not Present
4072 9212 2617					Yes / No / Not Present
4072 9212 2639					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present

Elijah Wilson
Name

3/15
Date

ANALYTICAL REPORT

March 25, 2025

AEI Consultants - NJ

Sample Delivery Group:	L1836825
Samples Received:	03/15/2025
Project Number:	506716
Description:	
Site:	LOWELL, MA
Report To:	Saranda Alka 20 Gibson Place Freehold, NJ 07728

Entire Report Reviewed By:

Marty Edwards III
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

SB-1 L1836825-01 Solid

Collected by: SA | Collected date/time: 03/12/25 09:00 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2471281	1	03/18/25 14:46	03/18/25 14:59	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2472445	1	03/20/25 12:56	03/21/25 16:14	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2471810	1	03/19/25 10:03	03/19/25 18:11	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2471923	1.01	03/12/25 09:00	03/19/25 12:26	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2473603	1	03/21/25 10:58	03/21/25 18:34	TKW	Mt. Juliet, TN

SB-2 L1836825-02 Solid

Collected by: SA | Collected date/time: 03/12/25 09:30 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2471281	1	03/18/25 14:46	03/18/25 14:59	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2471529	5	03/19/25 13:24	03/19/25 20:16	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2471810	1	03/19/25 10:03	03/19/25 18:13	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2471923	1	03/12/25 09:30	03/19/25 12:48	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2473603	1	03/21/25 10:58	03/21/25 18:53	KB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2473603	10	03/21/25 10:58	03/25/25 07:09	TKW	Mt. Juliet, TN

SB-3 L1836825-03 Solid

Collected by: SA | Collected date/time: 03/12/25 10:00 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2471281	1	03/18/25 14:46	03/18/25 14:59	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2471529	1	03/19/25 13:24	03/19/25 19:30	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2471810	1	03/19/25 10:03	03/19/25 18:15	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2471923	1.08	03/12/25 10:00	03/19/25 13:10	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2473603	1	03/21/25 10:58	03/21/25 19:13	TKW	Mt. Juliet, TN

SB-4 L1836825-04 Solid

Collected by: SA | Collected date/time: 03/12/25 10:30 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2471281	1	03/18/25 14:46	03/18/25 14:59	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2471529	1	03/19/25 13:24	03/19/25 19:38	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2471810	1	03/19/25 10:03	03/19/25 18:17	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2471923	1	03/12/25 10:30	03/19/25 13:32	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2473603	1	03/21/25 10:58	03/21/25 23:07	TKW	Mt. Juliet, TN

SB-5 L1836825-05 Solid

Collected by: SA | Collected date/time: 03/12/25 11:30 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2471281	1	03/18/25 14:46	03/18/25 14:59	CMB	Mt. Juliet, TN
Mercury by Method 7471B	WG2471525	1	03/20/25 12:52	03/21/25 14:07	LAS	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2471810	1	03/19/25 10:03	03/19/25 18:18	MAP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2471923	1	03/12/25 11:30	03/19/25 13:54	ACG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2473603	1	03/21/25 10:58	03/21/25 19:32	TKW	Mt. Juliet, TN

TW-1 L1836825-06 GW

Collected by: SA | Collected date/time: 03/12/25 12:00 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG2470787	1	03/17/25 23:22	03/18/25 22:15	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2471877	1	03/19/25 13:38	03/20/25 20:43	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2474420	1	03/22/25 17:29	03/22/25 17:29	WHS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2471291	1	03/18/25 20:24	03/19/25 01:40	KB	Mt. Juliet, TN

TW-2 L1836825-07 GW

Collected by: SA | Collected date/time: 03/12/25 13:00 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG2470787	1	03/17/25 23:22	03/18/25 22:17	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2471877	1	03/19/25 13:38	03/20/25 20:46	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2474420	1	03/22/25 17:49	03/22/25 17:49	WHS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2471291	5	03/18/25 20:24	03/19/25 06:15	KB	Mt. Juliet, TN

TW-3 L1836825-08 GW

Collected by: SA | Collected date/time: 03/12/25 14:00 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG2470787	1	03/17/25 23:22	03/18/25 22:25	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2471877	1	03/19/25 13:38	03/20/25 20:49	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2474420	1	03/22/25 18:10	03/22/25 18:10	WHS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2471291	1	03/18/25 20:24	03/19/25 01:57	KB	Mt. Juliet, TN

TW-4 L1836825-09 GW

Collected by: SA | Collected date/time: 03/12/25 15:00 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG2470787	1	03/17/25 23:22	03/18/25 22:27	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2471877	1	03/19/25 13:38	03/20/25 20:53	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2471877	1	03/19/25 13:38	03/20/25 21:40	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2474420	1	03/22/25 18:30	03/22/25 18:30	WHS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2471291	10.5	03/18/25 20:24	03/19/25 10:17	KB	Mt. Juliet, TN

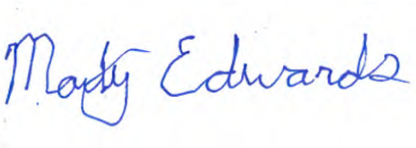
TW-5 L1836825-10 GW

Collected by: SA | Collected date/time: 03/12/25 17:00 | Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG2470787	1	03/17/25 23:22	03/18/25 22:30	NDL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2471877	1	03/19/25 13:38	03/20/25 20:56	UNP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG2471877	1	03/19/25 13:38	03/20/25 21:43	UNP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2474420	1	03/22/25 18:51	03/22/25 18:51	WHS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG2471291	1	03/18/25 20:24	03/19/25 03:06	KB	Mt. Juliet, TN

CASE NARRATIVE

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 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.



Marty Edwards III
Project Manager

Sample Delivery Group (SDG) Narrative

Analysis was filtered in the laboratory.

Lab Sample ID	Project Sample ID	Method
L1836825-06	TW-1	7470A, 6020B
L1836825-07	TW-2	7470A, 6020B
L1836825-08	TW-3	7470A, 6020B
L1836825-09	TW-4	7470A, 6020B
L1836825-10	TW-5	7470A, 6020B
R4189098-3		6020B

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	67.9		1	03/18/2025 14:59	WG2471281

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0303	0.0589	1	03/21/2025 16:14	WG2472445

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aluminum	7270		8.95	29.4	1	03/19/2025 18:11	WG2471810
Antimony	U		1.02	2.94	1	03/19/2025 18:11	WG2471810
Arsenic	U		1.23	2.94	1	03/19/2025 18:11	WG2471810
Barium	36.6		0.125	0.736	1	03/19/2025 18:11	WG2471810
Beryllium	0.288	J	0.0702	0.294	1	03/19/2025 18:11	WG2471810
Cadmium	0.174	J	0.0961	0.736	1	03/19/2025 18:11	WG2471810
Calcium	2080		28.0	147	1	03/19/2025 18:11	WG2471810
Chromium	10.8		0.315	1.47	1	03/19/2025 18:11	WG2471810
Cobalt	2.29	B	0.260	1.47	1	03/19/2025 18:11	WG2471810
Copper	3.48		0.525	2.94	1	03/19/2025 18:11	WG2471810
Iron	4170		3.30	14.7	1	03/19/2025 18:11	WG2471810
Lead	5.30		0.480	0.736	1	03/19/2025 18:11	WG2471810
Magnesium	1450		29.3	147	1	03/19/2025 18:11	WG2471810
Manganese	53.2		0.255	1.47	1	03/19/2025 18:11	WG2471810
Nickel	5.93		0.294	2.94	1	03/19/2025 18:11	WG2471810
Potassium	798		30.8	147	1	03/19/2025 18:11	WG2471810
Selenium	U		1.57	2.94	1	03/19/2025 18:11	WG2471810
Silver	U		0.187	1.47	1	03/19/2025 18:11	WG2471810
Sodium	291	B	60.6	147	1	03/19/2025 18:11	WG2471810
Thallium	U		0.762	2.94	1	03/19/2025 18:11	WG2471810
Vanadium	8.91		0.564	2.94	1	03/19/2025 18:11	WG2471810
Zinc	17.3		1.43	7.36	1	03/19/2025 18:11	WG2471810

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0308	0.0743	1.01	03/19/2025 12:26	WG2471923
Benzene	U		0.000558	0.00149	1.01	03/19/2025 12:26	WG2471923
Bromochloromethane	U		0.000497	0.00149	1.01	03/19/2025 12:26	WG2471923
Bromodichloromethane	U		0.00108	0.00149	1.01	03/19/2025 12:26	WG2471923
Bromoform	U		0.000630	0.00149	1.01	03/19/2025 12:26	WG2471923
Bromomethane	U	C3	0.00174	0.00743	1.01	03/19/2025 12:26	WG2471923
Carbon disulfide	U		0.00104	0.00149	1.01	03/19/2025 12:26	WG2471923
Carbon tetrachloride	U		0.000368	0.00149	1.01	03/19/2025 12:26	WG2471923
Chlorobenzene	U		0.000286	0.00149	1.01	03/19/2025 12:26	WG2471923
Chlorodibromomethane	U		0.000333	0.00149	1.01	03/19/2025 12:26	WG2471923
Chloroethane	U		0.00149	0.00743	1.01	03/19/2025 12:26	WG2471923
Chloroform	U		0.00153	0.00743	1.01	03/19/2025 12:26	WG2471923
Chloromethane	U	C3	0.000965	0.00372	1.01	03/19/2025 12:26	WG2471923
Cyclohexane	U		0.000399	0.00149	1.01	03/19/2025 12:26	WG2471923
1,2-Dibromo-3-Chloropropane	U		0.00283	0.00743	1.01	03/19/2025 12:26	WG2471923
1,2-Dibromoethane	U		0.000372	0.00149	1.01	03/19/2025 12:26	WG2471923
Dichlorodifluoromethane	U		0.000427	0.00743	1.01	03/19/2025 12:26	WG2471923
1,1-Dichloroethane	U		0.000399	0.00149	1.01	03/19/2025 12:26	WG2471923

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000670	0.00149	1.01	03/19/2025 12:26	WG2471923
1,2-Dichlorobenzene	U		0.000631	0.00149	1.01	03/19/2025 12:26	WG2471923
1,3-Dichlorobenzene	U		0.000892	0.00149	1.01	03/19/2025 12:26	WG2471923
1,4-Dichlorobenzene	U		0.00123	0.00149	1.01	03/19/2025 12:26	WG2471923
1,1-Dichloroethene	U		0.000528	0.00149	1.01	03/19/2025 12:26	WG2471923
cis-1,2-Dichloroethene	U		0.000706	0.00149	1.01	03/19/2025 12:26	WG2471923
trans-1,2-Dichloroethene	U		0.000743	0.00149	1.01	03/19/2025 12:26	WG2471923
1,2-Dichloropropane	U		0.000244	0.00149	1.01	03/19/2025 12:26	WG2471923
cis-1,3-Dichloropropene	U		0.000631	0.00149	1.01	03/19/2025 12:26	WG2471923
trans-1,3-Dichloropropene	U		0.00100	0.00149	1.01	03/19/2025 12:26	WG2471923
Ethylbenzene	U		0.000446	0.00149	1.01	03/19/2025 12:26	WG2471923
2-Hexanone	U		0.00266	0.0149	1.01	03/19/2025 12:26	WG2471923
Isopropylbenzene	U		0.000631	0.00149	1.01	03/19/2025 12:26	WG2471923
2-Butanone (MEK)	U		0.00696	0.0149	1.01	03/19/2025 12:26	WG2471923
Methyl Acetate	U		0.00446	0.0297	1.01	03/19/2025 12:26	WG2471923
Methyl Cyclohexane	U		0.00115	0.00149	1.01	03/19/2025 12:26	WG2471923
Methylene Chloride	U		0.00149	0.00743	1.01	03/19/2025 12:26	WG2471923
4-Methyl-2-pentanone (MIBK)	U		0.00141	0.0149	1.01	03/19/2025 12:26	WG2471923
Methyl tert-butyl ether	U		0.000520	0.00149	1.01	03/19/2025 12:26	WG2471923
Styrene	U		0.000331	0.00149	1.01	03/19/2025 12:26	WG2471923
1,1,2,2-Tetrachloroethane	U		0.000343	0.00149	1.01	03/19/2025 12:26	WG2471923
Tetrachloroethene	U		0.000483	0.00149	1.01	03/19/2025 12:26	WG2471923
Toluene	U		0.00182	0.00743	1.01	03/19/2025 12:26	WG2471923
1,2,3-Trichlorobenzene	U		0.000455	0.00149	1.01	03/19/2025 12:26	WG2471923
1,2,4-Trichlorobenzene	U		0.000577	0.00149	1.01	03/19/2025 12:26	WG2471923
1,1,1-Trichloroethane	U		0.000550	0.00149	1.01	03/19/2025 12:26	WG2471923
1,1,2-Trichloroethane	U		0.000631	0.00149	1.01	03/19/2025 12:26	WG2471923
Trichloroethene	U		0.000297	0.00149	1.01	03/19/2025 12:26	WG2471923
Trichlorofluoromethane	U		0.000530	0.00743	1.01	03/19/2025 12:26	WG2471923
1,1,2-Trichlorotrifluoroethane	U		0.000633	0.00149	1.01	03/19/2025 12:26	WG2471923
Vinyl chloride	U		0.000336	0.00149	1.01	03/19/2025 12:26	WG2471923
Xylenes, Total	U		0.000743	0.00446	1.01	03/19/2025 12:26	WG2471923
tert-Butyl alcohol	U		0.00372	0.00743	1.01	03/19/2025 12:26	WG2471923
(S) Toluene-d8	*99.0*			*75.0-131*		*03/19/2025 12:26*	WG2471923
(S) 4-Bromofluorobenzene	*97.5*			*67.0-138*		*03/19/2025 12:26*	WG2471923
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*03/19/2025 12:26*	WG2471923

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1.01	03/19/2025 12:26	WG2471923		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00338	0.00883	1	03/21/2025 18:34	WG2473603
Acenaphthene	U		0.00308	0.00883	1	03/21/2025 18:34	WG2473603
Acenaphthylene	U		0.00318	0.00883	1	03/21/2025 18:34	WG2473603
Benzo(a)anthracene	U		0.00255	0.00883	1	03/21/2025 18:34	WG2473603
Benzo(a)pyrene	U		0.00263	0.00883	1	03/21/2025 18:34	WG2473603
Benzo(b)fluoranthene	U		0.00225	0.00883	1	03/21/2025 18:34	WG2473603
Benzo(g,h,i)perylene	U		0.00260	0.00883	1	03/21/2025 18:34	WG2473603

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	U		0.00316	0.00883	1	03/21/2025 18:34	WG2473603
Chrysene	U		0.00341	0.00883	1	03/21/2025 18:34	WG2473603
Dibenz(a,h)anthracene	U		0.00253	0.00883	1	03/21/2025 18:34	WG2473603
Fluoranthene	U		0.00334	0.00883	1	03/21/2025 18:34	WG2473603
Fluorene	U		0.00302	0.00883	1	03/21/2025 18:34	WG2473603
Indeno(1,2,3-cd)pyrene	U		0.00266	0.00883	1	03/21/2025 18:34	WG2473603
Naphthalene	U		0.00600	0.0294	1	03/21/2025 18:34	WG2473603
Phenanthrene	U		0.00340	0.00883	1	03/21/2025 18:34	WG2473603
Pyrene	U		0.00294	0.00883	1	03/21/2025 18:34	WG2473603
1-Methylnaphthalene	U		0.00661	0.0294	1	03/21/2025 18:34	WG2473603
2-Methylnaphthalene	U		0.00628	0.0294	1	03/21/2025 18:34	WG2473603
2-Chloronaphthalene	U		0.00686	0.0294	1	03/21/2025 18:34	WG2473603
(S) p-Terphenyl-d14	*73.0*			*23.0-120*		*03/21/2025 18:34*	WG2473603
(S) Nitrobenzene-d5	*84.3*			*14.0-149*		*03/21/2025 18:34*	WG2473603
(S) 2-Fluorobiphenyl	*75.7*			*34.0-125*		*03/21/2025 18:34*	WG2473603

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.2		1	03/18/2025 14:59	WG2471281

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	5.11		0.124	0.240	5	03/19/2025 20:16	WG2471529

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aluminum	5550		7.31	24.0	1	03/19/2025 18:13	WG2471810
Antimony	U		0.831	2.40	1	03/19/2025 18:13	WG2471810
Arsenic	5.11		1.01	2.40	1	03/19/2025 18:13	WG2471810
Barium	114		0.102	0.601	1	03/19/2025 18:13	WG2471810
Beryllium	0.361		0.0574	0.240	1	03/19/2025 18:13	WG2471810
Cadmium	0.452	J	0.0785	0.601	1	03/19/2025 18:13	WG2471810
Calcium	1220		22.8	120	1	03/19/2025 18:13	WG2471810
Chromium	12.8		0.257	1.20	1	03/19/2025 18:13	WG2471810
Cobalt	4.48		0.213	1.20	1	03/19/2025 18:13	WG2471810
Copper	37.8		0.429	2.40	1	03/19/2025 18:13	WG2471810
Iron	12700		2.69	12.0	1	03/19/2025 18:13	WG2471810
Lead	258		0.392	0.601	1	03/19/2025 18:13	WG2471810
Magnesium	1670		23.9	120	1	03/19/2025 18:13	WG2471810
Manganese	202		0.208	1.20	1	03/19/2025 18:13	WG2471810
Nickel	11.5		0.240	2.40	1	03/19/2025 18:13	WG2471810
Potassium	614		25.1	120	1	03/19/2025 18:13	WG2471810
Selenium	U		1.29	2.40	1	03/19/2025 18:13	WG2471810
Silver	U		0.153	1.20	1	03/19/2025 18:13	WG2471810
Sodium	104	B J	49.5	120	1	03/19/2025 18:13	WG2471810
Thallium	U		0.623	2.40	1	03/19/2025 18:13	WG2471810
Vanadium	12.3		0.461	2.40	1	03/19/2025 18:13	WG2471810
Zinc	98.7		1.17	6.01	1	03/19/2025 18:13	WG2471810

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0308	J	0.0249	0.0601	1	03/19/2025 12:48	WG2471923
Benzene	U		0.000451	0.00120	1	03/19/2025 12:48	WG2471923
Bromochloromethane	U		0.000403	0.00120	1	03/19/2025 12:48	WG2471923
Bromodichloromethane	U		0.000872	0.00120	1	03/19/2025 12:48	WG2471923
Bromoform	U		0.000510	0.00120	1	03/19/2025 12:48	WG2471923
Bromomethane	U	C3	0.00141	0.00601	1	03/19/2025 12:48	WG2471923
Carbon disulfide	U		0.000842	0.00120	1	03/19/2025 12:48	WG2471923
Carbon tetrachloride	U		0.000298	0.00120	1	03/19/2025 12:48	WG2471923
Chlorobenzene	U		0.000231	0.00120	1	03/19/2025 12:48	WG2471923
Chlorodibromomethane	U		0.000269	0.00120	1	03/19/2025 12:48	WG2471923
Chloroethane	U		0.00120	0.00601	1	03/19/2025 12:48	WG2471923
Chloroform	U		0.00124	0.00601	1	03/19/2025 12:48	WG2471923
Chloromethane	U	C3	0.000782	0.00301	1	03/19/2025 12:48	WG2471923
Cyclohexane	U		0.000322	0.00120	1	03/19/2025 12:48	WG2471923
1,2-Dibromo-3-Chloropropane	U		0.00228	0.00601	1	03/19/2025 12:48	WG2471923
1,2-Dibromoethane	U		0.000301	0.00120	1	03/19/2025 12:48	WG2471923
Dichlorodifluoromethane	U		0.000345	0.00601	1	03/19/2025 12:48	WG2471923
1,1-Dichloroethane	U		0.000322	0.00120	1	03/19/2025 12:48	WG2471923

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000541	0.00120	1	03/19/2025 12:48	WG2471923
1,2-Dichlorobenzene	U		0.000511	0.00120	1	03/19/2025 12:48	WG2471923
1,3-Dichlorobenzene	U		0.000721	0.00120	1	03/19/2025 12:48	WG2471923
1,4-Dichlorobenzene	U		0.000998	0.00120	1	03/19/2025 12:48	WG2471923
1,1-Dichloroethene	U		0.000427	0.00120	1	03/19/2025 12:48	WG2471923
cis-1,2-Dichloroethene	U		0.000571	0.00120	1	03/19/2025 12:48	WG2471923
trans-1,2-Dichloroethene	U		0.000601	0.00120	1	03/19/2025 12:48	WG2471923
1,2-Dichloropropane	U		0.000197	0.00120	1	03/19/2025 12:48	WG2471923
cis-1,3-Dichloropropene	U		0.000511	0.00120	1	03/19/2025 12:48	WG2471923
trans-1,3-Dichloropropene	U		0.000812	0.00120	1	03/19/2025 12:48	WG2471923
Ethylbenzene	U		0.000361	0.00120	1	03/19/2025 12:48	WG2471923
2-Hexanone	U		0.00215	0.0120	1	03/19/2025 12:48	WG2471923
Isopropylbenzene	U		0.000511	0.00120	1	03/19/2025 12:48	WG2471923
2-Butanone (MEK)	U		0.00563	0.0120	1	03/19/2025 12:48	WG2471923
Methyl Acetate	U		0.00361	0.0240	1	03/19/2025 12:48	WG2471923
Methyl Cyclohexane	U		0.000932	0.00120	1	03/19/2025 12:48	WG2471923
Methylene Chloride	U		0.00120	0.00601	1	03/19/2025 12:48	WG2471923
4-Methyl-2-pentanone (MIBK)	U		0.00114	0.0120	1	03/19/2025 12:48	WG2471923
Methyl tert-butyl ether	U		0.000421	0.00120	1	03/19/2025 12:48	WG2471923
Styrene	U		0.000268	0.00120	1	03/19/2025 12:48	WG2471923
1,1,2,2-Tetrachloroethane	U		0.000278	0.00120	1	03/19/2025 12:48	WG2471923
Tetrachloroethene	U		0.000391	0.00120	1	03/19/2025 12:48	WG2471923
Toluene	U		0.00148	0.00601	1	03/19/2025 12:48	WG2471923
1,2,3-Trichlorobenzene	U		0.000368	0.00120	1	03/19/2025 12:48	WG2471923
1,2,4-Trichlorobenzene	U		0.000467	0.00120	1	03/19/2025 12:48	WG2471923
1,1,1-Trichloroethane	U		0.000445	0.00120	1	03/19/2025 12:48	WG2471923
1,1,2-Trichloroethane	U		0.000511	0.00120	1	03/19/2025 12:48	WG2471923
Trichloroethene	U		0.000240	0.00120	1	03/19/2025 12:48	WG2471923
Trichlorofluoromethane	U		0.000428	0.00601	1	03/19/2025 12:48	WG2471923
1,1,2-Trichlorotrifluoroethane	U		0.000512	0.00120	1	03/19/2025 12:48	WG2471923
Vinyl chloride	U		0.000272	0.00120	1	03/19/2025 12:48	WG2471923
Xylenes, Total	U		0.000601	0.00361	1	03/19/2025 12:48	WG2471923
tert-Butyl alcohol	U		0.00301	0.00601	1	03/19/2025 12:48	WG2471923
(S) Toluene-d8	*99.9*			*75.0-131*		*03/19/2025 12:48*	WG2471923
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*03/19/2025 12:48*	WG2471923
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*03/19/2025 12:48*	WG2471923

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1	03/19/2025 12:48	WG2471923		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0672		0.00277	0.00721	1	03/21/2025 18:53	WG2473603
Acenaphthene	0.0390		0.00251	0.00721	1	03/21/2025 18:53	WG2473603
Acenaphthylene	0.0102		0.00260	0.00721	1	03/21/2025 18:53	WG2473603
Benzo(a)anthracene	0.161		0.00208	0.00721	1	03/21/2025 18:53	WG2473603
Benzo(a)pyrene	0.177		0.0215	0.0721	10	03/25/2025 07:09	WG2473603
Benzo(b)fluoranthene	0.236		0.0184	0.0721	10	03/25/2025 07:09	WG2473603
Benzo(g,h,i)perylene	0.127		0.0213	0.0721	10	03/25/2025 07:09	WG2473603

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	U		0.0259	0.0721	10	03/25/2025 07:09	WG2473603
Chrysene	0.135		0.00279	0.00721	1	03/21/2025 18:53	WG2473603
Dibenz(a,h)anthracene	0.0266	J	0.0207	0.0721	10	03/25/2025 07:09	WG2473603
Fluoranthene	0.415		0.00273	0.00721	1	03/21/2025 18:53	WG2473603
Fluorene	0.0327		0.00246	0.00721	1	03/21/2025 18:53	WG2473603
Indeno(1,2,3-cd)pyrene	0.136		0.0218	0.0721	10	03/25/2025 07:09	WG2473603
Naphthalene	0.0325		0.00491	0.0240	1	03/21/2025 18:53	WG2473603
Phenanthrene	0.352		0.00278	0.00721	1	03/21/2025 18:53	WG2473603
Pyrene	0.417		0.00240	0.00721	1	03/21/2025 18:53	WG2473603
1-Methylnaphthalene	0.0123	J	0.00540	0.0240	1	03/21/2025 18:53	WG2473603
2-Methylnaphthalene	0.0153	J	0.00513	0.0240	1	03/21/2025 18:53	WG2473603
2-Chloronaphthalene	U		0.00560	0.0240	1	03/21/2025 18:53	WG2473603
(S) p-Terphenyl-d14	*107*			*23.0-120*		*03/25/2025 07:09*	WG2473603
(S) p-Terphenyl-d14	*96.4*			*23.0-120*		*03/21/2025 18:53*	WG2473603
(S) Nitrobenzene-d5	*81.5*			*14.0-149*		*03/21/2025 18:53*	WG2473603
(S) Nitrobenzene-d5	*0.000*	J2		*14.0-149*		*03/25/2025 07:09*	WG2473603
(S) 2-Fluorobiphenyl	*75.2*			*34.0-125*		*03/21/2025 18:53*	WG2473603
(S) 2-Fluorobiphenyl	*96.8*			*34.0-125*		*03/25/2025 07:09*	WG2473603

Sample Narrative:

L1836825-02 WG2473603: IS/SURR failed on lower dilution.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.3		1	03/18/2025 14:59	WG2471281

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0253	0.0492	1	03/19/2025 19:30	WG2471529

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aluminum	6420		7.48	24.6	1	03/19/2025 18:15	WG2471810
Antimony	U		0.850	2.46	1	03/19/2025 18:15	WG2471810
Arsenic	3.90		1.03	2.46	1	03/19/2025 18:15	WG2471810
Barium	19.0		0.105	0.615	1	03/19/2025 18:15	WG2471810
Beryllium	0.253		0.0587	0.246	1	03/19/2025 18:15	WG2471810
Cadmium	0.189	J	0.0803	0.615	1	03/19/2025 18:15	WG2471810
Calcium	896		23.4	123	1	03/19/2025 18:15	WG2471810
Chromium	8.89		0.263	1.23	1	03/19/2025 18:15	WG2471810
Cobalt	2.97		0.218	1.23	1	03/19/2025 18:15	WG2471810
Copper	3.49		0.439	2.46	1	03/19/2025 18:15	WG2471810
Iron	4990		2.75	12.3	1	03/19/2025 18:15	WG2471810
Lead	3.59		0.401	0.615	1	03/19/2025 18:15	WG2471810
Magnesium	1290		24.5	123	1	03/19/2025 18:15	WG2471810
Manganese	60.8		0.213	1.23	1	03/19/2025 18:15	WG2471810
Nickel	6.27		0.246	2.46	1	03/19/2025 18:15	WG2471810
Potassium	639		25.7	123	1	03/19/2025 18:15	WG2471810
Selenium	U		1.32	2.46	1	03/19/2025 18:15	WG2471810
Silver	U		0.156	1.23	1	03/19/2025 18:15	WG2471810
Sodium	362	B	50.7	123	1	03/19/2025 18:15	WG2471810
Thallium	U		0.637	2.46	1	03/19/2025 18:15	WG2471810
Vanadium	8.67		0.471	2.46	1	03/19/2025 18:15	WG2471810
Zinc	73.4		1.20	6.15	1	03/19/2025 18:15	WG2471810

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0449	J	0.0275	0.0664	1.08	03/19/2025 13:10	WG2471923
Benzene	U		0.000498	0.00133	1.08	03/19/2025 13:10	WG2471923
Bromochloromethane	U		0.000445	0.00133	1.08	03/19/2025 13:10	WG2471923
Bromodichloromethane	U		0.000963	0.00133	1.08	03/19/2025 13:10	WG2471923
Bromoform	U		0.000563	0.00133	1.08	03/19/2025 13:10	WG2471923
Bromomethane	U	C3	0.00155	0.00664	1.08	03/19/2025 13:10	WG2471923
Carbon disulfide	U		0.000930	0.00133	1.08	03/19/2025 13:10	WG2471923
Carbon tetrachloride	U		0.000330	0.00133	1.08	03/19/2025 13:10	WG2471923
Chlorobenzene	U		0.000255	0.00133	1.08	03/19/2025 13:10	WG2471923
Chlorodibromomethane	U		0.000298	0.00133	1.08	03/19/2025 13:10	WG2471923
Chloroethane	U		0.00133	0.00664	1.08	03/19/2025 13:10	WG2471923
Chloroform	U		0.00137	0.00664	1.08	03/19/2025 13:10	WG2471923
Chloromethane	U	C3	0.000863	0.00332	1.08	03/19/2025 13:10	WG2471923
Cyclohexane	U		0.000355	0.00133	1.08	03/19/2025 13:10	WG2471923
1,2-Dibromo-3-Chloropropane	U		0.00252	0.00664	1.08	03/19/2025 13:10	WG2471923
1,2-Dibromoethane	U		0.000332	0.00133	1.08	03/19/2025 13:10	WG2471923
Dichlorodifluoromethane	U		0.000381	0.00664	1.08	03/19/2025 13:10	WG2471923
1,1-Dichloroethane	U		0.000355	0.00133	1.08	03/19/2025 13:10	WG2471923

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000598	0.00133	1.08	03/19/2025 13:10	WG2471923
1,2-Dichlorobenzene	U		0.000565	0.00133	1.08	03/19/2025 13:10	WG2471923
1,3-Dichlorobenzene	U		0.000797	0.00133	1.08	03/19/2025 13:10	WG2471923
1,4-Dichlorobenzene	U		0.00110	0.00133	1.08	03/19/2025 13:10	WG2471923
1,1-Dichloroethene	U		0.000471	0.00133	1.08	03/19/2025 13:10	WG2471923
cis-1,2-Dichloroethene	U		0.000631	0.00133	1.08	03/19/2025 13:10	WG2471923
trans-1,2-Dichloroethene	U		0.000664	0.00133	1.08	03/19/2025 13:10	WG2471923
1,2-Dichloropropane	U		0.000218	0.00133	1.08	03/19/2025 13:10	WG2471923
cis-1,3-Dichloropropene	U		0.000565	0.00133	1.08	03/19/2025 13:10	WG2471923
trans-1,3-Dichloropropene	U		0.000897	0.00133	1.08	03/19/2025 13:10	WG2471923
Ethylbenzene	U		0.000398	0.00133	1.08	03/19/2025 13:10	WG2471923
2-Hexanone	U		0.00237	0.0133	1.08	03/19/2025 13:10	WG2471923
Isopropylbenzene	U		0.000565	0.00133	1.08	03/19/2025 13:10	WG2471923
2-Butanone (MEK)	U		0.00621	0.0133	1.08	03/19/2025 13:10	WG2471923
Methyl Acetate	U		0.00398	0.0266	1.08	03/19/2025 13:10	WG2471923
Methyl Cyclohexane	U		0.00103	0.00133	1.08	03/19/2025 13:10	WG2471923
Methylene Chloride	U		0.00133	0.00664	1.08	03/19/2025 13:10	WG2471923
4-Methyl-2-pentanone (MIBK)	U		0.00127	0.0133	1.08	03/19/2025 13:10	WG2471923
Methyl tert-butyl ether	U		0.000465	0.00133	1.08	03/19/2025 13:10	WG2471923
Styrene	U		0.000296	0.00133	1.08	03/19/2025 13:10	WG2471923
1,1,2,2-Tetrachloroethane	U		0.000306	0.00133	1.08	03/19/2025 13:10	WG2471923
Tetrachloroethene	U		0.000432	0.00133	1.08	03/19/2025 13:10	WG2471923
Toluene	U		0.00164	0.00664	1.08	03/19/2025 13:10	WG2471923
1,2,3-Trichlorobenzene	U		0.000406	0.00133	1.08	03/19/2025 13:10	WG2471923
1,2,4-Trichlorobenzene	U		0.000515	0.00133	1.08	03/19/2025 13:10	WG2471923
1,1,1-Trichloroethane	U		0.000492	0.00133	1.08	03/19/2025 13:10	WG2471923
1,1,2-Trichloroethane	U		0.000565	0.00133	1.08	03/19/2025 13:10	WG2471923
Trichloroethene	U		0.000266	0.00133	1.08	03/19/2025 13:10	WG2471923
Trichlorofluoromethane	U		0.000472	0.00664	1.08	03/19/2025 13:10	WG2471923
1,1,2-Trichlorotrifluoroethane	U		0.000566	0.00133	1.08	03/19/2025 13:10	WG2471923
Vinyl chloride	U		0.000300	0.00133	1.08	03/19/2025 13:10	WG2471923
Xylenes, Total	U		0.000664	0.00398	1.08	03/19/2025 13:10	WG2471923
tert-Butyl alcohol	U		0.00332	0.00664	1.08	03/19/2025 13:10	WG2471923
(S) Toluene-d8	*98.4*			*75.0-131*		*03/19/2025 13:10*	WG2471923
(S) 4-Bromofluorobenzene	*97.2*			*67.0-138*		*03/19/2025 13:10*	WG2471923
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*03/19/2025 13:10*	WG2471923

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1.08	03/19/2025 13:10	WG2471923		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00283	0.00738	1	03/21/2025 19:13	WG2473603
Acenaphthene	U		0.00257	0.00738	1	03/21/2025 19:13	WG2473603
Acenaphthylene	U		0.00266	0.00738	1	03/21/2025 19:13	WG2473603
Benzo(a)anthracene	U		0.00213	0.00738	1	03/21/2025 19:13	WG2473603
Benzo(a)pyrene	U		0.00220	0.00738	1	03/21/2025 19:13	WG2473603
Benzo(b)fluoranthene	U		0.00188	0.00738	1	03/21/2025 19:13	WG2473603
Benzo(g,h,i)perylene	U		0.00218	0.00738	1	03/21/2025 19:13	WG2473603

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	U		0.00264	0.00738	1	03/21/2025 19:13	WG2473603
Chrysene	U		0.00285	0.00738	1	03/21/2025 19:13	WG2473603
Dibenz(a,h)anthracene	U		0.00212	0.00738	1	03/21/2025 19:13	WG2473603
Fluoranthene	U		0.00279	0.00738	1	03/21/2025 19:13	WG2473603
Fluorene	U		0.00252	0.00738	1	03/21/2025 19:13	WG2473603
Indeno(1,2,3-cd)pyrene	U		0.00223	0.00738	1	03/21/2025 19:13	WG2473603
Naphthalene	U		0.00502	0.0246	1	03/21/2025 19:13	WG2473603
Phenanthrene	U		0.00284	0.00738	1	03/21/2025 19:13	WG2473603
Pyrene	U		0.00246	0.00738	1	03/21/2025 19:13	WG2473603
1-Methylnaphthalene	U		0.00552	0.0246	1	03/21/2025 19:13	WG2473603
2-Methylnaphthalene	U		0.00525	0.0246	1	03/21/2025 19:13	WG2473603
2-Chloronaphthalene	U		0.00573	0.0246	1	03/21/2025 19:13	WG2473603
(S) p-Terphenyl-d14	*73.2*			*23.0-120*		*03/21/2025 19:13*	WG2473603
(S) Nitrobenzene-d5	*81.1*			*14.0-149*		*03/21/2025 19:13*	WG2473603
(S) 2-Fluorobiphenyl	*71.3*			*34.0-125*		*03/21/2025 19:13*	WG2473603

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	03/18/2025 14:59	WG2471281

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0230	0.0446	1	03/19/2025 19:38	WG2471529

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aluminum	3680		6.78	22.3	1	03/19/2025 18:17	WG2471810
Antimony	U		0.771	2.23	1	03/19/2025 18:17	WG2471810
Arsenic	2.73		0.933	2.23	1	03/19/2025 18:17	WG2471810
Barium	19.7		0.0948	0.558	1	03/19/2025 18:17	WG2471810
Beryllium	0.172	J	0.0532	0.223	1	03/19/2025 18:17	WG2471810
Cadmium	0.124	J	0.0728	0.558	1	03/19/2025 18:17	WG2471810
Calcium	2000		21.2	112	1	03/19/2025 18:17	WG2471810
Chromium	8.74		0.239	1.12	1	03/19/2025 18:17	WG2471810
Cobalt	2.99		0.197	1.12	1	03/19/2025 18:17	WG2471810
Copper	7.92		0.398	2.23	1	03/19/2025 18:17	WG2471810
Iron	4300		2.50	11.2	1	03/19/2025 18:17	WG2471810
Lead	25.7		0.364	0.558	1	03/19/2025 18:17	WG2471810
Magnesium	1320		22.2	112	1	03/19/2025 18:17	WG2471810
Manganese	84.6		0.193	1.12	1	03/19/2025 18:17	WG2471810
Nickel	7.58		0.223	2.23	1	03/19/2025 18:17	WG2471810
Potassium	776		23.3	112	1	03/19/2025 18:17	WG2471810
Selenium	U		1.19	2.23	1	03/19/2025 18:17	WG2471810
Silver	U		0.142	1.12	1	03/19/2025 18:17	WG2471810
Sodium	166	B	45.9	112	1	03/19/2025 18:17	WG2471810
Thallium	U		0.578	2.23	1	03/19/2025 18:17	WG2471810
Vanadium	35.4		0.427	2.23	1	03/19/2025 18:17	WG2471810
Zinc	17.9		1.09	5.58	1	03/19/2025 18:17	WG2471810

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0280	J	0.0231	0.0558	1	03/19/2025 13:32	WG2471923
Benzene	U		0.000418	0.00112	1	03/19/2025 13:32	WG2471923
Bromochloromethane	U		0.000374	0.00112	1	03/19/2025 13:32	WG2471923
Bromodichloromethane	U		0.000809	0.00112	1	03/19/2025 13:32	WG2471923
Bromoform	U		0.000473	0.00112	1	03/19/2025 13:32	WG2471923
Bromomethane	U	C3	0.00130	0.00558	1	03/19/2025 13:32	WG2471923
Carbon disulfide	U		0.000781	0.00112	1	03/19/2025 13:32	WG2471923
Carbon tetrachloride	U		0.000277	0.00112	1	03/19/2025 13:32	WG2471923
Chlorobenzene	U		0.000214	0.00112	1	03/19/2025 13:32	WG2471923
Chlorodibromomethane	U		0.000250	0.00112	1	03/19/2025 13:32	WG2471923
Chloroethane	U		0.00112	0.00558	1	03/19/2025 13:32	WG2471923
Chloroform	U		0.00115	0.00558	1	03/19/2025 13:32	WG2471923
Chloromethane	U	C3	0.000725	0.00279	1	03/19/2025 13:32	WG2471923
Cyclohexane	U		0.000299	0.00112	1	03/19/2025 13:32	WG2471923
1,2-Dibromo-3-Chloropropane	U		0.00212	0.00558	1	03/19/2025 13:32	WG2471923
1,2-Dibromoethane	U		0.000279	0.00112	1	03/19/2025 13:32	WG2471923
Dichlorodifluoromethane	U		0.000320	0.00558	1	03/19/2025 13:32	WG2471923
1,1-Dichloroethane	U		0.000299	0.00112	1	03/19/2025 13:32	WG2471923

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000502	0.00112	1	03/19/2025 13:32	WG2471923
1,2-Dichlorobenzene	U		0.000474	0.00112	1	03/19/2025 13:32	WG2471923
1,3-Dichlorobenzene	U		0.000669	0.00112	1	03/19/2025 13:32	WG2471923
1,4-Dichlorobenzene	U		0.000926	0.00112	1	03/19/2025 13:32	WG2471923
1,1-Dichloroethene	U		0.000396	0.00112	1	03/19/2025 13:32	WG2471923
cis-1,2-Dichloroethene	U		0.000530	0.00112	1	03/19/2025 13:32	WG2471923
trans-1,2-Dichloroethene	U		0.000558	0.00112	1	03/19/2025 13:32	WG2471923
1,2-Dichloropropane	U		0.000183	0.00112	1	03/19/2025 13:32	WG2471923
cis-1,3-Dichloropropene	U		0.000474	0.00112	1	03/19/2025 13:32	WG2471923
trans-1,3-Dichloropropene	U		0.000753	0.00112	1	03/19/2025 13:32	WG2471923
Ethylbenzene	U		0.000335	0.00112	1	03/19/2025 13:32	WG2471923
2-Hexanone	U		0.00200	0.0112	1	03/19/2025 13:32	WG2471923
Isopropylbenzene	U		0.000474	0.00112	1	03/19/2025 13:32	WG2471923
2-Butanone (MEK)	U		0.00522	0.0112	1	03/19/2025 13:32	WG2471923
Methyl Acetate	U		0.00335	0.0223	1	03/19/2025 13:32	WG2471923
Methyl Cyclohexane	U		0.000864	0.00112	1	03/19/2025 13:32	WG2471923
Methylene Chloride	U		0.00112	0.00558	1	03/19/2025 13:32	WG2471923
4-Methyl-2-pentanone (MIBK)	U		0.00106	0.0112	1	03/19/2025 13:32	WG2471923
Methyl tert-butyl ether	U		0.000390	0.00112	1	03/19/2025 13:32	WG2471923
Styrene	U		0.000249	0.00112	1	03/19/2025 13:32	WG2471923
1,1,2,2-Tetrachloroethane	U		0.000258	0.00112	1	03/19/2025 13:32	WG2471923
Tetrachloroethene	U		0.000362	0.00112	1	03/19/2025 13:32	WG2471923
Toluene	U		0.00137	0.00558	1	03/19/2025 13:32	WG2471923
1,2,3-Trichlorobenzene	U		0.000341	0.00112	1	03/19/2025 13:32	WG2471923
1,2,4-Trichlorobenzene	U		0.000433	0.00112	1	03/19/2025 13:32	WG2471923
1,1,1-Trichloroethane	U		0.000413	0.00112	1	03/19/2025 13:32	WG2471923
1,1,2-Trichloroethane	U		0.000474	0.00112	1	03/19/2025 13:32	WG2471923
Trichloroethene	U		0.000223	0.00112	1	03/19/2025 13:32	WG2471923
Trichlorofluoromethane	U		0.000397	0.00558	1	03/19/2025 13:32	WG2471923
1,1,2-Trichlorotrifluoroethane	U		0.000475	0.00112	1	03/19/2025 13:32	WG2471923
Vinyl chloride	U		0.000252	0.00112	1	03/19/2025 13:32	WG2471923
Xylenes, Total	U		0.000558	0.00335	1	03/19/2025 13:32	WG2471923
tert-Butyl alcohol	U		0.00279	0.00558	1	03/19/2025 13:32	WG2471923
(S) Toluene-d8	*100*			*75.0-131*		*03/19/2025 13:32*	WG2471923
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*03/19/2025 13:32*	WG2471923
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*03/19/2025 13:32*	WG2471923

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1	03/19/2025 13:32	WG2471923		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00367	J	0.00257	0.00669	1	03/21/2025 23:07	WG2473603
Acenaphthene	U		0.00233	0.00669	1	03/21/2025 23:07	WG2473603
Acenaphthylene	U		0.00241	0.00669	1	03/21/2025 23:07	WG2473603
Benzo(a)anthracene	0.0244		0.00193	0.00669	1	03/21/2025 23:07	WG2473603
Benzo(a)pyrene	0.0230		0.00200	0.00669	1	03/21/2025 23:07	WG2473603
Benzo(b)fluoranthene	0.0332		0.00171	0.00669	1	03/21/2025 23:07	WG2473603
Benzo(g,h,i)perylene	0.0209		0.00197	0.00669	1	03/21/2025 23:07	WG2473603

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	0.0115		0.00240	0.00669	1	03/21/2025 23:07	WG2473603
Chrysene	0.0219		0.00259	0.00669	1	03/21/2025 23:07	WG2473603
Dibenz(a,h)anthracene	U		0.00192	0.00669	1	03/21/2025 23:07	WG2473603
Fluoranthene	0.0472		0.00253	0.00669	1	03/21/2025 23:07	WG2473603
Fluorene	U		0.00229	0.00669	1	03/21/2025 23:07	WG2473603
Indeno(1,2,3-cd)pyrene	0.0225		0.00202	0.00669	1	03/21/2025 23:07	WG2473603
Naphthalene	U		0.00455	0.0223	1	03/21/2025 23:07	WG2473603
Phenanthrene	0.0158		0.00258	0.00669	1	03/21/2025 23:07	WG2473603
Pyrene	0.0429		0.00223	0.00669	1	03/21/2025 23:07	WG2473603
1-Methylnaphthalene	U		0.00501	0.0223	1	03/21/2025 23:07	WG2473603
2-Methylnaphthalene	U		0.00476	0.0223	1	03/21/2025 23:07	WG2473603
2-Chloronaphthalene	U		0.00520	0.0223	1	03/21/2025 23:07	WG2473603
(S) p-Terphenyl-d14	*69.1*			*23.0-120*		*03/21/2025 23:07*	WG2473603
(S) Nitrobenzene-d5	*70.6*			*14.0-149*		*03/21/2025 23:07*	WG2473603
(S) 2-Fluorobiphenyl	*68.5*			*34.0-125*		*03/21/2025 23:07*	WG2473603

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	03/18/2025 14:59	WG2471281

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0806		0.0229	0.0444	1	03/21/2025 14:07	WG2471525

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aluminum	6770		6.75	22.2	1	03/19/2025 18:18	WG2471810
Antimony	U		0.768	2.22	1	03/19/2025 18:18	WG2471810
Arsenic	6.08		0.930	2.22	1	03/19/2025 18:18	WG2471810
Barium	17.0		0.0944	0.555	1	03/19/2025 18:18	WG2471810
Beryllium	0.296		0.0530	0.222	1	03/19/2025 18:18	WG2471810
Cadmium	0.116	J	0.0725	0.555	1	03/19/2025 18:18	WG2471810
Calcium	1320		21.1	111	1	03/19/2025 18:18	WG2471810
Chromium	11.3		0.238	1.11	1	03/19/2025 18:18	WG2471810
Cobalt	3.06		0.197	1.11	1	03/19/2025 18:18	WG2471810
Copper	8.45		0.397	2.22	1	03/19/2025 18:18	WG2471810
Iron	5890		2.49	11.1	1	03/19/2025 18:18	WG2471810
Lead	11.2		0.362	0.555	1	03/19/2025 18:18	WG2471810
Magnesium	1690		22.1	111	1	03/19/2025 18:18	WG2471810
Manganese	91.0		0.192	1.11	1	03/19/2025 18:18	WG2471810
Nickel	9.83		0.222	2.22	1	03/19/2025 18:18	WG2471810
Potassium	768		23.2	111	1	03/19/2025 18:18	WG2471810
Selenium	U		1.19	2.22	1	03/19/2025 18:18	WG2471810
Silver	U		0.141	1.11	1	03/19/2025 18:18	WG2471810
Sodium	203	B	45.8	111	1	03/19/2025 18:18	WG2471810
Thallium	U		0.575	2.22	1	03/19/2025 18:18	WG2471810
Vanadium	382		0.425	2.22	1	03/19/2025 18:18	WG2471810
Zinc	12.7		1.08	5.55	1	03/19/2025 18:18	WG2471810

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0341	J	0.0230	0.0555	1	03/19/2025 13:54	WG2471923
Benzene	U		0.000417	0.00111	1	03/19/2025 13:54	WG2471923
Bromochloromethane	U		0.000372	0.00111	1	03/19/2025 13:54	WG2471923
Bromodichloromethane	U		0.000805	0.00111	1	03/19/2025 13:54	WG2471923
Bromoform	U		0.000471	0.00111	1	03/19/2025 13:54	WG2471923
Bromomethane	U	C3	0.00130	0.00555	1	03/19/2025 13:54	WG2471923
Carbon disulfide	U		0.000778	0.00111	1	03/19/2025 13:54	WG2471923
Carbon tetrachloride	U		0.000275	0.00111	1	03/19/2025 13:54	WG2471923
Chlorobenzene	U		0.000213	0.00111	1	03/19/2025 13:54	WG2471923
Chlorodibromomethane	U		0.000249	0.00111	1	03/19/2025 13:54	WG2471923
Chloroethane	U		0.00111	0.00555	1	03/19/2025 13:54	WG2471923
Chloroform	U		0.00114	0.00555	1	03/19/2025 13:54	WG2471923
Chloromethane	U	C3	0.000722	0.00278	1	03/19/2025 13:54	WG2471923
Cyclohexane	U		0.000298	0.00111	1	03/19/2025 13:54	WG2471923
1,2-Dibromo-3-Chloropropane	U		0.00211	0.00555	1	03/19/2025 13:54	WG2471923
1,2-Dibromoethane	U		0.000278	0.00111	1	03/19/2025 13:54	WG2471923
Dichlorodifluoromethane	U		0.000319	0.00555	1	03/19/2025 13:54	WG2471923
1,1-Dichloroethane	U		0.000298	0.00111	1	03/19/2025 13:54	WG2471923

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000500	0.00111	1	03/19/2025 13:54	WG2471923
1,2-Dichlorobenzene	U		0.000472	0.00111	1	03/19/2025 13:54	WG2471923
1,3-Dichlorobenzene	U		0.000667	0.00111	1	03/19/2025 13:54	WG2471923
1,4-Dichlorobenzene	U		0.000922	0.00111	1	03/19/2025 13:54	WG2471923
1,1-Dichloroethene	U		0.000394	0.00111	1	03/19/2025 13:54	WG2471923
cis-1,2-Dichloroethene	U		0.000528	0.00111	1	03/19/2025 13:54	WG2471923
trans-1,2-Dichloroethene	U		0.000555	0.00111	1	03/19/2025 13:54	WG2471923
1,2-Dichloropropane	U		0.000182	0.00111	1	03/19/2025 13:54	WG2471923
cis-1,3-Dichloropropene	U		0.000472	0.00111	1	03/19/2025 13:54	WG2471923
trans-1,3-Dichloropropene	U		0.000750	0.00111	1	03/19/2025 13:54	WG2471923
Ethylbenzene	U		0.000333	0.00111	1	03/19/2025 13:54	WG2471923
2-Hexanone	U		0.00199	0.0111	1	03/19/2025 13:54	WG2471923
Isopropylbenzene	U		0.000472	0.00111	1	03/19/2025 13:54	WG2471923
2-Butanone (MEK)	U		0.00520	0.0111	1	03/19/2025 13:54	WG2471923
Methyl Acetate	U		0.00333	0.0222	1	03/19/2025 13:54	WG2471923
Methyl Cyclohexane	U		0.000861	0.00111	1	03/19/2025 13:54	WG2471923
Methylene Chloride	U		0.00111	0.00555	1	03/19/2025 13:54	WG2471923
4-Methyl-2-pentanone (MIBK)	U		0.00106	0.0111	1	03/19/2025 13:54	WG2471923
Methyl tert-butyl ether	U		0.000389	0.00111	1	03/19/2025 13:54	WG2471923
Styrene	U		0.000248	0.00111	1	03/19/2025 13:54	WG2471923
1,1,2,2-Tetrachloroethane	U		0.000257	0.00111	1	03/19/2025 13:54	WG2471923
Tetrachloroethene	U		0.000361	0.00111	1	03/19/2025 13:54	WG2471923
Toluene	U		0.00137	0.00555	1	03/19/2025 13:54	WG2471923
1,2,3-Trichlorobenzene	U		0.000340	0.00111	1	03/19/2025 13:54	WG2471923
1,2,4-Trichlorobenzene	U		0.000431	0.00111	1	03/19/2025 13:54	WG2471923
1,1,1-Trichloroethane	U		0.000411	0.00111	1	03/19/2025 13:54	WG2471923
1,1,2-Trichloroethane	U		0.000472	0.00111	1	03/19/2025 13:54	WG2471923
Trichloroethene	U		0.000222	0.00111	1	03/19/2025 13:54	WG2471923
Trichlorofluoromethane	U		0.000395	0.00555	1	03/19/2025 13:54	WG2471923
1,1,2-Trichlorotrifluoroethane	U		0.000473	0.00111	1	03/19/2025 13:54	WG2471923
Vinyl chloride	U		0.000251	0.00111	1	03/19/2025 13:54	WG2471923
Xylenes, Total	U		0.000555	0.00333	1	03/19/2025 13:54	WG2471923
tert-Butyl alcohol	U		0.00278	0.00555	1	03/19/2025 13:54	WG2471923
(S) Toluene-d8	*98.1*			*75.0-131*		*03/19/2025 13:54*	WG2471923
(S) 4-Bromofluorobenzene	*97.0*			*67.0-138*		*03/19/2025 13:54*	WG2471923
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*03/19/2025 13:54*	WG2471923

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1	03/19/2025 13:54	WG2471923		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00255	0.00667	1	03/21/2025 19:32	WG2473603
Acenaphthene	U		0.00232	0.00667	1	03/21/2025 19:32	WG2473603
Acenaphthylene	U		0.00240	0.00667	1	03/21/2025 19:32	WG2473603
Benzo(a)anthracene	U		0.00192	0.00667	1	03/21/2025 19:32	WG2473603
Benzo(a)pyrene	U		0.00199	0.00667	1	03/21/2025 19:32	WG2473603
Benzo(b)fluoranthene	U		0.00170	0.00667	1	03/21/2025 19:32	WG2473603
Benzo(g,h,i)perylene	U		0.00197	0.00667	1	03/21/2025 19:32	WG2473603

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	U		0.00239	0.00667	1	03/21/2025 19:32	WG2473603
Chrysene	U		0.00258	0.00667	1	03/21/2025 19:32	WG2473603
Dibenz(a,h)anthracene	U		0.00191	0.00667	1	03/21/2025 19:32	WG2473603
Fluoranthene	U		0.00252	0.00667	1	03/21/2025 19:32	WG2473603
Fluorene	U		0.00228	0.00667	1	03/21/2025 19:32	WG2473603
Indeno(1,2,3-cd)pyrene	U		0.00201	0.00667	1	03/21/2025 19:32	WG2473603
Naphthalene	U		0.00453	0.0222	1	03/21/2025 19:32	WG2473603
Phenanthrene	U		0.00257	0.00667	1	03/21/2025 19:32	WG2473603
Pyrene	U		0.00222	0.00667	1	03/21/2025 19:32	WG2473603
1-Methylnaphthalene	U		0.00499	0.0222	1	03/21/2025 19:32	WG2473603
2-Methylnaphthalene	U		0.00474	0.0222	1	03/21/2025 19:32	WG2473603
2-Chloronaphthalene	U		0.00518	0.0222	1	03/21/2025 19:32	WG2473603
(S) p-Terphenyl-d14	*84.4*			*23.0-120*		*03/21/2025 19:32*	WG2473603
(S) Nitrobenzene-d5	*89.1*			*14.0-149*		*03/21/2025 19:32*	WG2473603
(S) 2-Fluorobiphenyl	*82.9*			*34.0-125*		*03/21/2025 19:32*	WG2473603

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0700	0.200	1	03/18/2025 22:15	WG2470787

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	438		16.0	100	1	03/20/2025 20:43	WG2471877
Antimony,Dissolved	2.44	J	0.310	4.00	1	03/20/2025 20:43	WG2471877
Arsenic,Dissolved	0.572	J	0.120	2.00	1	03/20/2025 20:43	WG2471877
Barium,Dissolved	19.4		0.500	2.00	1	03/20/2025 20:43	WG2471877
Beryllium,Dissolved	U		0.200	2.00	1	03/20/2025 20:43	WG2471877
Cadmium,Dissolved	U		0.120	1.00	1	03/20/2025 20:43	WG2471877
Calcium,Dissolved	27100		92.5	1000	1	03/20/2025 20:43	WG2471877
Chromium,Dissolved	U		0.900	2.00	1	03/20/2025 20:43	WG2471877
Copper,Dissolved	3.86	J	0.700	5.00	1	03/20/2025 20:43	WG2471877
Cobalt,Dissolved	0.376	J	0.100	2.00	1	03/20/2025 20:43	WG2471877
Iron,Dissolved	210		22.6	100	1	03/20/2025 20:43	WG2471877
Lead,Dissolved	U		0.500	2.00	1	03/20/2025 20:43	WG2471877
Magnesium,Dissolved	3250		82.7	1000	1	03/20/2025 20:43	WG2471877
Manganese,Dissolved	102		0.700	5.00	1	03/20/2025 20:43	WG2471877
Nickel,Dissolved	1.52	J	0.500	2.00	1	03/20/2025 20:43	WG2471877
Potassium,Dissolved	4620		96.5	2000	1	03/20/2025 20:43	WG2471877
Selenium,Dissolved	0.645	J	0.250	2.00	1	03/20/2025 20:43	WG2471877
Silver,Dissolved	U		0.110	2.00	1	03/20/2025 20:43	WG2471877
Sodium,Dissolved	95000		142	2000	1	03/20/2025 20:43	WG2471877
Thallium,Dissolved	U		0.130	2.00	1	03/20/2025 20:43	WG2471877
Vanadium,Dissolved	1.33	J	0.520	5.00	1	03/20/2025 20:43	WG2471877
Zinc,Dissolved	U		4.00	25.0	1	03/20/2025 20:43	WG2471877

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	11.3	50.0	1	03/22/2025 17:29	WG2474420
Benzene	0.188	J	0.0941	1.00	1	03/22/2025 17:29	WG2474420
Bromochloromethane	U		0.128	1.00	1	03/22/2025 17:29	WG2474420
Bromodichloromethane	U		0.136	1.00	1	03/22/2025 17:29	WG2474420
Bromoform	U		0.129	1.00	1	03/22/2025 17:29	WG2474420
Bromomethane	U	C3	0.605	5.00	1	03/22/2025 17:29	WG2474420
Carbon disulfide	U		0.0962	1.00	1	03/22/2025 17:29	WG2474420
Carbon tetrachloride	U		0.128	1.00	1	03/22/2025 17:29	WG2474420
Chlorobenzene	U		0.116	1.00	1	03/22/2025 17:29	WG2474420
Chlorodibromomethane	U		0.140	1.00	1	03/22/2025 17:29	WG2474420
Chloroethane	U	C3	0.192	5.00	1	03/22/2025 17:29	WG2474420
Chloroform	U		0.111	5.00	1	03/22/2025 17:29	WG2474420
Chloromethane	U		0.960	2.50	1	03/22/2025 17:29	WG2474420
Cyclohexane	U		0.188	1.00	1	03/22/2025 17:29	WG2474420
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/22/2025 17:29	WG2474420
1,2-Dibromoethane	U		0.126	1.00	1	03/22/2025 17:29	WG2474420
1,2-Dichlorobenzene	U		0.107	1.00	1	03/22/2025 17:29	WG2474420
1,3-Dichlorobenzene	U		0.110	1.00	1	03/22/2025 17:29	WG2474420
1,4-Dichlorobenzene	U		0.120	1.00	1	03/22/2025 17:29	WG2474420
Dichlorodifluoromethane	U		0.374	5.00	1	03/22/2025 17:29	WG2474420
1,1-Dichloroethane	U		0.100	1.00	1	03/22/2025 17:29	WG2474420
1,2-Dichloroethane	U		0.0819	1.00	1	03/22/2025 17:29	WG2474420
1,1-Dichloroethene	U		0.188	1.00	1	03/22/2025 17:29	WG2474420
cis-1,2-Dichloroethene	2.62		0.126	1.00	1	03/22/2025 17:29	WG2474420

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 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
trans-1,2-Dichloroethene	1.32		0.149	1.00	1	03/22/2025 17:29	WG2474420
1,2-Dichloropropane	U		0.149	1.00	1	03/22/2025 17:29	WG2474420
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/22/2025 17:29	WG2474420
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/22/2025 17:29	WG2474420
Ethylbenzene	U		0.137	1.00	1	03/22/2025 17:29	WG2474420
2-Hexanone	U		0.787	10.0	1	03/22/2025 17:29	WG2474420
Isopropylbenzene	U		0.105	1.00	1	03/22/2025 17:29	WG2474420
2-Butanone (MEK)	U		1.19	10.0	1	03/22/2025 17:29	WG2474420
Methyl Acetate	U		1.29	20.0	1	03/22/2025 17:29	WG2474420
Methyl Cyclohexane	U		0.660	1.00	1	03/22/2025 17:29	WG2474420
Methylene Chloride	U		0.430	5.00	1	03/22/2025 17:29	WG2474420
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/22/2025 17:29	WG2474420
Methyl tert-butyl ether	0.122	J	0.101	1.00	1	03/22/2025 17:29	WG2474420
Naphthalene	U	C3	1.00	5.00	1	03/22/2025 17:29	WG2474420
tert-Butyl alcohol	U	C3	4.06	5.00	1	03/22/2025 17:29	WG2474420
Styrene	U		0.118	1.00	1	03/22/2025 17:29	WG2474420
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/22/2025 17:29	WG2474420
Tetrachloroethene	U		0.300	1.00	1	03/22/2025 17:29	WG2474420
Toluene	U		0.278	1.00	1	03/22/2025 17:29	WG2474420
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/22/2025 17:29	WG2474420
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/22/2025 17:29	WG2474420
1,1,1-Trichloroethane	U		0.149	1.00	1	03/22/2025 17:29	WG2474420
1,1,2-Trichloroethane	U		0.158	1.00	1	03/22/2025 17:29	WG2474420
Trichloroethene	2.36		0.190	1.00	1	03/22/2025 17:29	WG2474420
Trichlorofluoromethane	U		0.160	5.00	1	03/22/2025 17:29	WG2474420
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/22/2025 17:29	WG2474420
Vinyl chloride	U	C3	0.234	1.00	1	03/22/2025 17:29	WG2474420
Xylenes, Total	U		0.174	3.00	1	03/22/2025 17:29	WG2474420
(S) Toluene-d8	*106*			*80.0-120*		*03/22/2025 17:29*	WG2474420
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*03/22/2025 17:29*	WG2474420
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*03/22/2025 17:29*	WG2474420

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	CAS #	RT
	ug/l		ug/l	ug/l		date / time			
Total Tic	0.000		0.000	0.000	1	03/22/2025 17:29	WG2474420		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	0.0488	J	0.0190	0.0500	1	03/19/2025 01:40	WG2471291
Acenaphthene	0.112		0.0190	0.0500	1	03/19/2025 01:40	WG2471291
Acenaphthylene	0.114		0.0171	0.0500	1	03/19/2025 01:40	WG2471291
Benzo(a)anthracene	U		0.0203	0.0500	1	03/19/2025 01:40	WG2471291
Benzo(a)pyrene	U		0.0184	0.0500	1	03/19/2025 01:40	WG2471291
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/19/2025 01:40	WG2471291
Benzo(g,h,i)perylene	U		0.0184	0.0500	1	03/19/2025 01:40	WG2471291
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/19/2025 01:40	WG2471291
Chrysene	U		0.0179	0.0500	1	03/19/2025 01:40	WG2471291
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/19/2025 01:40	WG2471291
Fluoranthene	0.0481	J	0.0270	0.100	1	03/19/2025 01:40	WG2471291
Fluorene	0.216		0.0169	0.0500	1	03/19/2025 01:40	WG2471291

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/19/2025 01:40	WG2471291
Naphthalene	1.68		0.0917	0.250	1	03/19/2025 01:40	WG2471291
Phenanthrene	0.363		0.0180	0.0500	1	03/19/2025 01:40	WG2471291
Pyrene	0.0396	J	0.0169	0.0500	1	03/19/2025 01:40	WG2471291
1-Methylnaphthalene	0.833		0.0687	0.250	1	03/19/2025 01:40	WG2471291
2-Methylnaphthalene	0.749		0.0674	0.250	1	03/19/2025 01:40	WG2471291
2-Chloronaphthalene	U		0.0682	0.250	1	03/19/2025 01:40	WG2471291
(S) Nitrobenzene-d5	*111*			*31.0-160*		*03/19/2025 01:40*	WG2471291
(S) 2-Fluorobiphenyl	*91.1*			*48.0-148*		*03/19/2025 01:40*	WG2471291
(S) p-Terphenyl-d14	*87.9*			*37.0-146*		*03/19/2025 01:40*	WG2471291

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0700	0.200	1	03/18/2025 22:17	WG2470787

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aluminum,Dissolved	237		16.0	100	1	03/20/2025 20:46	WG2471877
Antimony,Dissolved	1.89	J	0.310	4.00	1	03/20/2025 20:46	WG2471877
Arsenic,Dissolved	1.32	J	0.120	2.00	1	03/20/2025 20:46	WG2471877
Barium,Dissolved	31.9		0.500	2.00	1	03/20/2025 20:46	WG2471877
Beryllium,Dissolved	U		0.200	2.00	1	03/20/2025 20:46	WG2471877
Cadmium,Dissolved	0.167	J	0.120	1.00	1	03/20/2025 20:46	WG2471877
Calcium,Dissolved	41100		92.5	1000	1	03/20/2025 20:46	WG2471877
Chromium,Dissolved	U		0.900	2.00	1	03/20/2025 20:46	WG2471877
Copper,Dissolved	5.11		0.700	5.00	1	03/20/2025 20:46	WG2471877
Cobalt,Dissolved	1.54	J	0.100	2.00	1	03/20/2025 20:46	WG2471877
Iron,Dissolved	147		22.6	100	1	03/20/2025 20:46	WG2471877
Lead,Dissolved	U		0.500	2.00	1	03/20/2025 20:46	WG2471877
Magnesium,Dissolved	5440		82.7	1000	1	03/20/2025 20:46	WG2471877
Manganese,Dissolved	790		0.700	5.00	1	03/20/2025 20:46	WG2471877
Nickel,Dissolved	3.19		0.500	2.00	1	03/20/2025 20:46	WG2471877
Potassium,Dissolved	8540		96.5	2000	1	03/20/2025 20:46	WG2471877
Selenium,Dissolved	0.955	J	0.250	2.00	1	03/20/2025 20:46	WG2471877
Silver,Dissolved	U		0.110	2.00	1	03/20/2025 20:46	WG2471877
Sodium,Dissolved	150000		142	2000	1	03/20/2025 20:46	WG2471877
Thallium,Dissolved	U		0.130	2.00	1	03/20/2025 20:46	WG2471877
Vanadium,Dissolved	7.76		0.520	5.00	1	03/20/2025 20:46	WG2471877
Zinc,Dissolved	4.91	J	4.00	25.0	1	03/20/2025 20:46	WG2471877

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/22/2025 17:49	WG2474420
Benzene	U		0.0941	1.00	1	03/22/2025 17:49	WG2474420
Bromochloromethane	U		0.128	1.00	1	03/22/2025 17:49	WG2474420
Bromodichloromethane	U		0.136	1.00	1	03/22/2025 17:49	WG2474420
Bromoform	U		0.129	1.00	1	03/22/2025 17:49	WG2474420
Bromomethane	U	C3	0.605	5.00	1	03/22/2025 17:49	WG2474420
Carbon disulfide	0.203	J	0.0962	1.00	1	03/22/2025 17:49	WG2474420
Carbon tetrachloride	U		0.128	1.00	1	03/22/2025 17:49	WG2474420
Chlorobenzene	U		0.116	1.00	1	03/22/2025 17:49	WG2474420
Chlorodibromomethane	U		0.140	1.00	1	03/22/2025 17:49	WG2474420
Chloroethane	U	C3	0.192	5.00	1	03/22/2025 17:49	WG2474420
Chloroform	U		0.111	5.00	1	03/22/2025 17:49	WG2474420
Chloromethane	U		0.960	2.50	1	03/22/2025 17:49	WG2474420
Cyclohexane	U		0.188	1.00	1	03/22/2025 17:49	WG2474420
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/22/2025 17:49	WG2474420
1,2-Dibromoethane	U		0.126	1.00	1	03/22/2025 17:49	WG2474420
1,2-Dichlorobenzene	U		0.107	1.00	1	03/22/2025 17:49	WG2474420
1,3-Dichlorobenzene	U		0.110	1.00	1	03/22/2025 17:49	WG2474420
1,4-Dichlorobenzene	U		0.120	1.00	1	03/22/2025 17:49	WG2474420
Dichlorodifluoromethane	U		0.374	5.00	1	03/22/2025 17:49	WG2474420
1,1-Dichloroethane	U		0.100	1.00	1	03/22/2025 17:49	WG2474420
1,2-Dichloroethane	U		0.0819	1.00	1	03/22/2025 17:49	WG2474420
1,1-Dichloroethene	U		0.188	1.00	1	03/22/2025 17:49	WG2474420
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/22/2025 17:49	WG2474420

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/22/2025 17:49	WG2474420
1,2-Dichloropropane	U		0.149	1.00	1	03/22/2025 17:49	WG2474420
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/22/2025 17:49	WG2474420
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/22/2025 17:49	WG2474420
Ethylbenzene	U		0.137	1.00	1	03/22/2025 17:49	WG2474420
2-Hexanone	U		0.787	10.0	1	03/22/2025 17:49	WG2474420
Isopropylbenzene	U		0.105	1.00	1	03/22/2025 17:49	WG2474420
2-Butanone (MEK)	U		1.19	10.0	1	03/22/2025 17:49	WG2474420
Methyl Acetate	U		1.29	20.0	1	03/22/2025 17:49	WG2474420
Methyl Cyclohexane	U		0.660	1.00	1	03/22/2025 17:49	WG2474420
Methylene Chloride	U		0.430	5.00	1	03/22/2025 17:49	WG2474420
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/22/2025 17:49	WG2474420
Methyl tert-butyl ether	U		0.101	1.00	1	03/22/2025 17:49	WG2474420
Naphthalene	U	C3	1.00	5.00	1	03/22/2025 17:49	WG2474420
tert-Butyl alcohol	U	C3	4.06	5.00	1	03/22/2025 17:49	WG2474420
Styrene	U		0.118	1.00	1	03/22/2025 17:49	WG2474420
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/22/2025 17:49	WG2474420
Tetrachloroethene	U		0.300	1.00	1	03/22/2025 17:49	WG2474420
Toluene	U		0.278	1.00	1	03/22/2025 17:49	WG2474420
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/22/2025 17:49	WG2474420
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/22/2025 17:49	WG2474420
1,1,1-Trichloroethane	U		0.149	1.00	1	03/22/2025 17:49	WG2474420
1,1,2-Trichloroethane	U		0.158	1.00	1	03/22/2025 17:49	WG2474420
Trichloroethene	U		0.190	1.00	1	03/22/2025 17:49	WG2474420
Trichlorofluoromethane	U		0.160	5.00	1	03/22/2025 17:49	WG2474420
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/22/2025 17:49	WG2474420
Vinyl chloride	U	C3	0.234	1.00	1	03/22/2025 17:49	WG2474420
Xylenes, Total	U		0.174	3.00	1	03/22/2025 17:49	WG2474420
(S) Toluene-d8	*104*			*80.0-120*		*03/22/2025 17:49*	WG2474420
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*03/22/2025 17:49*	WG2474420
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*03/22/2025 17:49*	WG2474420

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch	CAS #	RT
	ug/l		ug/l	ug/l		date / time			
Total Tic	0.000		0.000	0.000	1	03/22/2025 17:49	WG2474420		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0950	0.250	5	03/19/2025 06:15	WG2471291
Acenaphthene	U		0.0950	0.250	5	03/19/2025 06:15	WG2471291
Acenaphthylene	U		0.0855	0.250	5	03/19/2025 06:15	WG2471291
Benzo(a)anthracene	U		0.102	0.250	5	03/19/2025 06:15	WG2471291
Benzo(a)pyrene	U		0.0920	0.250	5	03/19/2025 06:15	WG2471291
Benzo(b)fluoranthene	U		0.0840	0.250	5	03/19/2025 06:15	WG2471291
Benzo(g,h,i)perylene	U		0.0920	0.250	5	03/19/2025 06:15	WG2471291
Benzo(k)fluoranthene	U		0.101	0.250	5	03/19/2025 06:15	WG2471291
Chrysene	U		0.0895	0.250	5	03/19/2025 06:15	WG2471291
Dibenz(a,h)anthracene	U		0.0800	0.250	5	03/19/2025 06:15	WG2471291
Fluoranthene	U		0.135	0.500	5	03/19/2025 06:15	WG2471291
Fluorene	U		0.0845	0.250	5	03/19/2025 06:15	WG2471291

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	U		0.0790	0.250	5	03/19/2025 06:15	WG2471291
Naphthalene	U		0.459	1.25	5	03/19/2025 06:15	WG2471291
Phenanthrene	0.211	J	0.0900	0.250	5	03/19/2025 06:15	WG2471291
Pyrene	0.0904	J	0.0845	0.250	5	03/19/2025 06:15	WG2471291
1-Methylnaphthalene	U		0.343	1.25	5	03/19/2025 06:15	WG2471291
2-Methylnaphthalene	U		0.337	1.25	5	03/19/2025 06:15	WG2471291
2-Chloronaphthalene	U		0.341	1.25	5	03/19/2025 06:15	WG2471291
(S) Nitrobenzene-d5	*78.4*			*31.0-160*		*03/19/2025 06:15*	WG2471291
(S) 2-Fluorobiphenyl	*29.3*	J2		*48.0-148*		*03/19/2025 06:15*	WG2471291
(S) p-Terphenyl-d14	*17.2*	J2		*37.0-146*		*03/19/2025 06:15*	WG2471291

Sample Narrative:

L1836825-07 WG2471291: Dilution due to matrix impact during concentration procedure. Surrogate failure due to matrix.

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0700	0.200	1	03/18/2025 22:25	WG2470787

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Aluminum,Dissolved	113		16.0	100	1	03/20/2025 20:49	WG2471877
Antimony,Dissolved	0.905	J	0.310	4.00	1	03/20/2025 20:49	WG2471877
Arsenic,Dissolved	1.78	J	0.120	2.00	1	03/20/2025 20:49	WG2471877
Barium,Dissolved	110		0.500	2.00	1	03/20/2025 20:49	WG2471877
Beryllium,Dissolved	U		0.200	2.00	1	03/20/2025 20:49	WG2471877
Cadmium,Dissolved	0.136	J	0.120	1.00	1	03/20/2025 20:49	WG2471877
Calcium,Dissolved	129000		92.5	1000	1	03/20/2025 20:49	WG2471877
Chromium,Dissolved	U		0.900	2.00	1	03/20/2025 20:49	WG2471877
Copper,Dissolved	8.70		0.700	5.00	1	03/20/2025 20:49	WG2471877
Cobalt,Dissolved	2.32		0.100	2.00	1	03/20/2025 20:49	WG2471877
Iron,Dissolved	43.7	J	22.6	100	1	03/20/2025 20:49	WG2471877
Lead,Dissolved	U		0.500	2.00	1	03/20/2025 20:49	WG2471877
Magnesium,Dissolved	17900		82.7	1000	1	03/20/2025 20:49	WG2471877
Manganese,Dissolved	802		0.700	5.00	1	03/20/2025 20:49	WG2471877
Nickel,Dissolved	5.74		0.500	2.00	1	03/20/2025 20:49	WG2471877
Potassium,Dissolved	18200		96.5	2000	1	03/20/2025 20:49	WG2471877
Selenium,Dissolved	1.54	J	0.250	2.00	1	03/20/2025 20:49	WG2471877
Silver,Dissolved	U		0.110	2.00	1	03/20/2025 20:49	WG2471877
Sodium,Dissolved	390000		142	2000	1	03/20/2025 20:49	WG2471877
Thallium,Dissolved	U		0.130	2.00	1	03/20/2025 20:49	WG2471877
Vanadium,Dissolved	13.3		0.520	5.00	1	03/20/2025 20:49	WG2471877
Zinc,Dissolved	U		4.00	25.0	1	03/20/2025 20:49	WG2471877

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	11.3	50.0	1	03/22/2025 18:10	WG2474420
Benzene	0.249	J	0.0941	1.00	1	03/22/2025 18:10	WG2474420
Bromochloromethane	U		0.128	1.00	1	03/22/2025 18:10	WG2474420
Bromodichloromethane	U		0.136	1.00	1	03/22/2025 18:10	WG2474420
Bromoform	U		0.129	1.00	1	03/22/2025 18:10	WG2474420
Bromomethane	U	C3	0.605	5.00	1	03/22/2025 18:10	WG2474420
Carbon disulfide	U		0.0962	1.00	1	03/22/2025 18:10	WG2474420
Carbon tetrachloride	U		0.128	1.00	1	03/22/2025 18:10	WG2474420
Chlorobenzene	U		0.116	1.00	1	03/22/2025 18:10	WG2474420
Chlorodibromomethane	U		0.140	1.00	1	03/22/2025 18:10	WG2474420
Chloroethane	U	C3	0.192	5.00	1	03/22/2025 18:10	WG2474420
Chloroform	U		0.111	5.00	1	03/22/2025 18:10	WG2474420
Chloromethane	U		0.960	2.50	1	03/22/2025 18:10	WG2474420
Cyclohexane	U		0.188	1.00	1	03/22/2025 18:10	WG2474420
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/22/2025 18:10	WG2474420
1,2-Dibromoethane	U		0.126	1.00	1	03/22/2025 18:10	WG2474420
1,2-Dichlorobenzene	U		0.107	1.00	1	03/22/2025 18:10	WG2474420
1,3-Dichlorobenzene	U		0.110	1.00	1	03/22/2025 18:10	WG2474420
1,4-Dichlorobenzene	U		0.120	1.00	1	03/22/2025 18:10	WG2474420
Dichlorodifluoromethane	U		0.374	5.00	1	03/22/2025 18:10	WG2474420
1,1-Dichloroethane	U		0.100	1.00	1	03/22/2025 18:10	WG2474420
1,2-Dichloroethane	U		0.0819	1.00	1	03/22/2025 18:10	WG2474420
1,1-Dichloroethene	U		0.188	1.00	1	03/22/2025 18:10	WG2474420
cis-1,2-Dichloroethene	2.45		0.126	1.00	1	03/22/2025 18:10	WG2474420

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 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	1.30		0.149	1.00	1	03/22/2025 18:10	WG2474420
1,2-Dichloropropane	U		0.149	1.00	1	03/22/2025 18:10	WG2474420
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/22/2025 18:10	WG2474420
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/22/2025 18:10	WG2474420
Ethylbenzene	U		0.137	1.00	1	03/22/2025 18:10	WG2474420
2-Hexanone	U		0.787	10.0	1	03/22/2025 18:10	WG2474420
Isopropylbenzene	U		0.105	1.00	1	03/22/2025 18:10	WG2474420
2-Butanone (MEK)	U		1.19	10.0	1	03/22/2025 18:10	WG2474420
Methyl Acetate	U		1.29	20.0	1	03/22/2025 18:10	WG2474420
Methyl Cyclohexane	U		0.660	1.00	1	03/22/2025 18:10	WG2474420
Methylene Chloride	U		0.430	5.00	1	03/22/2025 18:10	WG2474420
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/22/2025 18:10	WG2474420
Methyl tert-butyl ether	U		0.101	1.00	1	03/22/2025 18:10	WG2474420
Naphthalene	U	C3	1.00	5.00	1	03/22/2025 18:10	WG2474420
tert-Butyl alcohol	U	C3	4.06	5.00	1	03/22/2025 18:10	WG2474420
Styrene	U		0.118	1.00	1	03/22/2025 18:10	WG2474420
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/22/2025 18:10	WG2474420
Tetrachloroethene	U		0.300	1.00	1	03/22/2025 18:10	WG2474420
Toluene	U		0.278	1.00	1	03/22/2025 18:10	WG2474420
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/22/2025 18:10	WG2474420
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/22/2025 18:10	WG2474420
1,1,1-Trichloroethane	U		0.149	1.00	1	03/22/2025 18:10	WG2474420
1,1,2-Trichloroethane	U		0.158	1.00	1	03/22/2025 18:10	WG2474420
Trichloroethene	2.27		0.190	1.00	1	03/22/2025 18:10	WG2474420
Trichlorofluoromethane	U		0.160	5.00	1	03/22/2025 18:10	WG2474420
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/22/2025 18:10	WG2474420
Vinyl chloride	U	C3	0.234	1.00	1	03/22/2025 18:10	WG2474420
Xylenes, Total	U		0.174	3.00	1	03/22/2025 18:10	WG2474420
(S) Toluene-d8	*108*			*80.0-120*		*03/22/2025 18:10*	WG2474420
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*03/22/2025 18:10*	WG2474420
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*03/22/2025 18:10*	WG2474420

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1	03/22/2025 18:10	WG2474420		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	0.0446	J	0.0190	0.0500	1	03/19/2025 01:57	WG2471291
Acenaphthene	0.0784		0.0190	0.0500	1	03/19/2025 01:57	WG2471291
Acenaphthylene	0.0684		0.0171	0.0500	1	03/19/2025 01:57	WG2471291
Benzo(a)anthracene	U		0.0203	0.0500	1	03/19/2025 01:57	WG2471291
Benzo(a)pyrene	U		0.0184	0.0500	1	03/19/2025 01:57	WG2471291
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/19/2025 01:57	WG2471291
Benzo(g,h,i)perylene	U		0.0184	0.0500	1	03/19/2025 01:57	WG2471291
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/19/2025 01:57	WG2471291
Chrysene	U		0.0179	0.0500	1	03/19/2025 01:57	WG2471291
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/19/2025 01:57	WG2471291
Fluoranthene	0.0605	J	0.0270	0.100	1	03/19/2025 01:57	WG2471291
Fluorene	0.154		0.0169	0.0500	1	03/19/2025 01:57	WG2471291

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/19/2025 01:57	WG2471291
Naphthalene	0.796		0.0917	0.250	1	03/19/2025 01:57	WG2471291
Phenanthrene	0.329		0.0180	0.0500	1	03/19/2025 01:57	WG2471291
Pyrene	0.0504		0.0169	0.0500	1	03/19/2025 01:57	WG2471291
1-Methylnaphthalene	0.490		0.0687	0.250	1	03/19/2025 01:57	WG2471291
2-Methylnaphthalene	0.478		0.0674	0.250	1	03/19/2025 01:57	WG2471291
2-Chloronaphthalene	U		0.0682	0.250	1	03/19/2025 01:57	WG2471291
(S) Nitrobenzene-d5	*114*			*31.0-160*		*03/19/2025 01:57*	WG2471291
(S) 2-Fluorobiphenyl	*93.7*			*48.0-148*		*03/19/2025 01:57*	WG2471291
(S) p-Terphenyl-d14	*90.0*			*37.0-146*		*03/19/2025 01:57*	WG2471291

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0700	0.200	1	03/18/2025 22:27	WG2470787

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aluminum,Dissolved	19.1	J	16.0	100	1	03/20/2025 20:53	WG2471877
Antimony,Dissolved	0.733	J	0.310	4.00	1	03/20/2025 20:53	WG2471877
Arsenic,Dissolved	1.88	J	0.120	2.00	1	03/20/2025 20:53	WG2471877
Barium,Dissolved	104		0.500	2.00	1	03/20/2025 20:53	WG2471877
Beryllium,Dissolved	U		0.200	2.00	1	03/20/2025 20:53	WG2471877
Cadmium,Dissolved	0.171	J	0.120	1.00	1	03/20/2025 20:53	WG2471877
Calcium,Dissolved	144000		92.5	1000	1	03/20/2025 20:53	WG2471877
Chromium,Dissolved	U		0.900	2.00	1	03/20/2025 20:53	WG2471877
Copper,Dissolved	6.80		0.700	5.00	1	03/20/2025 20:53	WG2471877
Cobalt,Dissolved	3.77		0.100	2.00	1	03/20/2025 20:53	WG2471877
Iron,Dissolved	U		22.6	100	1	03/20/2025 20:53	WG2471877
Lead,Dissolved	U		0.500	2.00	1	03/20/2025 20:53	WG2471877
Magnesium,Dissolved	17200		82.7	1000	1	03/20/2025 20:53	WG2471877
Manganese,Dissolved	803		0.700	5.00	1	03/20/2025 20:53	WG2471877
Nickel,Dissolved	7.78		0.500	2.00	1	03/20/2025 20:53	WG2471877
Potassium,Dissolved	18900		96.5	2000	1	03/20/2025 20:53	WG2471877
Selenium,Dissolved	2.51		0.250	2.00	1	03/20/2025 21:40	WG2471877
Silver,Dissolved	U		0.110	2.00	1	03/20/2025 20:53	WG2471877
Sodium,Dissolved	391000		142	2000	1	03/20/2025 20:53	WG2471877
Thallium,Dissolved	U		0.130	2.00	1	03/20/2025 20:53	WG2471877
Vanadium,Dissolved	37.1		0.520	5.00	1	03/20/2025 20:53	WG2471877
Zinc,Dissolved	U		4.00	25.0	1	03/20/2025 20:53	WG2471877

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/22/2025 18:30	WG2474420
Benzene	U		0.0941	1.00	1	03/22/2025 18:30	WG2474420
Bromochloromethane	U		0.128	1.00	1	03/22/2025 18:30	WG2474420
Bromodichloromethane	U		0.136	1.00	1	03/22/2025 18:30	WG2474420
Bromoform	U		0.129	1.00	1	03/22/2025 18:30	WG2474420
Bromomethane	U	C3	0.605	5.00	1	03/22/2025 18:30	WG2474420
Carbon disulfide	U		0.0962	1.00	1	03/22/2025 18:30	WG2474420
Carbon tetrachloride	U		0.128	1.00	1	03/22/2025 18:30	WG2474420
Chlorobenzene	U		0.116	1.00	1	03/22/2025 18:30	WG2474420
Chlorodibromomethane	U		0.140	1.00	1	03/22/2025 18:30	WG2474420
Chloroethane	U	C3	0.192	5.00	1	03/22/2025 18:30	WG2474420
Chloroform	U		0.111	5.00	1	03/22/2025 18:30	WG2474420
Chloromethane	U		0.960	2.50	1	03/22/2025 18:30	WG2474420
Cyclohexane	U		0.188	1.00	1	03/22/2025 18:30	WG2474420
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/22/2025 18:30	WG2474420
1,2-Dibromoethane	U		0.126	1.00	1	03/22/2025 18:30	WG2474420
1,2-Dichlorobenzene	U		0.107	1.00	1	03/22/2025 18:30	WG2474420
1,3-Dichlorobenzene	U		0.110	1.00	1	03/22/2025 18:30	WG2474420
1,4-Dichlorobenzene	U		0.120	1.00	1	03/22/2025 18:30	WG2474420
Dichlorodifluoromethane	U		0.374	5.00	1	03/22/2025 18:30	WG2474420
1,1-Dichloroethane	U		0.100	1.00	1	03/22/2025 18:30	WG2474420
1,2-Dichloroethane	U		0.0819	1.00	1	03/22/2025 18:30	WG2474420
1,1-Dichloroethene	U		0.188	1.00	1	03/22/2025 18:30	WG2474420
cis-1,2-Dichloroethene	U		0.126	1.00	1	03/22/2025 18:30	WG2474420

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/22/2025 18:30	WG2474420
1,2-Dichloropropane	U		0.149	1.00	1	03/22/2025 18:30	WG2474420
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/22/2025 18:30	WG2474420
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/22/2025 18:30	WG2474420
Ethylbenzene	U		0.137	1.00	1	03/22/2025 18:30	WG2474420
2-Hexanone	U		0.787	10.0	1	03/22/2025 18:30	WG2474420
Isopropylbenzene	U		0.105	1.00	1	03/22/2025 18:30	WG2474420
2-Butanone (MEK)	U		1.19	10.0	1	03/22/2025 18:30	WG2474420
Methyl Acetate	U		1.29	20.0	1	03/22/2025 18:30	WG2474420
Methyl Cyclohexane	U		0.660	1.00	1	03/22/2025 18:30	WG2474420
Methylene Chloride	U		0.430	5.00	1	03/22/2025 18:30	WG2474420
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/22/2025 18:30	WG2474420
Methyl tert-butyl ether	U		0.101	1.00	1	03/22/2025 18:30	WG2474420
Naphthalene	U	C3	1.00	5.00	1	03/22/2025 18:30	WG2474420
tert-Butyl alcohol	U	C3	4.06	5.00	1	03/22/2025 18:30	WG2474420
Styrene	U		0.118	1.00	1	03/22/2025 18:30	WG2474420
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/22/2025 18:30	WG2474420
Tetrachloroethene	U		0.300	1.00	1	03/22/2025 18:30	WG2474420
Toluene	U		0.278	1.00	1	03/22/2025 18:30	WG2474420
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/22/2025 18:30	WG2474420
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/22/2025 18:30	WG2474420
1,1,1-Trichloroethane	U		0.149	1.00	1	03/22/2025 18:30	WG2474420
1,1,2-Trichloroethane	U		0.158	1.00	1	03/22/2025 18:30	WG2474420
Trichloroethene	U		0.190	1.00	1	03/22/2025 18:30	WG2474420
Trichlorofluoromethane	U		0.160	5.00	1	03/22/2025 18:30	WG2474420
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/22/2025 18:30	WG2474420
Vinyl chloride	U	C3	0.234	1.00	1	03/22/2025 18:30	WG2474420
Xylenes, Total	U		0.174	3.00	1	03/22/2025 18:30	WG2474420
(S) Toluene-d8	*108*			*80.0-120*		*03/22/2025 18:30*	WG2474420
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*03/22/2025 18:30*	WG2474420
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*03/22/2025 18:30*	WG2474420

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1	03/22/2025 18:30	WG2474420		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	2.82		0.200	0.525	10.5	03/19/2025 10:17	WG2471291
Acenaphthene	1.49		0.200	0.525	10.5	03/19/2025 10:17	WG2471291
Acenaphthylene	0.529		0.180	0.525	10.5	03/19/2025 10:17	WG2471291
Benzo(a)anthracene	6.40		0.213	0.525	10.5	03/19/2025 10:17	WG2471291
Benzo(a)pyrene	5.88		0.193	0.525	10.5	03/19/2025 10:17	WG2471291
Benzo(b)fluoranthene	6.86		0.176	0.525	10.5	03/19/2025 10:17	WG2471291
Benzo(g,h,i)perylene	3.23		0.193	0.525	10.5	03/19/2025 10:17	WG2471291
Benzo(k)fluoranthene	2.79		0.212	0.525	10.5	03/19/2025 10:17	WG2471291
Chrysene	6.75		0.188	0.525	10.5	03/19/2025 10:17	WG2471291
Dibenz(a,h)anthracene	0.756		0.168	0.525	10.5	03/19/2025 10:17	WG2471291
Fluoranthene	16.0		0.284	1.05	10.5	03/19/2025 10:17	WG2471291
Fluorene	0.753		0.177	0.525	10.5	03/19/2025 10:17	WG2471291

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Indeno(1,2,3-cd)pyrene	3.82		0.166	0.525	10.5	03/19/2025 10:17	WG2471291
Naphthalene	1.19	J	0.963	2.63	10.5	03/19/2025 10:17	WG2471291
Phenanthrene	13.0		0.189	0.525	10.5	03/19/2025 10:17	WG2471291
Pyrene	11.5		0.177	0.525	10.5	03/19/2025 10:17	WG2471291
1-Methylnaphthalene	U		0.721	2.63	10.5	03/19/2025 10:17	WG2471291
2-Methylnaphthalene	U		0.708	2.63	10.5	03/19/2025 10:17	WG2471291
2-Chloronaphthalene	U		0.716	2.63	10.5	03/19/2025 10:17	WG2471291
(S) Nitrobenzene-d5	*111*			*31.0-160*		*03/19/2025 10:17*	WG2471291
(S) 2-Fluorobiphenyl	*88.1*			*48.0-148*		*03/19/2025 10:17*	WG2471291
(S) p-Terphenyl-d14	*83.8*			*37.0-146*		*03/19/2025 10:17*	WG2471291

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0700	0.200	1	03/18/2025 22:30	WG2470787

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Aluminum,Dissolved	29.4	J	16.0	100	1	03/20/2025 20:56	WG2471877
Antimony,Dissolved	1.82	J	0.310	4.00	1	03/20/2025 20:56	WG2471877
Arsenic,Dissolved	17.3		0.120	2.00	1	03/20/2025 20:56	WG2471877
Barium,Dissolved	36.2		0.500	2.00	1	03/20/2025 20:56	WG2471877
Beryllium,Dissolved	U		0.200	2.00	1	03/20/2025 20:56	WG2471877
Cadmium,Dissolved	U		0.120	1.00	1	03/20/2025 20:56	WG2471877
Calcium,Dissolved	65000		92.5	1000	1	03/20/2025 20:56	WG2471877
Chromium,Dissolved	3.89		0.900	2.00	1	03/20/2025 20:56	WG2471877
Copper,Dissolved	12.9		0.700	5.00	1	03/20/2025 20:56	WG2471877
Cobalt,Dissolved	0.296	J	0.100	2.00	1	03/20/2025 20:56	WG2471877
Iron,Dissolved	35.9	J	22.6	100	1	03/20/2025 20:56	WG2471877
Lead,Dissolved	U		0.500	2.00	1	03/20/2025 20:56	WG2471877
Magnesium,Dissolved	9810		82.7	1000	1	03/20/2025 20:56	WG2471877
Manganese,Dissolved	3.51	J	0.700	5.00	1	03/20/2025 20:56	WG2471877
Nickel,Dissolved	1.56	J	0.500	2.00	1	03/20/2025 20:56	WG2471877
Potassium,Dissolved	22200		96.5	2000	1	03/20/2025 20:56	WG2471877
Selenium,Dissolved	3.02		0.250	2.00	1	03/20/2025 21:43	WG2471877
Silver,Dissolved	U		0.110	2.00	1	03/20/2025 20:56	WG2471877
Sodium,Dissolved	455000		142	2000	1	03/20/2025 20:56	WG2471877
Thallium,Dissolved	U		0.130	2.00	1	03/20/2025 20:56	WG2471877
Vanadium,Dissolved	268		0.520	5.00	1	03/20/2025 20:56	WG2471877
Zinc,Dissolved	U		4.00	25.0	1	03/20/2025 20:56	WG2471877

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	J4	11.3	50.0	1	03/22/2025 18:51	WG2474420
Benzene	U		0.0941	1.00	1	03/22/2025 18:51	WG2474420
Bromochloromethane	U		0.128	1.00	1	03/22/2025 18:51	WG2474420
Bromodichloromethane	U		0.136	1.00	1	03/22/2025 18:51	WG2474420
Bromoform	U		0.129	1.00	1	03/22/2025 18:51	WG2474420
Bromomethane	U	C3	0.605	5.00	1	03/22/2025 18:51	WG2474420
Carbon disulfide	U		0.0962	1.00	1	03/22/2025 18:51	WG2474420
Carbon tetrachloride	U		0.128	1.00	1	03/22/2025 18:51	WG2474420
Chlorobenzene	U		0.116	1.00	1	03/22/2025 18:51	WG2474420
Chlorodibromomethane	U		0.140	1.00	1	03/22/2025 18:51	WG2474420
Chloroethane	U	C3	0.192	5.00	1	03/22/2025 18:51	WG2474420
Chloroform	U		0.111	5.00	1	03/22/2025 18:51	WG2474420
Chloromethane	U		0.960	2.50	1	03/22/2025 18:51	WG2474420
Cyclohexane	U		0.188	1.00	1	03/22/2025 18:51	WG2474420
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/22/2025 18:51	WG2474420
1,2-Dibromoethane	U		0.126	1.00	1	03/22/2025 18:51	WG2474420
1,2-Dichlorobenzene	U		0.107	1.00	1	03/22/2025 18:51	WG2474420
1,3-Dichlorobenzene	U		0.110	1.00	1	03/22/2025 18:51	WG2474420
1,4-Dichlorobenzene	U		0.120	1.00	1	03/22/2025 18:51	WG2474420
Dichlorodifluoromethane	U		0.374	5.00	1	03/22/2025 18:51	WG2474420
1,1-Dichloroethane	U		0.100	1.00	1	03/22/2025 18:51	WG2474420
1,2-Dichloroethane	U		0.0819	1.00	1	03/22/2025 18:51	WG2474420
1,1-Dichloroethene	U		0.188	1.00	1	03/22/2025 18:51	WG2474420
cis-1,2-Dichloroethene	2.64		0.126	1.00	1	03/22/2025 18:51	WG2474420

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	1.19		0.149	1.00	1	03/22/2025 18:51	WG2474420
1,2-Dichloropropane	U		0.149	1.00	1	03/22/2025 18:51	WG2474420
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/22/2025 18:51	WG2474420
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/22/2025 18:51	WG2474420
Ethylbenzene	U		0.137	1.00	1	03/22/2025 18:51	WG2474420
2-Hexanone	U		0.787	10.0	1	03/22/2025 18:51	WG2474420
Isopropylbenzene	U		0.105	1.00	1	03/22/2025 18:51	WG2474420
2-Butanone (MEK)	U		1.19	10.0	1	03/22/2025 18:51	WG2474420
Methyl Acetate	U		1.29	20.0	1	03/22/2025 18:51	WG2474420
Methyl Cyclohexane	U		0.660	1.00	1	03/22/2025 18:51	WG2474420
Methylene Chloride	U		0.430	5.00	1	03/22/2025 18:51	WG2474420
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/22/2025 18:51	WG2474420
Methyl tert-butyl ether	U		0.101	1.00	1	03/22/2025 18:51	WG2474420
Naphthalene	U	C3	1.00	5.00	1	03/22/2025 18:51	WG2474420
tert-Butyl alcohol	U	C3	4.06	5.00	1	03/22/2025 18:51	WG2474420
Styrene	U		0.118	1.00	1	03/22/2025 18:51	WG2474420
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/22/2025 18:51	WG2474420
Tetrachloroethene	U		0.300	1.00	1	03/22/2025 18:51	WG2474420
Toluene	U		0.278	1.00	1	03/22/2025 18:51	WG2474420
1,2,3-Trichlorobenzene	U	C3	0.230	1.00	1	03/22/2025 18:51	WG2474420
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	03/22/2025 18:51	WG2474420
1,1,1-Trichloroethane	U		0.149	1.00	1	03/22/2025 18:51	WG2474420
1,1,2-Trichloroethane	U		0.158	1.00	1	03/22/2025 18:51	WG2474420
Trichloroethene	2.25		0.190	1.00	1	03/22/2025 18:51	WG2474420
Trichlorofluoromethane	U		0.160	5.00	1	03/22/2025 18:51	WG2474420
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/22/2025 18:51	WG2474420
Vinyl chloride	U	C3	0.234	1.00	1	03/22/2025 18:51	WG2474420
Xylenes, Total	U		0.174	3.00	1	03/22/2025 18:51	WG2474420
(S) Toluene-d8	*108*			*80.0-120*		*03/22/2025 18:51*	WG2474420
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*03/22/2025 18:51*	WG2474420
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*03/22/2025 18:51*	WG2474420

Volatile Organic Compounds (GC/MS) by Method 8260D - TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch	CAS #	RT
Total Tic	0.000		0.000	0.000	1	03/22/2025 18:51	WG2474420		

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	0.742		0.0190	0.0500	1	03/19/2025 03:06	WG2471291
Acenaphthene	0.623		0.0190	0.0500	1	03/19/2025 03:06	WG2471291
Acenaphthylene	0.154		0.0171	0.0500	1	03/19/2025 03:06	WG2471291
Benzo(a)anthracene	1.66		0.0203	0.0500	1	03/19/2025 03:06	WG2471291
Benzo(a)pyrene	1.49		0.0184	0.0500	1	03/19/2025 03:06	WG2471291
Benzo(b)fluoranthene	1.78		0.0168	0.0500	1	03/19/2025 03:06	WG2471291
Benzo(g,h,i)perylene	0.791		0.0184	0.0500	1	03/19/2025 03:06	WG2471291
Benzo(k)fluoranthene	0.595		0.0202	0.0500	1	03/19/2025 03:06	WG2471291
Chrysene	1.29		0.0179	0.0500	1	03/19/2025 03:06	WG2471291
Dibenz(a,h)anthracene	0.205		0.0160	0.0500	1	03/19/2025 03:06	WG2471291
Fluoranthene	3.91		0.0270	0.100	1	03/19/2025 03:06	WG2471291
Fluorene	0.244		0.0169	0.0500	1	03/19/2025 03:06	WG2471291

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Indeno(1,2,3-cd)pyrene	0.966		0.0158	0.0500	1	03/19/2025 03:06	WG2471291
Naphthalene	0.632		0.0917	0.250	1	03/19/2025 03:06	WG2471291
Phenanthrene	3.42		0.0180	0.0500	1	03/19/2025 03:06	WG2471291
Pyrene	2.85		0.0169	0.0500	1	03/19/2025 03:06	WG2471291
1-Methylnaphthalene	0.240	J	0.0687	0.250	1	03/19/2025 03:06	WG2471291
2-Methylnaphthalene	0.196	J	0.0674	0.250	1	03/19/2025 03:06	WG2471291
2-Chloronaphthalene	U		0.0682	0.250	1	03/19/2025 03:06	WG2471291
(S) Nitrobenzene-d5	*116*			*31.0-160*		*03/19/2025 03:06*	WG2471291
(S) 2-Fluorobiphenyl	*91.1*			*48.0-148*		*03/19/2025 03:06*	WG2471291
(S) p-Terphenyl-d14	*87.4*			*37.0-146*		*03/19/2025 03:06*	WG2471291

Method Blank (MB)

(MB) R4188038-1 03/18/25 14:59

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1836817-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1836817-01 03/18/25 14:59 • (DUP) R4188038-3 03/18/25 14:59

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	80.4	80.1	1	0.435		10

Laboratory Control Sample (LCS)

(LCS) R4188038-2 03/18/25 14:59

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4187962-1 03/18/25 21:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury,Dissolved	U		0.0700	0.200

Laboratory Control Sample (LCS)

(LCS) R4187962-2 03/18/25 21:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	3.00	2.59	86.4	80.0-120	

L1835526-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1835526-04 03/18/25 21:40 • (MS) R4187962-4 03/18/25 21:45 • (MSD) R4187962-5 03/18/25 21:53

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	2.52	2.53	84.1	84.5	1	75.0-125			0.423	20

Method Blank (MB)

(MB) R4189486-1 03/21/25 13:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0206	0.0400

Laboratory Control Sample (LCS)

(LCS) R4189486-2 03/21/25 13:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.499	99.8	80.0-120	

L1836831-44 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1836831-44 03/21/25 13:33 • (MS) R4189486-4 03/21/25 13:39 • (MSD) R4189486-5 03/21/25 13:41

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	0.500	0.0427	0.475	0.532	86.5	97.8	1	75.0-125			11.3	20

Method Blank (MB)

(MB) R4188520-1 03/19/25 18:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0206	0.0400

Laboratory Control Sample (LCS)

(LCS) R4188520-2 03/19/25 18:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.454	90.7	80.0-120	

L1837025-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1837025-01 03/19/25 18:46 • (MS) R4188520-4 03/19/25 18:51 • (MSD) R4188520-5 03/19/25 18:54

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.532	U	0.524	0.550	98.5	103	1	75.0-125			4.79	20

Method Blank (MB)

(MB) R4189558-1 03/21/25 15:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0206	0.0400

Laboratory Control Sample (LCS)

(LCS) R4189558-2 03/21/25 15:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.515	103	80.0-120	

L1837434-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1837434-02 03/21/25 15:51 • (MS) R4189558-4 03/21/25 16:01 • (MSD) R4189558-5 03/21/25 16:04

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	0.500	U	0.494	0.542	98.7	108	1	75.0-125			9.38	20

Method Blank (MB)

(MB) R4188552-1 03/19/25 17:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aluminum	16.5	J	6.08	20.0
Antimony	U		0.691	2.00
Arsenic	U		0.837	2.00
Barium	0.0930	J	0.0850	0.500
Beryllium	U		0.0477	0.200
Cadmium	U		0.0653	0.500
Calcium	U		19.0	100
Chromium	U		0.214	1.00
Cobalt	0.182	J	0.177	1.00
Copper	U		0.357	2.00
Iron	27.6		2.24	10.0
Lead	U		0.326	0.500
Magnesium	U		19.9	100
Manganese	U		0.173	1.00
Nickel	0.261	J	0.200	2.00
Potassium	32.6	J	20.9	100
Selenium	U		1.07	2.00
Silver	U		0.127	1.00
Sodium	69.7	J	41.2	100
Thallium	U		0.518	2.00
Vanadium	U		0.383	2.00
Zinc	U		0.974	5.00

Laboratory Control Sample (LCS)

(LCS) R4188552-2 03/19/25 17:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum	1000	1060	106	80.0-120	
Antimony	100	104	104	80.0-120	
Arsenic	100	100	100	80.0-120	
Barium	100	108	108	80.0-120	
Beryllium	100	105	105	80.0-120	
Cadmium	100	104	104	80.0-120	
Calcium	1000	1050	105	80.0-120	
Chromium	100	106	106	80.0-120	
Cobalt	100	98.9	98.9	80.0-120	
Copper	100	108	108	80.0-120	
Iron	1000	1050	105	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R4188552-2 03/19/25 17:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	100	100	100	80.0-120	
Magnesium	1000	1070	107	80.0-120	
Manganese	100	106	106	80.0-120	
Nickel	100	98.0	98.0	80.0-120	
Potassium	1000	1090	109	80.0-120	
Selenium	100	98.2	98.2	80.0-120	
Silver	20.0	19.9	99.6	80.0-120	
Sodium	1000	1090	109	80.0-120	
Thallium	100	107	107	80.0-120	
Vanadium	100	105	105	80.0-120	
Zinc	100	103	103	80.0-120	

L1837025-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1837025-01 03/19/25 17:49 • (MS) R4188552-5 03/19/25 17:54 • (MSD) R4188552-6 03/19/25 17:56

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	1060	8200	7710	8780	0.000	54.3	1	75.0-125	V	V	13.0	20
Antimony	106	U	92.0	86.3	86.5	81.1	1	75.0-125			6.39	20
Arsenic	106	2.94	113	106	104	96.9	1	75.0-125			6.70	20
Barium	106	83.5	188	177	98.4	88.3	1	75.0-125			5.87	20
Beryllium	106	0.359	116	109	109	102	1	75.0-125			6.09	20
Cadmium	106	0.186	111	106	105	99.3	1	75.0-125			5.11	20
Calcium	1060	28400	29100	26400	69.9	0.000	1	75.0-125	V	V	9.78	20
Chromium	106	7.34	120	115	106	101	1	75.0-125			4.37	20
Cobalt	106	5.33	119	114	107	102	1	75.0-125			4.56	20
Copper	106	12.7	126	120	106	101	1	75.0-125			5.08	20
Iron	1060	10500	8780	10000	0.000	0.000	1	75.0-125	V	V	13.2	20
Lead	106	7.90	119	114	105	99.7	1	75.0-125			4.55	20
Magnesium	1060	5060	5390	5800	31.4	69.5	1	75.0-125	V	V	7.26	20
Manganese	106	280	374	404	88.5	116	1	75.0-125			7.52	20
Nickel	106	7.35	119	113	105	99.2	1	75.0-125			5.02	20
Potassium	1060	2970	3880	4110	85.9	107	1	75.0-125			5.64	20
Selenium	106	U	106	99.3	99.5	93.3	1	75.0-125			6.42	20
Silver	21.3	U	22.5	21.0	106	98.7	1	75.0-125			6.99	20
Sodium	1060	651	1580	1510	87.7	80.4	1	75.0-125			5.07	20
Thallium	106	U	115	108	108	102	1	75.0-125			6.00	20
Vanadium	106	24.0	132	127	101	97.1	1	75.0-125			3.29	20
Zinc	106	34.8	140	139	99.2	98.0	1	75.0-125			0.866	20

Method Blank (MB)

(MB) R4189098-1 03/20/25 19:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Aluminum,Dissolved	U		16.0	100
Antimony,Dissolved	U		0.310	4.00
Arsenic,Dissolved	U		0.120	2.00
Barium,Dissolved	U		0.500	2.00
Beryllium,Dissolved	U		0.200	2.00
Cadmium,Dissolved	U		0.120	1.00
Calcium,Dissolved	U		92.5	1000
Chromium,Dissolved	U		0.900	2.00
Copper,Dissolved	U		0.700	5.00
Cobalt,Dissolved	U		0.100	2.00
Iron,Dissolved	U		22.6	100
Lead,Dissolved	U		0.500	2.00
Magnesium,Dissolved	U		82.7	1000
Manganese,Dissolved	U		0.700	5.00
Nickel,Dissolved	U		0.500	2.00
Potassium,Dissolved	U		96.5	2000
Selenium,Dissolved	U		0.250	2.00
Silver,Dissolved	U		0.110	2.00
Sodium,Dissolved	U		142	2000
Thallium,Dissolved	U		0.130	2.00
Vanadium,Dissolved	U		0.520	5.00
Zinc,Dissolved	U		4.00	25.0

Laboratory Control Sample (LCS)

(LCS) R4189098-2 03/20/25 19:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aluminum,Dissolved	1000	1040	104	80.0-120	
Antimony,Dissolved	50.0	54.6	109	80.0-120	
Arsenic,Dissolved	50.0	51.5	103	80.0-120	
Barium,Dissolved	50.0	51.8	104	80.0-120	
Beryllium,Dissolved	50.0	48.7	97.5	80.0-120	
Cadmium,Dissolved	50.0	52.7	105	80.0-120	
Calcium,Dissolved	5000	5260	105	80.0-120	
Chromium,Dissolved	50.0	50.9	102	80.0-120	
Copper,Dissolved	50.0	51.0	102	80.0-120	
Cobalt,Dissolved	50.0	52.1	104	80.0-120	
Iron,Dissolved	1000	1050	105	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R4189098-2 03/20/25 19:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead,Dissolved	50.0	51.7	103	80.0-120	
Magnesium,Dissolved	5000	5070	101	80.0-120	
Manganese,Dissolved	50.0	51.1	102	80.0-120	
Nickel,Dissolved	50.0	52.5	105	80.0-120	
Potassium,Dissolved	5000	5090	102	80.0-120	
Selenium,Dissolved	50.0	49.8	99.6	80.0-120	
Silver,Dissolved	50.0	53.1	106	80.0-120	
Sodium,Dissolved	5000	5070	101	80.0-120	
Thallium,Dissolved	50.0	53.4	107	80.0-120	
Vanadium,Dissolved	50.0	50.8	102	80.0-120	
Zinc,Dissolved	50.0	53.9	108	80.0-120	

L1836759-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1836759-04 03/20/25 19:27 • (MS) R4189098-4 03/20/25 19:34 • (MSD) R4189098-5 03/20/25 19:37

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 %
Aluminum,Dissolved	1000	U	1010	1020	101	102	1	75.0-125			0.922	20
Antimony,Dissolved	50.0	U	52.6	55.4	105	111	1	75.0-125			5.10	20
Arsenic,Dissolved	50.0	0.204	51.0	51.8	102	103	1	75.0-125			1.46	20
Barium,Dissolved	50.0	16.9	68.0	67.2	102	101	1	75.0-125			1.22	20
Beryllium,Dissolved	50.0	U	49.9	49.2	99.8	98.4	1	75.0-125			1.36	20
Cadmium,Dissolved	50.0	U	53.3	53.7	107	107	1	75.0-125			0.871	20
Calcium,Dissolved	5000	30800	35500	35500	95.2	95.1	1	75.0-125			0.0192	20
Chromium,Dissolved	50.0	U	50.3	51.1	101	102	1	75.0-125			1.62	20
Copper,Dissolved	50.0	U	50.2	51.0	100	102	1	75.0-125			1.55	20
Cobalt,Dissolved	50.0	0.528	51.3	51.7	102	102	1	75.0-125			0.792	20
Iron,Dissolved	1000	U	1020	1050	102	105	1	75.0-125			2.70	20
Lead,Dissolved	50.0	U	49.9	49.1	99.8	98.1	1	75.0-125			1.67	20
Magnesium,Dissolved	5000	11500	16300	16600	95.8	101	1	75.0-125			1.48	20
Manganese,Dissolved	50.0	1320	1350	1370	57.1	86.6	1	75.0-125	V		1.08	20
Nickel,Dissolved	50.0	4.25	54.7	55.7	101	103	1	75.0-125			1.76	20
Potassium,Dissolved	5000	1490	6530	6620	101	103	1	75.0-125			1.41	20
Selenium,Dissolved	50.0	U	49.8	48.2	99.6	96.4	1	75.0-125			3.26	20
Silver,Dissolved	50.0	U	52.5	53.7	105	107	1	75.0-125			2.17	20
Sodium,Dissolved	5000	13400	19000	18800	112	109	1	75.0-125			0.640	20
Thallium,Dissolved	50.0	U	52.8	53.1	106	106	1	75.0-125			0.671	20
Vanadium,Dissolved	50.0	1.17	51.1	51.9	99.8	102	1	75.0-125			1.67	20
Zinc,Dissolved	50.0	U	52.9	53.3	106	107	1	75.0-125			0.866	20

Method Blank (MB)

(MB) R4189033-4 03/19/25 09:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0207	0.0500
Benzene	U		0.000375	0.00100
Bromochloromethane	U		0.000335	0.00100
Bromodichloromethane	U		0.000725	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00117	0.00500
Carbon disulfide	U		0.000700	0.00100
Carbon tetrachloride	U		0.000248	0.00100
Chlorobenzene	U		0.000192	0.00100
Chlorodibromomethane	U		0.000224	0.00100
Chloroethane	U		0.00100	0.00500
Chloroform	U		0.00103	0.00500
Chloromethane	U		0.000650	0.00250
Cyclohexane	U		0.000268	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00190	0.00500
1,2-Dibromoethane	U		0.000250	0.00100
Dichlorodifluoromethane	U		0.000287	0.00500
1,1-Dichloroethane	U		0.000268	0.00100
1,2-Dichloroethane	U		0.000450	0.00100
1,2-Dichlorobenzene	U		0.000425	0.00100
1,3-Dichlorobenzene	U		0.000600	0.00100
1,4-Dichlorobenzene	U		0.000830	0.00100
1,1-Dichloroethene	U		0.000355	0.00100
cis-1,2-Dichloroethene	U		0.000475	0.00100
trans-1,2-Dichloroethene	U		0.000500	0.00100
1,2-Dichloropropane	U		0.000164	0.00100
cis-1,3-Dichloropropene	U		0.000425	0.00100
trans-1,3-Dichloropropene	U		0.000675	0.00100
Ethylbenzene	U		0.000300	0.00100
2-Hexanone	U		0.00179	0.0100
Isopropylbenzene	U		0.000425	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methyl Acetate	U		0.00300	0.0200
Methyl Cyclohexane	U		0.000775	0.00100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000950	0.0100
Methyl tert-butyl ether	U		0.000350	0.00100
Styrene	U		0.000223	0.00100
1,1,2,2-Tetrachloroethane	U		0.000231	0.00100
Tetrachloroethene	U		0.000325	0.00100

Method Blank (MB)

(MB) R4189033-4 03/19/25 09:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	U		0.00123	0.00500
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000370	0.00100
1,1,2-Trichloroethane	U		0.000425	0.00100
Trichloroethene	U		0.000200	0.00100
Trichlorofluoromethane	U		0.000356	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000426	0.00100
Vinyl chloride	U		0.000226	0.00100
Xylenes, Total	U		0.000500	0.00300
tert-Butyl alcohol	U		0.00250	0.00500
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*95.8*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*98.5*			*70.0-130*

Method Blank (MB) - TENTATIVELY IDENTIFIED COMPOUNDS

(MB) R4189033-4 03/19/25 09:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg	CAS #

Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

(LCS) R4189033-1 03/19/25 07:34 • (LCSD) R4189033-2 03/19/25 07:56

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	0.131	0.128	105	102	40.0-160			2.32	30
Benzene	0.0250	0.0288	0.0283	115	113	70.0-130			1.75	30
Bromochloromethane	0.0250	0.0304	0.0296	122	118	70.0-130			2.67	30
Bromodichloromethane	0.0250	0.0288	0.0282	115	113	70.0-130			2.11	30
Bromoform	0.0250	0.0287	0.0271	115	108	70.0-130			5.73	30
Bromomethane	0.0250	0.0177	0.0188	70.8	75.2	40.0-160			6.03	30
Carbon disulfide	0.0250	0.0236	0.0231	94.4	92.4	40.0-160			2.14	30
Carbon tetrachloride	0.0250	0.0284	0.0282	114	113	70.0-130			0.707	30
Chlorobenzene	0.0250	0.0294	0.0279	118	112	70.0-130			5.24	30
Chlorodibromomethane	0.0250	0.0298	0.0282	119	113	70.0-130			5.52	30

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

(LCS) R4189033-1 03/19/25 07:34 • (LCSD) R4189033-2 03/19/25 07:56

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 %
Chloroethane	0.0250	0.0261	0.0267	104	107	40.0-160			2.27	30
Chloroform	0.0250	0.0275	0.0277	110	111	70.0-130			0.725	30
Chloromethane	0.0250	0.0184	0.0189	73.6	75.6	40.0-160			2.68	30
Cyclohexane	0.0250	0.0271	0.0270	108	108	70.0-130			0.370	30
1,2-Dibromo-3-Chloropropane	0.0250	0.0254	0.0273	102	109	40.0-160			7.21	30
1,2-Dibromoethane	0.0250	0.0285	0.0269	114	108	70.0-130			5.78	30
Dichlorodifluoromethane	0.0250	0.0225	0.0227	90.0	90.8	40.0-160			0.885	30
1,1-Dichloroethane	0.0250	0.0296	0.0298	118	119	70.0-130			0.673	30
1,2-Dichloroethane	0.0250	0.0283	0.0277	113	111	70.0-130			2.14	30
1,2-Dichlorobenzene	0.0250	0.0289	0.0295	116	118	70.0-130			2.05	30
1,3-Dichlorobenzene	0.0250	0.0285	0.0294	114	118	70.0-130			3.11	30
1,4-Dichlorobenzene	0.0250	0.0286	0.0291	114	116	70.0-130			1.73	30
1,1-Dichloroethene	0.0250	0.0262	0.0255	105	102	70.0-130			2.71	30
cis-1,2-Dichloroethene	0.0250	0.0288	0.0293	115	117	70.0-130			1.72	30
trans-1,2-Dichloroethene	0.0250	0.0273	0.0270	109	108	70.0-130			1.10	30
1,2-Dichloropropane	0.0250	0.0298	0.0285	119	114	70.0-130			4.46	30
cis-1,3-Dichloropropene	0.0250	0.0300	0.0295	120	118	70.0-130			1.68	30
trans-1,3-Dichloropropene	0.0250	0.0298	0.0279	119	112	70.0-130			6.59	30
Ethylbenzene	0.0250	0.0293	0.0286	117	114	70.0-130			2.42	30
2-Hexanone	0.125	0.137	0.131	110	105	40.0-160			4.48	30
Isopropylbenzene	0.0250	0.0269	0.0260	108	104	70.0-130			3.40	30
2-Butanone (MEK)	0.125	0.131	0.129	105	103	40.0-160			1.54	30
Methyl Acetate	0.125	0.126	0.124	101	99.2	70.0-130			1.60	30
Methyl Cyclohexane	0.0250	0.0278	0.0272	111	109	40.0-160			2.18	30
Methylene Chloride	0.0250	0.0281	0.0279	112	112	70.0-130			0.714	30
4-Methyl-2-pentanone (MIBK)	0.125	0.136	0.128	109	102	40.0-160			6.06	30
Methyl tert-butyl ether	0.0250	0.0275	0.0268	110	107	70.0-130			2.58	30
Styrene	0.0250	0.0299	0.0288	120	115	70.0-130			3.75	30
1,1,2,2-Tetrachloroethane	0.0250	0.0258	0.0269	103	108	70.0-130			4.17	30
Tetrachloroethene	0.0250	0.0291	0.0280	116	112	70.0-130			3.85	30
Toluene	0.0250	0.0283	0.0270	113	108	70.0-130			4.70	30
1,2,3-Trichlorobenzene	0.0250	0.0287	0.0296	115	118	70.0-130			3.09	30
1,2,4-Trichlorobenzene	0.0250	0.0303	0.0311	121	124	70.0-130			2.61	30
1,1,1-Trichloroethane	0.0250	0.0290	0.0287	116	115	70.0-130			1.04	30
1,1,2-Trichloroethane	0.0250	0.0285	0.0278	114	111	70.0-130			2.49	30
Trichloroethene	0.0250	0.0296	0.0292	118	117	70.0-130			1.36	30
Trichlorofluoromethane	0.0250	0.0258	0.0255	103	102	40.0-160			1.17	30
1,1,2-Trichlorotrifluoroethane	0.0250	0.0268	0.0267	107	107	70.0-130			0.374	30
Vinyl chloride	0.0250	0.0221	0.0219	88.4	87.6	70.0-130			0.909	30
Xylenes, Total	0.0750	0.0898	0.0850	120	113	70.0-130			5.49	30

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

(LCS) R4189033-1 03/19/25 07:34 • (LCSD) R4189033-2 03/19/25 07:56

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 %
tert-Butyl alcohol	0.125	0.132	0.129	106	103	50.0-150			2.30	20
(S) Toluene-d8				*99.7*	*96.9*	*75.0-131*				
(S) 4-Bromofluorobenzene				*97.6*	*93.8*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*105*	*70.0-130*				

Method Blank (MB)

(MB) R4189922-4 03/22/25 11:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Benzene	U		0.0941	1.00
Bromochloromethane	U		0.128	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	0.479	J	0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
Ethylbenzene	U		0.137	1.00
2-Hexanone	U		0.787	10.0
Isopropylbenzene	U		0.105	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Acetate	U		1.29	20.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
tert-Butyl alcohol	U		4.06	5.00
Styrene	U		0.118	1.00

Method Blank (MB)

(MB) R4189922-4 03/22/25 11:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*

Method Blank (MB) - TENTATIVELY IDENTIFIED COMPOUNDS

(MB) R4189922-4 03/22/25 11:50

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l	CAS #

Number of TICs found: 0

Tentatively Identified compounds (TIC) refers to substances not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search routine of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation is accomplished by relative peak area of the TIC compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is 10% or more of that of the nearest internal standard.

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

(LCS) R4189922-1 03/22/25 10:08 • (LCSD) R4189922-2 03/22/25 10:28

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	25.0	41.4	46.2	166	185	40.0-160	J J4	J J4	11.0	20
Benzene	5.00	4.91	4.94	98.2	98.8	70.0-130			0.609	20
Bromochloromethane	5.00	5.11	5.34	102	107	70.0-130			4.40	20
Bromodichloromethane	5.00	4.91	4.80	98.2	96.0	70.0-130			2.27	20
Bromoform	5.00	4.39	4.75	87.8	95.0	70.0-130			7.88	20
Bromomethane	5.00	2.19	2.36	43.8	47.2	40.0-160	J	J	7.47	20
Carbon disulfide	5.00	4.87	5.03	97.4	101	40.0-160			3.23	20
Carbon tetrachloride	5.00	4.69	5.34	93.8	107	70.0-130			13.0	20
Chlorobenzene	5.00	4.59	4.88	91.8	97.6	70.0-130			6.12	20

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

(LCS) R4189922-1 03/22/25 10:08 • (LCSD) R4189922-2 03/22/25 10:28

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 %
Chlorodibromomethane	5.00	4.74	4.95	94.8	99.0	70.0-130			4.33	20
Chloroethane	5.00	2.81	3.00	56.2	60.0	40.0-160	J	J	6.54	20
Chloroform	5.00	4.75	4.85	95.0	97.0	70.0-130	J	J	2.08	20
Chloromethane	5.00	4.95	5.37	99.0	107	40.0-160			8.14	20
Cyclohexane	5.00	4.45	4.67	89.0	93.4	70.0-130			4.82	30
1,2-Dibromo-3-Chloropropane	5.00	4.14	4.08	82.8	81.6	40.0-160	J	J	1.46	20
1,2-Dibromoethane	5.00	4.55	4.60	91.0	92.0	70.0-130			1.09	20
1,2-Dichlorobenzene	5.00	4.77	4.80	95.4	96.0	70.0-130			0.627	20
1,3-Dichlorobenzene	5.00	4.68	4.86	93.6	97.2	70.0-130			3.77	20
1,4-Dichlorobenzene	5.00	4.65	4.44	93.0	88.8	70.0-130			4.62	20
Dichlorodifluoromethane	5.00	4.31	4.62	86.2	92.4	40.0-160	J	J	6.94	20
1,1-Dichloroethane	5.00	5.03	5.19	101	104	70.0-130			3.13	20
1,2-Dichloroethane	5.00	4.98	4.86	99.6	97.2	70.0-130			2.44	20
1,1-Dichloroethene	5.00	4.44	5.06	88.8	101	70.0-130			13.1	20
cis-1,2-Dichloroethene	5.00	4.73	5.38	94.6	108	70.0-130			12.9	20
trans-1,2-Dichloroethene	5.00	4.64	5.06	92.8	101	70.0-130			8.66	20
1,2-Dichloropropane	5.00	4.73	5.06	94.6	101	70.0-130			6.74	20
cis-1,3-Dichloropropene	5.00	4.78	4.65	95.6	93.0	70.0-130			2.76	20
trans-1,3-Dichloropropene	5.00	4.79	4.80	95.8	96.0	70.0-130			0.209	20
Ethylbenzene	5.00	4.52	4.92	90.4	98.4	70.0-130			8.47	20
2-Hexanone	25.0	26.7	31.4	107	126	40.0-160			16.2	20
Isopropylbenzene	5.00	4.70	5.03	94.0	101	70.0-130			6.78	20
2-Butanone (MEK)	25.0	31.6	36.6	126	146	40.0-160			14.7	20
Methyl Acetate	25.0	26.5	27.7	106	111	70.0-130			4.43	30
Methyl Cyclohexane	5.00	4.15	4.75	83.0	95.0	40.0-160			13.5	30
Methylene Chloride	5.00	4.96	4.77	99.2	95.4	70.0-130	J	J	3.91	20
4-Methyl-2-pentanone (MIBK)	25.0	25.2	26.7	101	107	40.0-160			5.78	20
Methyl tert-butyl ether	5.00	4.83	4.56	96.6	91.2	70.0-130			5.75	20
Naphthalene	5.00	3.04	3.25	60.8	65.0	40.0-160	J	J	6.68	20
tert-Butyl alcohol	25.0	17.6	20.9	70.4	83.6	50.0-150			17.1	20
Styrene	5.00	4.36	4.20	87.2	84.0	70.0-130			3.74	20
1,1,2,2-Tetrachloroethane	5.00	4.45	4.47	89.0	89.4	70.0-130			0.448	20
Tetrachloroethene	5.00	5.03	5.30	101	106	70.0-130			5.23	20
Toluene	5.00	4.90	5.05	98.0	101	70.0-130			3.02	20
1,2,3-Trichlorobenzene	5.00	3.67	4.19	73.4	83.8	70.0-130			13.2	20
1,2,4-Trichlorobenzene	5.00	3.72	3.85	74.4	77.0	70.0-130			3.43	20
1,1,1-Trichloroethane	5.00	5.13	5.04	103	101	70.0-130			1.77	20
1,1,2-Trichloroethane	5.00	5.10	4.84	102	96.8	70.0-130			5.23	20
Trichloroethene	5.00	4.80	4.81	96.0	96.2	70.0-130			0.208	20
Trichlorofluoromethane	5.00	4.23	4.46	84.6	89.2	40.0-160	J	J	5.29	20

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

(LCS) R4189922-1 03/22/25 10:08 • (LCSD) R4189922-2 03/22/25 10:28

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 %
1,1,2-Trichlorotrifluoroethane	5.00	4.34	4.60	86.8	92.0	70.0-130			5.82	20
Vinyl chloride	5.00	3.58	3.61	71.6	72.2	70.0-130			0.834	20
Xylenes, Total	15.0	14.5	14.8	96.7	98.7	70.0-130			2.05	20
(S) Toluene-d8				*99.7*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*107*	*110*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*102*	*105*	*70.0-130*				

L1837226-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1837226-15 03/22/25 20:13 • (MS) R4189922-5 03/22/25 21:14 • (MSD) R4189922-6 03/22/25 21:35

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 %
Acetone	25.0	U	22.1	23.2	88.4	92.8	1	40.0-160	J	J	4.86	20
Benzene	5.00	U	4.15	4.53	83.0	90.6	1	70.0-130			8.76	20
Bromochloromethane	5.00	U	4.65	4.87	93.0	97.4	1	70.0-130			4.62	20
Bromodichloromethane	5.00	U	4.31	4.79	86.2	95.8	1	70.0-130			10.5	20
Bromoform	5.00	U	4.09	4.62	81.8	92.4	1	70.0-130			12.2	20
Bromomethane	5.00	U	1.70	2.01	34.0	40.2	1	40.0-160	J J6	J	16.7	20
Carbon disulfide	5.00	U	3.43	4.15	68.6	83.0	1	40.0-160			19.0	20
Carbon tetrachloride	5.00	U	4.31	4.75	86.2	95.0	1	70.0-130			9.71	20
Chlorobenzene	5.00	U	4.09	4.68	81.8	93.6	1	70.0-130			13.5	20
Chlorodibromomethane	5.00	U	4.26	4.98	85.2	99.6	1	70.0-130			15.6	20
Chloroethane	5.00	U	2.59	2.99	51.8	59.8	1	40.0-160	J	J	14.3	20
Chloroform	5.00	U	4.30	4.77	86.0	95.4	1	70.0-130	J	J	10.4	20
Chloromethane	5.00	U	4.14	4.49	82.8	89.8	1	40.0-160			8.11	20
Cyclohexane	5.00	U	3.96	4.79	79.2	95.8	1	70.0-130			19.0	30
1,2-Dibromo-3-Chloropropane	5.00	U	3.14	3.90	62.8	78.0	1	40.0-160	J	J J3	21.6	20
1,2-Dibromoethane	5.00	U	4.05	4.55	81.0	91.0	1	70.0-130			11.6	20
1,2-Dichlorobenzene	5.00	U	4.18	4.79	83.6	95.8	1	70.0-130			13.6	20
1,3-Dichlorobenzene	5.00	U	4.00	4.63	80.0	92.6	1	70.0-130			14.6	20
1,4-Dichlorobenzene	5.00	U	3.84	4.24	76.8	84.8	1	70.0-130			9.90	20
Dichlorodifluoromethane	5.00	U	3.65	4.72	73.0	94.4	1	40.0-160	J	J J3	25.6	20
1,1-Dichloroethane	5.00	U	4.67	4.91	93.4	98.2	1	70.0-130			5.01	20
1,2-Dichloroethane	5.00	U	4.50	4.62	90.0	92.4	1	70.0-130			2.63	20
1,1-Dichloroethene	5.00	U	3.79	4.82	75.8	96.4	1	70.0-130		J3	23.9	20
cis-1,2-Dichloroethene	5.00	U	4.19	4.76	83.8	95.2	1	70.0-130			12.7	20
trans-1,2-Dichloroethene	5.00	U	4.19	4.61	83.8	92.2	1	70.0-130			9.55	20
1,2-Dichloropropane	5.00	U	4.18	4.65	83.6	93.0	1	70.0-130			10.6	20
cis-1,3-Dichloropropene	5.00	U	3.56	3.86	71.2	77.2	1	70.0-130			8.09	20

L1837226-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1837226-15 03/22/25 20:13 • (MS) R4189922-5 03/22/25 21:14 • (MSD) R4189922-6 03/22/25 21:35

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 %
trans-1,3-Dichloropropene	5.00	U	3.76	4.33	75.2	86.6	1	70.0-130			14.1	20
Ethylbenzene	5.00	U	4.23	4.78	84.6	95.6	1	70.0-130			12.2	20
2-Hexanone	25.0	U	21.5	22.2	86.0	88.8	1	40.0-160			3.20	20
Isopropylbenzene	5.00	0.196	4.28	4.98	81.7	95.7	1	70.0-130			15.1	20
2-Butanone (MEK)	25.0	U	21.8	22.6	87.2	90.4	1	40.0-160			3.60	20
Methyl Acetate	25.0	U	25.3	26.8	101	107	1	70.0-130			5.76	30
Methyl Cyclohexane	5.00	U	3.59	4.47	71.8	89.4	1	40.0-160			21.8	30
Methylene Chloride	5.00	U	4.02	4.48	80.4	89.6	1	70.0-130	J	J	10.8	20
4-Methyl-2-pentanone (MIBK)	25.0	U	24.0	25.3	96.0	101	1	40.0-160			5.27	20
Methyl tert-butyl ether	5.00	U	4.16	4.40	83.2	88.0	1	70.0-130			5.61	20
Naphthalene	5.00	U	3.08	3.21	61.6	64.2	1	40.0-160	J	J	4.13	20
tert-Butyl alcohol	25.0	U	21.3	27.3	85.2	109	1	50.0-150		J3	24.7	20
Styrene	5.00	U	3.85	4.09	77.0	81.8	1	70.0-130			6.05	20
1,1,2,2-Tetrachloroethane	5.00	U	4.05	4.50	81.0	90.0	1	70.0-130			10.5	20
Tetrachloroethene	5.00	U	4.30	4.96	86.0	99.2	1	70.0-130			14.3	20
Toluene	5.00	U	4.25	4.76	85.0	95.2	1	70.0-130			11.3	20
1,2,3-Trichlorobenzene	5.00	U	3.26	3.74	65.2	74.8	1	70.0-130	J6		13.7	20
1,2,4-Trichlorobenzene	5.00	U	3.10	3.69	62.0	73.8	1	70.0-130	J6		17.4	20
1,1,1-Trichloroethane	5.00	U	4.45	5.05	89.0	101	1	70.0-130			12.6	20
1,1,2-Trichloroethane	5.00	U	4.41	4.94	88.2	98.8	1	70.0-130			11.3	20
Trichloroethene	5.00	U	4.19	4.70	83.8	94.0	1	70.0-130			11.5	20
Trichlorofluoromethane	5.00	U	3.71	4.60	74.2	92.0	1	40.0-160	J	J J3	21.4	20
1,1,2-Trichlorotrifluoroethane	5.00	U	3.73	4.76	74.6	95.2	1	70.0-130		J3	24.3	20
Vinyl chloride	5.00	U	2.94	3.34	58.8	66.8	1	70.0-130	J6	J6	12.7	20
Xylenes, Total	15.0	U	12.9	14.3	86.0	95.3	1	70.0-130			10.3	20
(S) Toluene-d8					*103*	*100*		*80.0-120*				
(S) 4-Bromofluorobenzene					*108*	*106*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*105*	*104*		*70.0-130*				

Method Blank (MB)

(MB) R4188207-3 03/19/25 00:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0171	0.0500
Benzo(a)anthracene	U		0.0203	0.0500
Benzo(a)pyrene	U		0.0184	0.0500
Benzo(b)fluoranthene	U		0.0168	0.0500
Benzo(g,h,i)perylene	U		0.0184	0.0500
Benzo(k)fluoranthene	U		0.0202	0.0500
Chrysene	U		0.0179	0.0500
Dibenz(a,h)anthracene	U		0.0160	0.0500
Fluoranthene	U		0.0270	0.100
Fluorene	U		0.0169	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500
Naphthalene	U		0.0917	0.250
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0169	0.0500
1-Methylnaphthalene	U		0.0687	0.250
2-Methylnaphthalene	U		0.0674	0.250
2-Chloronaphthalene	U		0.0682	0.250
(S) Nitrobenzene-d5	*110*			*31.0-160*
(S) 2-Fluorobiphenyl	*83.5*			*48.0-148*
(S) p-Terphenyl-d14	*85.0*			*37.0-146*

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

(LCS) R4188207-1 03/19/25 00:14 • (LCSD) R4188207-2 03/19/25 00:31

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	1.91	1.91	95.5	95.5	67.0-150			0.000	20
Acenaphthene	2.00	1.67	1.67	83.5	83.5	65.0-138			0.000	20
Acenaphthylene	2.00	1.77	1.77	88.5	88.5	66.0-140			0.000	20
Benzo(a)anthracene	2.00	1.87	1.85	93.5	92.5	61.0-140			1.08	20
Benzo(a)pyrene	2.00	1.82	1.85	91.0	92.5	60.0-143			1.63	20
Benzo(b)fluoranthene	2.00	1.65	1.70	82.5	85.0	58.0-141			2.99	20
Benzo(g,h,i)perylene	2.00	1.39	1.47	69.5	73.5	52.0-153			5.59	20
Benzo(k)fluoranthene	2.00	1.55	1.59	77.5	79.5	58.0-148			2.55	20
Chrysene	2.00	1.85	1.87	92.5	93.5	64.0-144			1.08	20
Dibenz(a,h)anthracene	2.00	1.45	1.53	72.5	76.5	52.0-155			5.37	20
Fluoranthene	2.00	2.03	2.00	102	100	69.0-153			1.49	20

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

(LCS) R4188207-1 03/19/25 00:14 • (LCSD) R4188207-2 03/19/25 00:31

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 %
Fluorene	2.00	1.93	1.94	96.5	97.0	64.0-136			0.517	20
Indeno(1,2,3-cd)pyrene	2.00	1.60	1.65	80.0	82.5	54.0-153			3.08	20
Naphthalene	2.00	1.80	1.78	90.0	89.0	61.0-137			1.12	20
Phenanthrene	2.00	1.83	1.81	91.5	90.5	62.0-137			1.10	20
Pyrene	2.00	1.70	1.68	85.0	84.0	60.0-142			1.18	20
1-Methylnaphthalene	2.00	1.85	1.84	92.5	92.0	66.0-142			0.542	20
2-Methylnaphthalene	2.00	1.96	1.94	98.0	97.0	62.0-136			1.03	20
2-Chloronaphthalene	2.00	1.75	1.74	87.5	87.0	64.0-140			0.573	20
(S) Nitrobenzene-d5				*115*	*114*	*31.0-160*				
(S) 2-Fluorobiphenyl				*86.5*	*85.0*	*48.0-148*				
(S) p-Terphenyl-d14				*83.0*	*83.5*	*37.0-146*				

Method Blank (MB)

(MB) R4189960-2 03/21/25 16:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) p-Terphenyl-d14	*101*			*23.0-120*
(S) Nitrobenzene-d5	*92.1*			*14.0-149*
(S) 2-Fluorobiphenyl	*89.3*			*34.0-125*

Laboratory Control Sample (LCS)

(LCS) R4189960-1 03/21/25 16:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0551	68.9	50.0-126	
Acenaphthene	0.0800	0.0557	69.6	50.0-120	
Acenaphthylene	0.0800	0.0557	69.6	50.0-120	
Benzo(a)anthracene	0.0800	0.0567	70.9	45.0-120	
Benzo(a)pyrene	0.0800	0.0436	54.5	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0559	69.9	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0614	76.8	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0495	61.9	49.0-125	
Chrysene	0.0800	0.0595	74.4	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0650	81.3	47.0-125	
Fluoranthene	0.0800	0.0627	78.4	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R4189960-1 03/21/25 16:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0614	76.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0618	77.3	46.0-125	
Naphthalene	0.0800	0.0591	73.9	50.0-120	
Phenanthrene	0.0800	0.0597	74.6	47.0-120	
Pyrene	0.0800	0.0614	76.8	43.0-123	
1-Methylnaphthalene	0.0800	0.0610	76.3	51.0-121	
2-Methylnaphthalene	0.0800	0.0590	73.8	50.0-120	
2-Chloronaphthalene	0.0800	0.0597	74.6	50.0-120	
(S) p-Terphenyl-d14			*91.4*	*23.0-120*	
(S) Nitrobenzene-d5			*95.0*	*14.0-149*	
(S) 2-Fluorobiphenyl			*90.9*	*34.0-125*	

L1836840-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1836840-02 03/21/25 17:35 • (MS) R4189960-3 03/21/25 17:55 • (MSD) R4189960-4 03/21/25 18:14

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0995	0.0394	0.0903	0.0758	51.2	36.5	1	10.0-145			17.5	30
Acenaphthene	0.0995	0.00824	0.0650	0.0611	57.0	53.1	1	14.0-127			6.07	27
Acenaphthylene	0.0995	U	0.0601	0.0563	60.4	56.5	1	21.0-124			6.58	25
Benzo(a)anthracene	0.0995	0.308	0.203	0.128	0.000	0.000	1	10.0-139	J6	J3 J6	45.6	30
Benzo(a)pyrene	0.0995	0.297	0.199	0.119	0.000	0.000	1	10.0-141	J6	J3 J6	50.2	31
Benzo(b)fluoranthene	0.0995	0.440	0.295	0.174	0.000	0.000	1	10.0-140	V	J3 V	51.8	36
Benzo(g,h,i)perylene	0.0995	0.195	0.219	0.0939	24.4	0.000	1	10.0-140		J3 J6	80.1	33
Benzo(k)fluoranthene	0.0995	0.149	0.149	0.104	0.000	0.000	1	10.0-137	J6	J3 J6	36.1	31
Chrysene	0.0995	0.360	0.264	0.145	0.000	0.000	1	10.0-145	J6	J3 J6	57.9	30
Dibenz(a,h)anthracene	0.0995	0.0399	0.0993	0.0595	59.6	19.6	1	10.0-132		J3	50.2	31
Fluoranthene	0.0995	0.920	0.555	0.262	0.000	0.000	1	10.0-153	V	J3 V	71.9	33
Fluorene	0.0995	0.0161	0.0735	0.0662	57.7	50.4	1	11.0-130			10.4	29
Indeno(1,2,3-cd)pyrene	0.0995	0.223	0.223	0.0992	0.000	0.000	1	10.0-137	J6	J3 J6	77.0	32
Naphthalene	0.0995	0.00739	0.0782	0.0658	71.2	58.7	1	10.0-135			17.2	27
Phenanthrene	0.0995	0.313	0.234	0.179	0.000	0.000	1	10.0-144	J6	J6	26.6	31
Pyrene	0.0995	0.586	0.371	0.194	0.000	0.000	1	10.0-148	V	J3 V	62.8	35
1-Methylnaphthalene	0.0995	U	0.0712	0.0644	71.5	64.7	1	10.0-142			9.97	28
2-Methylnaphthalene	0.0995	U	0.0781	0.0623	78.5	62.6	1	10.0-137			22.5	28
2-Chloronaphthalene	0.0995	U	0.0637	0.0587	64.0	59.0	1	29.0-120			8.13	24
(S) p-Terphenyl-d14					*70.5*	*59.5*		*23.0-120*				
(S) Nitrobenzene-d5					*89.7*	*83.9*		*14.0-149*				
(S) 2-Fluorobiphenyl					*76.0*	*74.0*		*34.0-125*				

GLOSSARY OF TERMS

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.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RT	Retention Time.
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, the sample preparation volume or weight values differ from the standard, 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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
AEI Consultants - NJ

20 Gibson Place
Freehold, NJ 07728

Billing Information:
Accounts Payable
20 Gibson Place
Freehold, NJ 07728

Pres Chk

Report to:
Brett Huber 732-414-2720

Email To: **bhuber@aeiconsultants.com**

Project Description: Lowell, MA

City/State Collected: Lowell, Massachusetts

Please Circle: PT MT CT (ET)

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # **506716**

Lab Project # **AEICONFNJ-506716**

Collected by (print): Saianda Alka

Site/Facility ID # **LOWELL, MA**

P.O. # 397718

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day ___ STD TAT

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	SV8270PAHSIM 4ozClr-NoPres	TAL Metals 2ozClr-NoPres	TAL Metals Diss. 250mlHDPE-NoPres	V8260TCLNJTIC 40ml/NaHSO4/Syr/MeOH	V8260TCLNJTIC 40mlAmb-HCl	Remarks	Sample # (lab only)
SB-1	Grab	SS	13-14 ft	3/12/25	9:00	5		X	X		X			-01
SB-2	Grab	SS	11-12 ft	3/12/25	9:30	5		X	X		X			-02
SB-3	Grab	SS	11-12 ft	3/12/25	10:00	5		X	X		X			-03
SB-4	Grab	SS	13-14 ft	3/12/25	10:30	5		X	X		X			-04
SB-5	Grab	SS	13-14 ft	3/12/25	11:30	5		X	X		X			-05
		SS				5		X	X		X			
		SS				5		X	X		X			
		SS				5		X	X		X			
		SS				5		X	X		X			
		SS				5		X	X		X			

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1836825
1171

Acctnum: **AEICONFNJ**
Template: **T269466**
Prelogin: **P1138164**
PM: **3813 - Marty Edwards III**
PB: LL 3/12/25
Shipped Via: **FedEX Priority**

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx X Courier _____

Tracking # 2864 4422 4335

Sample Receipt Checklist
COC Seal Present/Intact: __NP __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
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 25	
				EDT9 4.5+0.4-4.9	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3-15-25 Time: 0700	Hold: Condition: NCF / OK

Company Name/Address:
AEI Consultants - NJ

20 Gibson Place
Freehold, NJ 07728

Billing Information:
Accounts Payable
20 Gibson Place
Freehold, NJ 07728

Pres Chk

Report to: **Brett Huber 732-414-2720**

Email To: **bhuber@aeiconsultants.com**

Project Description: Lowell, MA

City/State Collected: Lowell, Massachusettes

Please Circle: PT MT CT (ET)

Regulatory Program(DOD,RCRA,DW,etc):

Client Project # **506716**

Lab Project # **AEICONFNJ-506716**

Collected by (print): Sciarda Mika

Site/Facility ID # **LOWELL, MA**

P.O. # 3477 18

Collected by (signature):

Immediately
Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day ___ STD TAT

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	PAHSIMLVI 40mlAmb-NoPres-WT	SV8270PAHSIM 4ozClr-NoPres	TAL Metals 2ozClr-NoPres	TAL Metals Diss. 250mlHDPE-NoPres	V8260TCLNJTIC 40ml/NaHSO4/Syr/MeOH	V8260TCLNJTIC 40mlAmb-HCl	Remarks	Sample # (lab only)
					W 3-15-25									
TW-1	Grab	GW		3/12/25	12:00	6	X			X		X		-06
TW-2	Grab	GW		3/12/25	13:00	6	X			X		X		-07
TW-3	Grab	GW		3/12/25	14:00	6	X			X		X		-08
TW-4	Grab	GW		3/12/25	15:00	6	X			X		X		-09
TW-5	Grab	GW		3/12/25	14:00	6	X			X		X		-10
		GW				6	X			X		X		

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 183825

1170

Acctnum: **AEICONFNJ**
Template: **T269466**
Prelogin: **P1138164**
PM: **3813 - Marty Edwards III**
PB: UU 3/12/25
Shipped Via: **FedEX Priority**

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx X Courier _____

Tracking # 2864 4422 4335

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) No HCl / MeoH TBR
				1
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 25
				EDAM 4.5 + 0.4 = 4.9
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3-15-25 Time: 0900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Multiple Parcel Form L# 1836825

Parcel Tracking Number	Infrared Thermometer ID	Temperature Reading (°C)	Correction Factor (°C)	Corrected Temperature (°C)	Custody Seal Intact
286444274346	EDA9	1.8	1.4	2.2	Yes / No / Not Present
2864 4422 4335	EDA9	4.5	0.4	4.9	Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present
					Yes / No / Not Present

Name

March 15, 2025
Date

ANALYTICAL REPORT

March 31, 2025

AEI Consultants - NJ

Sample Delivery Group:	L1841110
Samples Received:	03/15/2025
Project Number:	506716
Description:	Lowell, MA
Site:	LOWELL, MA
Report To:	Saranda Alka 20 Gibson Place Freehold, NJ 07728

Entire Report Reviewed By:

Marty Edwards III
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

SAMPLE SUMMARY

IA-2 L1841110-01 Air

Collected by: SA
Collected date/time: 03/12/25 16:30
Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2479598	1	03/30/25 17:23	03/30/25 17:23	CAM	Mt. Juliet, TN

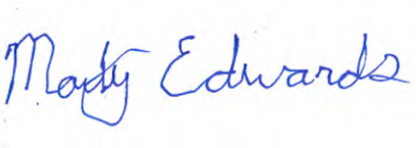
AA-1 L1841110-02 Air

Collected by: SA
Collected date/time: 03/12/25 16:30
Received date/time: 03/15/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2479598	1	03/30/25 18:05	03/30/25 18:05	CAM	Mt. Juliet, TN

CASE NARRATIVE

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 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.



Marty Edwards III
Project Manager

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
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2479598
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG2479598

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
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2479598
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG2479598

Method Blank (MB)

(MB) R4193107-3 03/30/25 10:41

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Naphthalene	U		0.617	0.630
(S) 1,4-Bromofluorobenzene	*98.9*			*60.0-140*

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

(LCS) R4193107-1 03/30/25 09:19 • (LCSD) R4193107-2 03/30/25 10:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	3.75	4.45	4.70	119	125	70.0-159			5.46	25
(S) 1,4-Bromofluorobenzene				*99.2*	*99.7*	*60.0-140*				

GLOSSARY OF TERMS

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.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

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, the sample preparation volume or weight values differ from the standard, 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.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
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
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

M176

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Sample Receipt Checklist
COC Seal Present/Intact: Y N NP
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Unused: —
Size: 5 1L 6 6L ___ 1.4L
Tage Color: G___ W 11 P___ B___
Condition: OK ___NCF

Company Name: **AEI Consultants - NJ**
Street Address: **20 Gibson Place**
Freehold, NJ 07728
City, State Zip:
Customer Project #: **506716**
Project Name: **Lowell, MA**
Site Collection Info/Facility ID (as applicable): **AEICONFNJ-506716 LOWELL, MA**
Time Zone Collected: [ ] AK [ ] PT [ ] MT [X] CT [X] ET

Contact/Report To: **Brett Huber**
Phone #: **732-414-2720**
E-Mail: **bhuber@aeiconsultants.com**
Cc E-Mail:
Invoice to:
Invoice E-Mail: **ap@aeiconsultants.com**
Purchase Order # (if applicable): **347716**
Quote #:
State origin of sample(s): **Massachusettes**

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (CAA, RCRA, etc.) as applicable:
Rush (Pre-approval required): 2 Day 3 day 5 day Other
Date Results Requested:
Permit # as applicable:
Units for Reporting: (ug/m³) PPBV mg/m³ PPMV

Field Information

Analyses Requested

AS 3.5.25

Proj. Manager: **3813 - Marty Edwards III**
AcctNum / Client ID: **AEICONFNJ**
Table #:
Profile / Template: **T269462**
Prelog / Bottle Ord. ID: **P1136297**

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	TO-15 Summa				Lab Use Only: Sample Comment
SS-1	SV	~~12525~~ 12643	~~12462~~ 22462	3/13/25	14:30	3/13/25	14:35	-30	-4	5		1 L	X				~~L1836692-01~~ L1841116 NV 3/28/25
SS-2	SV	24786	24064	3/13/25	13:30	3/13/25	13:35	-30	-4	5		1 L	X				~~02~~
SS-3	SV	8887	11380	3/13/25	14:00	3/13/25	14:05	-30	-6	5		1 L	X				~~03~~
SS-4	SV	12719	22462	~~3/13/25~~	~~14:30~~	4/13/25	16:35	-29	-16	5		1 L	X				~~04~~
SS-5	SV	23956	22647	3/13/25	12:00	3/13/25	12:05	-29	-4	5		1 L	X				~~05~~
IA-1	I	14901	24885	3/12/25	9:30	3/12/25	16:30	-30	-10	480		6 L	X				Hold ~~06~~
IA-2	I	24211	28329	3/12/25	9:30	3/12/25	16:30	-30	-10	480		6 L	X				Hold ~~07~~ -01
IA-3	I	24246	24910	3/12/25	9:30	3/12/25	16:30	-29	-11	480		6 L	X				Hold ~~08~~
IA-4	I	13966	29339	3/12/25	9:30	3/12/25	16:30	-28	-8	480		6 L	X				Hold ~~09~~
IA-5	I	13915	29295	3/12/25	9:30	3/12/25	16:30	-28	-1	480		6 L	X				Hold ~~10~~

Customer Remarks / Special Conditions / Possible Hazards:
Sample SS-4 may have water in it

Collected By: S.A. AEI
Printed Name: Sarandy Arias
Signature:

Additional Instructions from Pace®:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): AMB Corrected Temp. (°C):

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
AEI	3/13/25 17:00			Multi
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: In-Person Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	FedEx UPS Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 3/15 0900	Page: 1 of: 2

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace® Location Requested (City/State):

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR code for instructions

L1841110

Company Name: **AEI Consultants - NJ**	Contact/Report To: **Brett Huber**
Street Address: **20 Gibson Place, Freehold, NJ 07728**	Phone #: **732-414-2720**
City, State Zip:	E-Mail: **bhuber@aeiconsultants.com**
Customer Project #: **506716**	Cc E-Mail:
Project Name: **Lowell, MA**	Invoice to:
Site Collection Info/Facility ID (as applicable): **AEICONFNJ-506716 LOWELL, MA**	Invoice E-Mail: **ap@aeiconsultants.com**
Time Zone Collected: [ ]AK [ ]PT [ ]MT [ ]CT [X]ET	Purchase Order # (if applicable): **397718**
	Quote #:
	State origin of sample(s): **Massachusettes**

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (CAA, RCRA, etc.) as applicable:

Rush (Pre-approval required): 2 Day 3 day 5 day Other

Date Results Requested:

Permit # as applicable:

Units for Reporting: (ug/m³) PPBV mg/m³ PPMV

3.5.25

Proj. Manager: **3813 - Marty Edwards III**

AcctNum / Client ID: **AEICONFNJ**

Table #:

Profile / Template: **T269462**

Prelog / Bottle Ord. ID: **P1136297**

Sample Comment

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	Analyses Requested: TO-15 Summa				Sample Comment
AA-1	A	~~23878~~ 23439	28439	~~3/4/25~~ 3/4/25	9:30	3/4/25	16:30	-29	-10	480		6 L	X				Hold -01
													X				
													X				
													X				
													X				
													X				
													X				
													X				
													X				
													X				

Lab Use Only

Customer Remarks / Special Conditions / Possible Hazards:

Collected By: S.A, AEI
Printed Name: Savanah Allen
Signature:

Additional Instructions from Pace®:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
AEI	3/13/25 17:00		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 3/14 0900

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): Corrected Temp. (°C):

4.6 4.6

Tracking Number: Multi

Delivered by: In- Person Courier FedEX UPS Other

L1836692 AEICONFNJ relog TO-15PACE

R2/R3/R4/RX/EX

Please relog L1836692-7,-11 for TO-15PACE. EX due 4/4

Thank you,

Marty

Committed to you,

Marty Edwards

Client Project Manager 2 / Pace National

Office: 615.773.9681

marty.edwards@pacelabs.com

• • *

From: Saranda Alka <salka@aeiconsultants.com>

Sent: Friday, March 28, 2025 12:18 PM

To: Marty Edwards <Marty.Edwards@pacelabs.com>

Cc: Michael Meares <mmeares@aeiconsultants.com>

Subject: Re: Pace Analytical National Level II Report for 506716 Lowell, MA L1836692

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Marty,

Can we please activate IA-2 and AA-1 for naphthalene only? We need to meet a minimum reporting limit of 42 ug/m3 for this, can that be done with normal TO-15 or do we need to run the SIMs?

Best,

***Saranda Alka**
*** **

Staff Scientist II

AEI Consultants

20 Gibson Place, Suite 310

Freehold, NJ 07728

O: 732.414.2720

C: 646.494.8455

E: salka@aeiconsultants.com

• • *

From: Marty.Edwards@pacelabs.com <Marty.Edwards@pacelabs.com>

Sent: Monday, March 24, 2025 5:09:28 PM

To: Saranda Alka <salka@aeiconsultants.com>

Subject: Pace Analytical National Level II Report for 506716 Lowell, MA L1836692

External Email:

"Privileged and Confidential"

Thank you for choosing Pace National!

Please find enclosed PDF report containing your laboratory analysis and chain of custody.

Pace National is leading the laboratory industry with our On-line Data Management tools. Please contact your Project Manager to learn how to create historical Excel tables or access data in real time using powerful and intuitive software that is only available
at
https://mydata.pacelabs.com.

Pace National ... "Your Lab of Choice"

Marty Edwards III

Project Manager

--

Marty.Edwards@pacelabs.com

Pace Analytical National

12065 Lebanon Rd

Mount Juliet, TN 37122

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Members

ME Marty Edwards (responsible)