

# Limited Site Investigation

EvRo Community Improvement Area  
Evans and Rosedale  
Fort Worth, Tarrant County, Texas

October 21, 2022

Terracon Project No. 95207647, Task 3-6



**Prepared for:**

City of Fort Worth  
Fort Worth, Texas

**Prepared by:**

Terracon Consultants, Inc.  
Fort Worth, Texas  
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**Terracon**

Environmental   ■   Facilities   ■   Geotechnical   ■   Materials

October 21, 2022



City of Fort Worth  
1000 Throckmorton Street  
Fort Worth, Texas 76102

Attn: Ms. Hayley Mann  
P: (817) 392-5146  
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Re: Limited Site Investigation  
Fort Worth Brownfield Assessment Grant  
EvRo Community Improvement Area  
Evans and Rosedale  
Fort Worth, Tarrant County, Texas  
Terracon Project No. 95207647, Task 3-6  
Latitude/Longitude: 32.734413 / -97.318754  
EPA Cooperative Agreement No. BF-01F87601  
EPA ACRES ID No. 15920

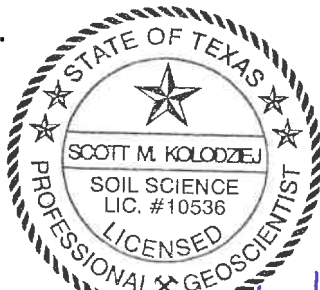
Dear Ms. Mann:

Terracon Consultants, Inc. (Terracon) is pleased to submit our report of Limited Site Investigation (LSI) activities completed at the site referenced above. This investigation was performed in accordance with Terracon's Site-Specific Sampling and Analysis Plan (SSAP) dated July 12, 2022 developed for investigations associated with the City of Fort Worth Brownfields Assessment Grant.

Terracon appreciates this opportunity to provide environmental consulting services to the City of Fort Worth. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,  
**Terracon Consultants, Inc.**

  
Kyle C. Lindquist  
Project Scientist



  
Scott M. Kolodziej, P.G.  
Principal / Department Manager

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## EXECUTIVE SUMMARY

This Limited Site Investigation (LSI) was performed in accordance with the scope of services outlined in Terracon's Site-Specific Sampling and Analysis Plan (SSAP), dated July 12, 2022, developed for the City of Fort Worth Brownfields Assessment Grant. A total of 11 soil borings (SB-1 through SB-11), two monitoring wells (MW-1 and MW-2), and six soil gas probes (SGP-1 through SGP-6) were installed at the site to evaluate potential releases associated with recognized environmental conditions (RECs) identified in the Terracon Consultants, Inc. (Terracon) Phase I Environmental Site Assessment (ESA – Terracon Project No. 95207647, Task 3A15), dated May 13, 2022. Soil and soil gas samples were collected and analyzed in accordance with the procedures outlined in Section 3.

A summary of our findings, conclusions, and recommendations is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

### Findings

Terracon encountered clay from beneath the grass surfaces to approximately 16 to 19 feet below grade surface (bgs) in the deeper soil borings/monitoring wells. Gray shale bedrock was encountered from approximately 16 to 19 feet bgs until termination of the deeper soil borings/monitoring wells at depths of approximately 25 feet bgs.

Terracon made multiple attempts to collect groundwater samples from monitoring well MW-1 and MW-2. As of October 7, 2022 (24 days after monitoring well installation), the monitoring wells did not yield groundwater; therefore, groundwater was unable to be evaluated as a part of this investigation. Terracon submitted additional soil samples from monitoring wells MW-1 and MW-2, which were collected from just above the gray limestone bedrock interval to evaluate the potential for impacts. This interval was considered the most likely to represent a perched water zone, if seasonally present.

### Total Petroleum Hydrocarbons (TPH)

TPH concentrations were not detected above laboratory sample detection limits (SDLs) in the soil samples collected from MW-1, MW-2, SGP-5, and SGP-6.

### Volatile Organic Compounds (VOCs)

VOC concentrations were not detected above laboratory SDLs in the soil samples collected from MW-1, MW-2, SGP-5, and SGP-6, with the exception of methylene chloride and J-flagged (estimated) toluene concentrations in select samples. The detected concentrations of methylene chloride and toluene were below their applicable Texas Risk Reduction Program (TRRP) Action



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Levels. Methylene chloride is considered a common analytical laboratory contaminant; therefore, the concentrations of this chemical detected in the samples may be attributable to or biased by laboratory interference.

The dry-cleaning solvent tetrachloroethene (PCE) was detected at concentrations above the laboratory detection limit in the soil gas samples collected from SGP-1, SGP-2, SGP-3, SGP-5, and SGP-6; however, select daughter products (i.e., trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride) were not detected. The detected PCE concentrations ranging from 1.59 mg/kg to 4.88 mg/kg were well below the calculated Target Concentration of 2,100  $\mu\text{g}/\text{m}^3$  and EPA VISL of 1,390  $\mu\text{g}/\text{m}^3$ . It is noted that the PCE detections were flagged as being present in the laboratory method blank, suggesting a potential for laboratory interference. Benzene, toluene, ethylbenzene, and xylenes (BTEX) constituents and other petroleum hydrocarbon VOCs were detected at concentrations above laboratory detection limits in the soil gas samples collected from SGP-1 through SGP-6. However, the detected concentrations did not exceed their respective Target Concentrations, with the exception of the detected benzene concentration in SGP-4. The detected benzene concentration of 53,000  $\mu\text{g}/\text{m}^3$  was above the Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) of 120  $\mu\text{g}/\text{m}^3$  and the TRRP Risk Based Exposure Limit (RBEL) of 370  $\mu\text{g}/\text{m}^3$ .

### Total Lead

Total lead was detected at concentrations above the laboratory SDL in the soil samples collected from soil borings MW-1, MW-2, SB-1 through SB-11, SGP-1, and SGP-2. The lead concentrations in 12 of 15 samples collected from 0 to 1 foot bgs in these borings exceeded the TRRP Action Level of 15 mg/kg, which is based on the Texas-Specific Background Concentration for lead. Detected lead concentrations that exceeded the Action Level of 15 mg/kg (the TSBC), ranged from 18.1 mg/kg (SB-8 at 0 to 1 foot bgs) to 440 mg/kg (SB-5 at 0 to 1 foot bgs). The maximum lead concentration of 440 mg/kg detected in boring SB-5 was below the TRRP Residential Tier 1  $\text{TotSoil}_{\text{Comb}}$  PCL of 500 mg/kg for combined exposure pathways (i.e., inhalation, incidental ingestion, dermal contact, and vegetable consumption).

Terracon submitted the soil samples collected from 1 to 2 feet bgs in the three soil borings with the highest detected lead concentrations from 0 to 1 foot bgs (SB-5, SB-9, and SGP-2) for lead analysis. The soil samples collected from 1 to 2 feet bgs exhibited lead concentrations of 19.4 mg/kg (SB-5), 20.3 mg/kg (SB-9), and 102 mg/kg (SGP-2).

In accordance with the Texas Commission on Environmental Quality (TCEQ) Guidance *Determining Which Releases are Subject to TRRP*, revised November 19, 2010, synthetic precipitation leaching procedure (SPLP) analysis may be utilized to further evaluate the maximum detected concentration of lead in excess of the TRRP Action Level from each source area in order to evaluate groundwater protectiveness. Per the TRRP guidance, representative groundwater sample collection is applied in conjunction with exercising the SPLP option; however, as of

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October 7, 2022 (24 days after monitoring well installation), monitoring wells MW-1 and MW-2 did not yield groundwater. Based on this observation, the perched water unit at the site, if present seasonally, would likely qualify as a Class 3 groundwater or non-groundwater bearing unit under TRRP. Based on the site conditions and absence of a beneficial-use shallow groundwater-bearing unit, further evaluation of lead concentrations in relation to groundwater protectiveness via SPLP testing was not warranted.

## Conclusions

Based on the absence of groundwater recharge in the monitoring wells over the course of 24 days, a beneficial-use shallow groundwater-bearing unit does not appear to be present at the site.

Lead was detected at variable and sometimes moderately elevated concentrations in shallow soils at the site, presumably related to the past residential uses of the site and presence of lead-based paints. The concentrations of lead in samples from 0 to 1 foot bgs did not exceed the TCEQ PCL of 500 mg/kg protective of combined exposures on residential properties.

VOCs in soil gas, when detected, were largely present at low concentrations well below their respective risk-based criteria with the exception of select petroleum hydrocarbon VOCs in soil gas probe SGP-4. Elevated concentrations of benzene and other hydrocarbon VOCs were present in SGP-4, with the detected benzene concentration being well above the risk-based criteria. Detections of hydrocarbon VOCs in SGP-3, located nearby to the east, were minimal; suggesting that the elevated concentrations in SGP-4 may be due to residual soil impacts proximate to the probe location.

## Recommendations

Terracon recommends that the lead findings for shallow soil be evaluated with respect to the specific proposed uses of the site to evaluate whether additional assessment or remediation of lead in shallow soil is warranted. The objectives and risk tolerances of stakeholders should be considered, in addition to the approaches applied on the closed VCP parcels adjoining the site.

If regulatory closure is desired in relation to the lead findings, Terracon recommends enrolling the site parcels in the TCEQ VCP for general consistency with the approach applied for the adjoining parcels.

Terracon recommends further soil gas assessment in the vicinity of SGP-4 to better understand the magnitude and extent of elevated VOCs in soil gas. Based on the results of supplemental assessment, a VOC vapor intrusion mitigation system (VIMS) may need to be incorporated into the proposed building located in the subject area. Alternatively, if the elevated concentrations are isolated, excavation of impacted soils may eliminate the need for a VIMS in the area.

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If soils located on the site are to be disturbed during future excavations or construction activities, proper procedures should be followed with respect to worker health and safety; and any affected soil encountered should be properly characterized, treated and/or disposed in accordance with applicable local, state, or federal regulations. Terracon recommends completion of a soil management plan (SMP) to aid the developer and/or contractors with appropriately managing soils during future construction. The lead concentrations detected in the shallow soils may not be protective of groundwater if relocated to properties with beneficial-use shallow groundwater; therefore, exports of shallow soil from the site during construction (if applicable) should be done in accordance with an SMP.

The investigation-derived waste (IDW) soils and equipment cleaning water are being characterized as non-hazardous waste and will be transported to the selected receiving facility for disposal in accordance with applicable local, state, and federal regulations.

If regulatory closure of the site is pursued, Terracon recommends the monitoring wells installed during this investigation remain in place until the desired regulatory closure objective is completed for the site.

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## 1.0 SITE DESCRIPTION

<b>Site Name</b>	EvRo Community Improvement Area
<b>Site Address</b>	Evans and Rosedale, Fort Worth, Tarrant County, Texas
<b>Site Description</b>	The site is improved with an approximate 10,000-SF library building with associated concrete-paved parking lots and drives, an approximate 1,380-SF vacant building, and an approximate 7,460-SF vacant building.

A Topographic Map showing the site location is included as Exhibit 1, and a Site Diagram is included as Exhibit 2 (Appendix A).

## 2.0 SCOPE OF SERVICES

Terracon's Limited Site Investigation (LSI) was undertaken in response to the results of our Phase I Environmental Site Assessment (ESA) report dated May 13, 2022 (Terracon Project No. 94207647, Task 3A15), which identified the following recognized environmental conditions (RECs):

- The absence of on-site soil and/or groundwater data for VOCs associated with the historical on-site dry cleaners formerly located at 1005, 1009, and 1013 Evans Avenue.
- The potential for lead impacted soils to be present at 924, 1005, 1009, and 1013 Evans Avenue, 722 East Rosedale, and 810 Missouri Avenue (Historically 1001 Missouri Avenue) based on the apparent absence of lead sampling in the shallow soils and absence of VCP closures.

The objective of the LSI was to evaluate the presence of chemicals of concern associated with the RECs identified by the Phase I ESA. The scope of services was not intended to identify every chemical possibly associated with the site. Similarly, the proposed scope was not intended to determine the extent or magnitude of any existing release.

### 2.1 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, express or implied, regarding the findings, conclusions, or recommendations. Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not intended to be in strict conformance with ASTM E1903-19.

## **2.2 Additional Scope Limitations**

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services. The data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

## **2.3 Reliance**

This report has been prepared for the City of Fort Worth, Texas. Terracon acknowledges that the report may be provided to other parties, including other governmental entities having jurisdiction over the site and that those entities are subject to laws requiring the production of those documents as public records. This shall not change the fact that neither Terracon nor the City of Fort Worth, Texas is granting a right of legal reliance or creating a legal duty of care to any other party without the express written authorization of the City of Fort Worth, Texas and Terracon.

## **3.0 FIELD INVESTIGATION**

### **3.1 Safety and Subsurface Utilities**

Terracon is committed to the safety of all its employees. As such, and in accordance with our Incident and Injury Free® safety goals, Terracon conducted the fieldwork under a site-specific health and safety plan. The plan identified site-specific job hazards and proper pre-task planning procedures. Work was performed using U.S. EPA Level D work attire consisting of hard hats, high-visibility attire, safety glasses, protective gloves, and protective boots. Terracon contacted Texas 811 and requested location and markings for subsurface utilities that the service was responsible for before commencing intrusive activities at the site. In addition, Terracon subcontracted Tri-Star Pipe Inspection to locate private on-site utilities within the work area.

### **3.2 Sampling and Analytical Program Summary**

A total of 11 soil borings (SB-1 through SB-11), two monitoring wells (MW-1 and MW-2), and six soil gas probes (SGP-1 through SGP-6) were advanced/installed at the site. The sample locations were selected to generally represent the areas with the highest potential for detecting chemicals



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of concern based on the locations of potential sources and the presumed groundwater flow direction based on topographic gradient. Refer to the attached Site Diagram (Exhibit 2, Appendix A) for a depiction of the sample locations and pertinent site features. The sampling and analytical program is outlined below.

Area of Concern (AOC)	Sample Type	Designation	Media	Sample Total Per Analyses <sup>1,2</sup> (EPA Method)
Potential On-Site Lead-Based Paint from Historical On-Site Structures	Surface	SB-1 through SB-11, SGP-1 and SGP-2, MW-1 and MW-2	Soil	Total Lead (6020B) - 18
	Groundwater	MW-1 and MW-2	Aqueous	As of October 7, 2022 (24 days since installation), monitoring wells MW-1 and MW-2 did not yield groundwater; therefore, groundwater samples were not collected.
Historical On-Site Dry Cleaners	Surface or Subsurface	MW-1 and MW-2	Soil	VOCs (8260D) - 2 TPH (TCEQ 1005) - 2
	Groundwater		Aqueous	As of October 7, 2022 (24 days since installation), monitoring wells MW-1 and MW-2 did not yield groundwater; therefore, groundwater samples were not collected.
	Soil Gas	SGP-1 and SGP-2	Soil Gas	Select VOCs (TO-15) - 2
Historical On-Site Dry Cleaners, Fueling Stations and Auto Repair Facilities	Surface	SGP-5 and SGP-6	Soil	VOCs (8260D) - 2 TPH (TCEQ 1005) - 2
	Soil Gas	SGP-3 through SGP-6	Soil Gas	Select VOCs (TO-15) - 4

EPA = Environmental Protection Agency; SW-846 analytical methods  
 RCRA = Resource Conservation and Recovery Act  
 TPH = total petroleum hydrocarbons  
 VOCs = volatile organic compounds

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### 3.3 Field Procedures

#### Boring/Well Advancement and Field Screening

Drilling services were performed by a State of Texas licensed driller using a direct-push technology (DPT) track-mounted drilling rig and a truck-mounted drilling rig utilizing hollow stem augers (HSAs). Oversight of the drilling activities was conducted by a Terracon field professional. Soil samples were collected using 4-foot direct-push sampling tubes lined with dedicated PVC liners. Drilling equipment was cleaned using a high-pressure washer prior to beginning the project and before beginning each soil boring. Non-dedicated sampling equipment was cleaned using an Alconox® wash and potable water rinse prior to the beginning of the project and before collecting each soil sample.

Soil samples were collected continuously and observed to document soil lithology, color, moisture content and sensory evidence of impairment. The soil samples were field-screened at 2-foot intervals using a photoionization detector (PID – Ion Science PhoCheck® Tiger) to indicate the presence of VOCs. Terracon calibrated the PID in accordance with the manufacturer's recommendations before the field activities. The boring logs in Appendix C include the lithology and field screening results for each soil boring.

#### Monitoring Well Construction and Development

The monitoring wells were constructed using the following methodology.

- Installation of 20 feet of 2-inch diameter, 0.010-inch machine-slotted PVC well screen with a threaded bottom cap
- Installation of 5 feet of 2-inch diameter, threaded, PVC riser pipe to the near surface
- Addition of a pre-sieved 20/40-grade annular silica sand pack from the bottom of the boring to approximately 2 feet above the top of the well screen
- Addition of hydrated bentonite seal from above the sand pack filter zone to the near surface
- Installation of an 8-inch-diameter, monitoring well manhole cover inset in a flush-mount, concrete well pad

The monitoring well construction details are presented on the soil boring logs in Appendix C.

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### Soil Gas Probe Construction

The soil gas probes were advanced to 5 feet bgs. Soil gas sampling implants, consisting of a screened stainless-steel sampling tip and Teflon®-lined tubing were placed in each borehole, with the sampling tips located at approximately 4 feet bgs. The boreholes were then backfilled with approximately 2 feet of 20/40 silica sand followed by approximately 6 inches of dry bentonite chips. The remainder of the borehole was filled with concrete grout to the surface. Semi-permanent completions were installed at the surface.

### Soil and Groundwater Sample Collection

Terracon's soil sampling program involved assigning one to two soil samples from each soil boring/monitoring well for laboratory analysis. The soil sample collected from the interval exhibiting the highest PID reading and/or highest likelihood of a release based on the field professional's judgment in each soil boring was selected for laboratory analysis. This sampling rationale was applied for soils in the unsaturated or vadose zone. Additional soil samples were collected from each soil boring from for possible vertical delineation purposes. These additional soil samples were submitted to the laboratory and placed on hold for possible analysis if deemed warranted based on the initial analytical results. The soil samples for TPH and VOCs were collected using EPA 5035 field methods. Soil sample intervals for each boring are presented on the soil boring logs included in Appendix C.

Based on the approved scope of work, Terracon made multiple attempts to collect groundwater samples from monitoring wells MW-1 and MW-2. As of October 7, 2022 (24 days after monitoring well installation), monitoring wells MW-1 and MW-2 did not yield groundwater; therefore, groundwater was unable to be evaluated as a part of this investigation.

In addition, per the approved Site-Specific Sampling and Analysis Plan (SSAP), field blanks, equipment blanks, and replicate soil and groundwater samples were prepared/collected and analyzed for select analyses for quality control (QC) purposes.

The samples were collected and placed in laboratory-prepared glassware containing the appropriate preservative, labeled, and placed on ice in sample coolers. The sample coolers were secured with a custody seal and shipped to the selected analytical laboratory. The sample coolers and completed chain-of-custody forms were relinquished to DHL Analytical Laboratories in Round Rock, Texas for analysis on normal turnaround.

### Soil Gas Sample Collection

A period of 48 hours was allowed for sample probe equilibration prior to sampling the soil gas probes using laboratory-supplied 1-liter Summa canisters that were pretested and batch-certified as free of chemicals of concern (COC) by the analytical laboratory. The canisters were connected

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to the sampling probes using dedicated Teflon<sup>®</sup>-lined sample tubing and were equipped with laboratory-supplied flow regulators allowing for sample collection at a low-flow rate (i.e., <200 ml/min).

Prior to sample collection, the sampling trains were tested for leaks using vacuum shut-in methods. Additionally, the soil gas sampling probes and sampling trains were tested for leaks using a shroud filled with helium tracer gas. Approximately three 500-ml volumes were purged from each soil gas sampling probe through the sample train tubing prior to sample collection. These volumes were tested for the presence of helium with a field Helium meter (MGD-2002<sup>®</sup>) to confirm the tightness of the sample train and probes. The results of the vacuum shut-in and helium shroud leak tests did not indicate the presence of leaks.

In addition, one field/materials blank sample was collected by drawing ambient air at the site through a dedicated sampling train constructed of materials from the same stock.

Upon completion of sample collection, the Summa canisters were closed, secured, and appropriately labeled with pertinent sample information. Canister pressures were recorded upon initiation of sample collection, after sample collection, and after receipt at the laboratory. The sample containers were transported under chain-of-custody to Pace Laboratories in Mount Juliet, Tennessee for analysis on normal turnaround.

### **3.4 Boring Abandonment and Investigation-Derived Waste (IDW)**

At the completion of field activities, Terracon abandoned soil borings SB-1 through SB-11 in accordance with state regulations and guidelines. The borings were completed to near surface grade with bentonite pellets, and then hydrated.

Soil cuttings, groundwater and equipment cleaning water generated during the field activities were placed in 55-gallon steel drums, which were closed and appropriately labeled with project-specific information and initial accumulation date. A total of four 55-gallon drums containing soil cuttings and one 55-gallon drum containing equipment cleaning water were generated during these field services and were left on the site for subsequent characterization and disposal.

## **4.0 FIELD INVESTIGATION RESULTS**

### **4.1 Geology/Hydrogeology**

The boring logs in Appendix C detail the observed soil stratigraphy. In general, Terracon encountered clay from beneath the grass surfaces to approximately 16 to 19 feet below grade surface (bgs) in the deeper soil borings/monitoring wells. Gray shale bedrock was encountered from approximately 16 to 19 feet bgs until termination of the deeper soil borings/monitoring wells at depths of approximately 25 feet bgs.

## 4.2 Field Screening

The field screening results are summarized on the boring logs in Appendix C.

PID readings were not detected above the instrument baseline associated with background site conditions in the soil samples collected from the assessment locations, with the exception of SGP-3 and SGP-4, which exhibited PID readings of 20.6 parts per million (ppm) and 62.4 ppm.

## 5.0 ANALYTICAL RESULTS

The laboratory analytical reports and chain-of-custody records are attached in Appendix D. The following sections describe the results of the testing. Chemical of concern (COC) concentrations were compared to applicable Texas Commission on Environmental Quality (TCEQ) Action Levels based on the nature and source of the release and the corresponding regulatory program.

COCs subject to the Petroleum Storage Tank (PST) program (30 TAC §334) were compared to PST Action Levels per TCEQ Regulatory Guidance RG-411, *Investigating and Reporting Releases from Petroleum Storage Tanks*, dated August 12, 2012. There are not published PST Action Levels for TPH. Under the PST program, TPH data are used to screen for PAHs.

COCs subject to the Texas Risk Reduction Program (TRRP – 30 TAC §350) were compared to TRRP Action Levels as defined in the TCEQ guidance *Determining Which Releases are Subject to TRRP*, revised November 19, 2010. Per the guidance, TRRP Action Levels are defined as the lowest applicable Residential Tier 1 Protective Concentration Levels (PCLs) assuming a 0.5-acre source area and Class 1 groundwater.

TRRP Screening Levels for TPH are the Residential Tier 1 PCLs identified in TCEQ Regulatory Guidance RG-366/TRRP-27, *Development of Human Health PCLs for Total Petroleum Hydrocarbon Mixtures*, dated January 2010. These TPH Screening Levels for soil are 65 milligrams per kilogram (mg/kg) for the C<sub>6</sub>-C<sub>12</sub> carbon range, 200 mg/kg for the C<sub>12</sub>-C<sub>28</sub> carbon range, and 200 mg/kg for the C<sub>28</sub>-C<sub>35</sub> carbon range. The TPH Screening Level for groundwater is 0.98 milligrams per Liter (mg/L) for all three carbon ranges.

The detected total lead concentrations in soils were also compared to the TRRP Texas-Specific Background Concentration (TSBC). In cases where the TSBC is greater than the lowest Residential Tier 1 PCL, the TRRP Action Level is the TSBC.

The TCEQ has not established soil gas PCLs, but has published Risk Based Exposure Limits (RBELs) for air inhalation at the point of exposure. The TCEQ has not published formal guidance



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or regulations specific to the vapor intrusion pathway; however, the air-inhalation RBELs represent current TRRP inhalation values protective of human health. Therefore, soil gas VOC concentrations were compared to Soil Gas Target Concentrations calculated using TRRP Residential and Commercial/Industrial RBELs and the current EPA generic attenuation factor of 0.03 for soil gas to indoor air. The soil gas concentrations were also compared to EPA Vapor Intrusion Screening Levels (VISLs) calculated using the EPA's online calculator.

Constituent concentrations qualified with J-flag (J) indicate the constituent was detected at a concentration above the laboratory sample detection limit (SDL), but below the laboratory method quantitation limit (MQL). Constituent concentrations qualified with a J-flag are considered estimated values.

Methylene chloride is considered a common analytical laboratory contaminant. Thus, the concentrations of this chemical detected in the samples may be attributable to or biased by laboratory interference.

### 5.1 Soil Sample Results

The soil analytical data and corresponding Action Levels are summarized in Table 1 (Appendix B).

#### Total Petroleum Hydrocarbons (TPH)

TPH concentrations were not detected above laboratory SDLs in the soil samples collected from MW-1, MW-2, SGP-5, and SGP-6.

#### Volatile Organic Compounds (VOCs)

VOC concentrations were not detected above laboratory SDLs in the soil samples collected from MW-1, MW-2, SGP-5, and SGP-6, with the exception of methylene chloride and J-flagged (estimated) toluene concentrations in select samples. The detected concentrations of methylene chloride and toluene were below their applicable Action Levels.

#### Total Lead

Lead concentrations were detected above the TRRP Action Level and TSBC of 15 mg/kg in soil samples collected at the site, with the exception of lead concentrations detected in samples from borings SB-3, SB-4, and SB-7. Detected lead concentrations that exceeded the Action Level of 15 mg/kg ranged from 18.1 mg/kg (SB-8 at 0 to 1 foot bgs) to 440 mg/kg (SB-5 at 0 to 1 foot bgs). The maximum lead concentration of 440 mg/kg detected in boring SB-5 was below the TRRP Residential Tier 1  $T^{ot}Soil_{Comb}$  PCL of 500 mg/kg for combined exposure pathways (i.e., inhalation, incidental ingestion, dermal contact, and vegetable consumption).

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Terracon submitted the soil samples collected from 1 to 2 feet bgs in the three soil borings with the highest detected lead concentrations at 0 to 1 foot bgs (SB-5, SB-9, and SGP-2) for lead analysis. The soil samples collected from 1 to 2 feet bgs in these borings exhibited lead concentration of 19.4 mg/kg, 20.3 mg/kg, and 102 mg/kg, respectively.

In accordance with the Texas Commission on Environmental Quality (TCEQ) Guidance *Determining Which Releases are Subject to TRRP*, revised November 19, 2010, synthetic precipitation leaching procedure (SPLP) analysis may be utilized to further evaluate the maximum detected concentration of lead in excess of the TRRP Action Level from each source area in order to evaluate groundwater protectiveness. Per the TRRP guidance, representative groundwater sample collection is applied in conjunction with exercising the SPLP option; however, as of October 7, 2022 (24 days after monitoring well installation), monitoring wells MW-1 and MW-2 did not yield groundwater. Based on this observation, the perched water unit at the site, if present seasonally, would likely qualify as a Class 3 groundwater or non-groundwater bearing unit under TRRP. Based on the site conditions and absence of a beneficial-use shallow groundwater-bearing unit, further evaluation of lead concentrations in relation to groundwater protectiveness via SPLP testing was not warranted.

### 5.2 Groundwater Sample Results

Terracon made multiple attempts to collect groundwater samples from monitoring wells MW-1 and MW-2. As of October 7, 2022 (24 days after monitoring well installation), the monitoring wells did not yield groundwater; therefore, groundwater was unable to be evaluated as a part of this investigation. Terracon submitted additional soil samples from monitoring wells MW-1 and MW-2, which were collected from just above the gray limestone bedrock interval to evaluate the potential for impacts. This interval was considered the most likely to represent a perched water zone, if seasonally present.

### 5.3 Soil Gas Sample Results

The soil gas analytical data and corresponding Target Concentrations are summarized in Table 2 (Appendix B).

The dry cleaning solvent tetrachloroethene (PCE) was detected at concentrations above the laboratory detection limit in the soil gas samples collected from SGP-1, SGP-2, SGP-3, SGP-5, and SGP-6; however, select daughter products (i.e., trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride) were not detected. The detected PCE concentrations ranging from 1.59 B mg/kg to 4.88 B mg/kg were well below the calculated Target Concentration of 2,100  $\mu\text{g}/\text{m}^3$  and EPA VISL of 1,390  $\mu\text{g}/\text{m}^3$ . Furthermore, the detected concentrations of were qualified with a B-flag, indicating that PCE was also detected in the

## Limited Site Investigation

EvRo Community Improvement Area ■ Fort Worth, Texas  
October 21, 2022 ■ Terracon Project No. 95207647, Task 3-6



laboratory method blank. Terracon requested an explanation from Pace Analytical National (Pace), and on September 30, 2022, the laboratory provided the following response:

*“The Method blank detection is directly related to canisters that analyzed in the previous batch. Detection in the method blank is less than 1/2RL – which meets quality objectives – however, while the detections in client samples were above RL, they are still within 10x background and therefore were qualified appropriately with the B qualifier. Client can assume that detection in the method blank impacted the sample result at a similar concentration as seen in the MB.”*

Based on the explanation from the laboratory, the detected concentrations of PCE in the soil gas samples collected from the site appear to be a result of laboratory interference.

Benzene, toluene, ethylbenzene, and xylenes (BTEX) constituents and other petroleum hydrocarbon VOCs were detected at concentrations above laboratory detection limits in the soil gas samples collected from SGP-1 through SGP-6. The detected concentrations did not exceed their respective Target Concentrations, with the exception of the detected benzene concentration in SGP-4. The detected benzene concentration of 53,000  $\mu\text{g}/\text{m}^3$  in SGP-4 was above the EPA VISL of 120  $\mu\text{g}/\text{m}^3$  and the calculated TRRP-RBEL-based Target Concentration of 370  $\mu\text{g}/\text{m}^3$ .

### 5.4 QA/QC Analysis

Terracon collected field replicate soil samples from monitoring well MW-1 for analysis of VOCs and TPH, and soil borings SB-2 and SGP-1 for analysis of total lead. Based on the laboratory analytical results, the replicate and original soil sample collected from monitoring well MW-1 did not indicate the presence of TPH or VOCs above laboratory SDLs.

One trip blank, as sealed and provided by DHL Analytical, was submitted with each cooler of soil samples. The trip blanks submitted with soil samples on September 12, 2022 did not exhibit concentrations of VOCs above laboratory SDLs.

One equipment cleaning blank and field blank were collected during field activities. The blanks submitted with soil samples on September 12, 2022 did not exhibit concentrations of VOCs or TPH above laboratory SDLs.

Matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on the soil sample collected from soil boring MW-1 (VOCs and TPH). Review of the Laboratory Review Checklist (LRC) indicated that the MS/MSD recoveries and RPDs were inside the control limits with the exception of the following:

- Exception Report R7-03 – For Volatiles analysis performed on 9/22/22 (batch 107106) the matrix spike and matrix spike duplicate recoveries were out of control limits for twenty compounds. This was due to matrix interference. These are

## Limited Site Investigation

EvRo Community Improvement Area ■ Fort Worth, Texas  
October 21, 2022 ■ Terracon Project No. 95207647, Task 3-6



flagged accordingly. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these compounds. No further corrective actions were taken.

- Exception Report R7-03 – For Metals analysis performed on 9/29/22 (batch 107168) the matrix spike and matrix spike duplicate recoveries were above control limits for Lead. These are flagged accordingly. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for this analyte. No further corrective actions were taken.
  
- Exception Report R7-04 – For Volatiles analysis performed on 9/14/22 (batch 107035) the matrix spike duplicate recovery was slightly below control limits for five compounds. In addition, the matrix spike and matrix spike duplicate (batch 107035) had the RPD slightly above control limits for Naphthalene. These are flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these compounds. No further corrective actions were taken.

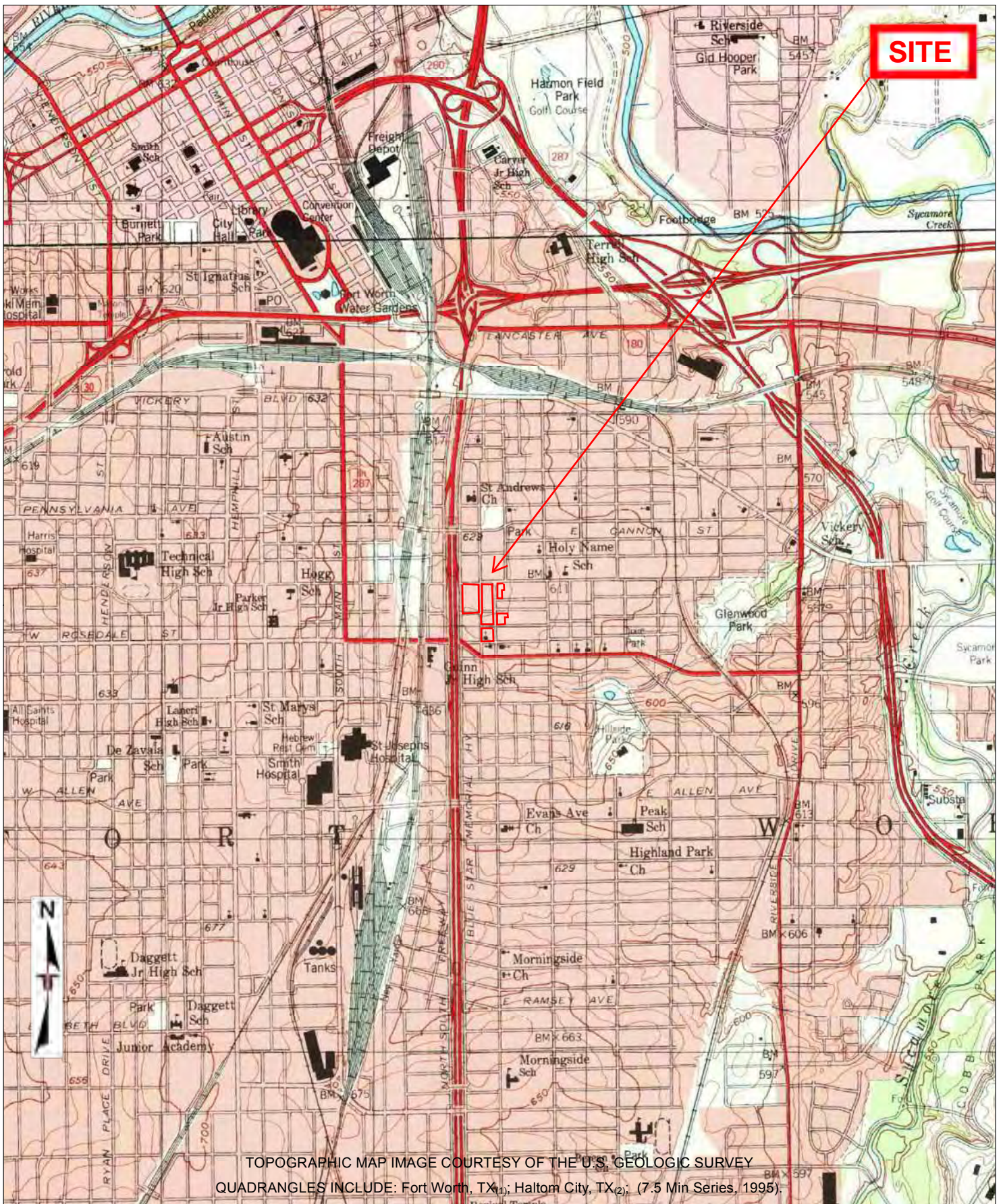
Terracon reviewed the QC data outlined in the above exception reports. Based on the nature and magnitude of the exceptions, and comparison of the exceptions to the reported COC concentrations in critical samples and corresponding Action Levels, it was concluded that the data met quality objectives for the purposes of this assessment.

**APPENDIX A – EXHIBITS**

Exhibit 1 – Topographic Map

Exhibit 2 – Site Diagram





Project Manager:	Project No:
KCL	95207647 3.6
Drawn By:	Scale:
EDR	1" = 500'
Checked By:	File Name:
KCL	22030300962
Approved By:	Date:
SMK	2022-03-07



2501 E Loop 820 N  
 Ft. Worth, Texas 76118

TOPOGRAPHIC MAP (1995)

EvRo Community Improvement Area -  
 Evans and Rosedale  
 Fort Worth, Tarrant County, Texas

Exhibit

1





Date: 05/05/22 C:\Users\CherylDriscoll\OneDrive - TLP Solutions\drawings\Terracon\Fort Worth\95207647-3A15 revised.dwg Layout: historical Current Layer: ---LOTS

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

SOURCE: GOOGLE EARTH, 2022; IMAGERY DATE: 8/5/2021

Project Mng:	KCL
Drawn By:	CDD
Checked By:	KCL
Approved By:	SMK

Project No:	95207647.3.6
Scale:	AS SHOWN
Date:	05/05/22

**Terracon**  
 Consulting Engineers and Scientists  
 (Registration No.: F-3272)  
 2501 EAST LOOP 820 N. FORT WORTH, TX 76118  
 PH. (817) 268-8600 FAX. (817) 268-8602

**SITE DIAGRAM**  
 EvRo Community Improvement Area  
 Evans and Rosedale  
 Fort Worth, Tarrant County, Texas

**APPENDIX B – TABLES**

Table 1 – Soil Analytical Summary

Table 2 – Soil Gas Analytical Summary

**Table 1**  
**Soil Analytical Summary**  
**Evans and Rosedale**  
**Fort Worth, Texas**  
**Project No. 95207647 Task 3.6**

Parameter	Method	TRRP Total Soil <sub>Comb</sub> <sup>1</sup> PCL (mg/kg)	TRRP Action Level <sup>2</sup> (mg/kg)	Sample Identifier													
				MW-1			DUP-MW-1		MW-2		SB-1	SB-2	DUP-SB-2	SB-3	SB-4	SB-5	
				0-1' 9/12/2022	5-7' 9/12/2022	17-19' 9/12/2022	5-7' 9/12/2022	0-1' 9/12/2022	5-7' 9/12/2022	15-16' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022
<b>RCRA metals (mg/kg)</b>																	
Lead	EPA 6020	500	15	<b>74.4</b>	---	---	---	<b>296</b>	---	---	<b>44.3</b>	<b>46.2</b>	<b>27.0</b>	<b>13.8</b>	<b>13.6</b>	<b>440</b>	<b>19.4</b>
<b>Total Petroleum Hydrocarbons (TPH) (mg/kg)</b>																	
C8-C12	TX 1005	1,600	65	---	<SDL	<SDL	<SDL	---	<SDL	<SDL	---	---	---	---	---	---	---
>C12-C28	TX 1005	2,300	200	---	<SDL	<SDL	<SDL	---	<SDL	<SDL	---	---	---	---	---	---	---
>C28-C35	TX 1005	2,300	200	---	<SDL	<SDL	<SDL	---	<SDL	<SDL	---	---	---	---	---	---	---
C6-C35	TX 1005	N/A	N/A	---	<SDL	<SDL	<SDL	---	<SDL	<SDL	---	---	---	---	---	---	---
<b>Volatile Organic Compounds (VOCs) (mg/kg)</b>																	
Toluene	EPA 8260B	5,900	8.2	---	<SDL	<SDL	<b>0.000952 J</b>	---	<b>0.00112 J</b>	<SDL	---	---	---	---	---	---	---
Methylene Chloride	EPA 8260B	1,600	0.013	---	<SDL	<SDL	<b>0.00587</b>	---	<b>0.00699</b>	<SDL	---	---	---	---	---	---	---

- Notes**
1. Texas Risk Reduction Program (TRRP) Residential Tier 1 Total-Soil-Combined (<sup>15</sup>Soil<sub>Comb</sub>) Protective Concentration Level (PCL) for combined exposure pathways (i.e., inhalation, incidental ingestion, dermal contact, and vegetable consumption)
  2. Texas Risk Reduction Program (TRRP) Action Levels as defined in the TCEQ guidance *Determining Which Releases are Subject to TRRP*, revised November 19, 2010

Only constituents detected above the laboratory sample detection limit (SDL) are reported for VOCs, unless otherwise noted

<SDL = Constituent not detected above the laboratory SDL

J = Estimated value, constituent detected above laboratory SDL but below the method quantitation limit (MQL)

N/A = Not applicable

--- = Not analyzed

Bold denotes concentrations above laboratory SDLs

**Bold and blue shaded denotes concentrations exceeding TRRP Action Levels; no concentrations exceeded TRRP <sup>15</sup>Soil<sub>Comb</sub> PCL**

**Table 1**  
**Soil Analytical Summary**  
**Evans and Rosedale**  
**Fort Worth, Texas**  
**Project No. 95207647 Task 3.6**

Parameter	Method	TRRP Soil <sub>Comb</sub> <sup>1</sup> PCL (mg/kg)	TRRP Action Level <sup>2</sup> (mg/kg)	Sample Identifier														
				SB-6	SB-7	SB-8	SB-9		SB-10	SB-11	SGP-1	DUP-SGP-1	SGP-2		SGP-5	SGP-6		
				0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	1-2' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1' 9/12/2022	0-1* 9/12/2022	0-1' 9/12/2022	1-2' 9/12/2022	3-5' 9/12/2022	1-3' 9/12/2022		
<b>RCRA metals (mg/kg)</b>																		
Lead	EPA 6020	500	15	<b>290</b>	<b>6.94</b>	<b>18.1</b>	<b>414</b>	<b>20.3</b>	<b>41.8</b>	<b>97.9</b>	<b>207</b>	<b>67.8</b>	<b>369</b>	<b>102</b>	---	---		
<b>Total Petroleum Hydrocarbons (TPH) (mg/kg)</b>																		
C8-C12	TX 1005	1,600	65	---	---	---	---	---	---	---	---	---	---	---	---	<SDL	<SDL	
>C12-C28	TX 1005	2,300	200	---	---	---	---	---	---	---	---	---	---	---	---	<SDL	<SDL	
>C28-C35	TX 1005	2,300	200	---	---	---	---	---	---	---	---	---	---	---	---	<SDL	<SDL	
C6-C35	TX 1005	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	<SDL	<SDL	
<b>Volatile Organic Compounds (VOCs) (mg/kg)</b>																		
Toluene	EPA 8260B	5,900	8.2	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00188 J	<SDL
Methylene Chloride	EPA 8260B	1,600	0.013	---	---	---	---	---	---	---	---	---	---	---	---	---	<b>0.00702</b>	<b>0.00765</b>

- Notes**
1. Texas Risk Reduction Program (TRRP) Residential Tier 1 Total-Soil-Combined (<sup>15</sup>Soil<sub>Comb</sub>) Protective Concentration Level (PCL) for combined exposure pathways (i.e., inhalation, incidental ingestion, dermal contact, and vegetable consumption)
  2. Texas Risk Reduction Program (TRRP) Action Levels as defined in the TCEQ guidance *Determining Which Releases are Subject to TRRP*, revised November 19, 2010

Only constituents detected above the laboratory sample detection limit (SDL) are reported for VOCs, unless otherwise noted

<SDL = Constituent not detected above the laboratory SDL

J = Estimated value, constituent detected above laboratory SDL but below the method quantitation limit (MQL)

N/A = Not applicable

--- = Not analyzed

Bold denotes concentrations above laboratory SDLs

**Blue and blue shaded denotes concentrations exceeding TRRP Action Levels; no concentrations exceeded TRRP <sup>15</sup>Soil<sub>Comb</sub> PCL**



**TABLE 2**  
**Soil Gas Analytical Summary**  
**Evans and Rosedale**  
**Fort Worth, Texas**  
**Project No. 95207647 Task 3.6**

Parameter	TRRP Soil Gas Target Concentration (Residential) <sup>1</sup>	EPA VISL (Residential) <sup>2</sup>	SGP-1	SGP-2	SGP-3	SGP-4	SGP-5	SGP-6	FB-1
			9/21/22	9/21/22	9/21/22	9/21/22	9/21/22	9/21/22	9/21/22
<b>Select Volatile Organic Compounds (VOCs) - EPA Method TO-15 (µg/m3)</b>									
Benzene	370	120	<b>1.93</b>	<b>1.42</b>	<b>2.82</b>	<b>53000</b>	<b>1.98</b>	<b>2.07</b>	<b>1.61</b>
Toluene	140000	174000	<b>3.70</b>	< 1.88	<b>3.84</b>	<b>2890</b>	<b>2.72</b>	<b>3.60</b>	<b>2.44</b>
Ethylbenzene	67000	373	<b>1.08</b>	< 0.867	< 0.867	< 86.7	<b>1.16</b>	< 0.867	< 0.867
Xylene, m&p-	21000	3470	<b>3.75</b>	<b>2.41</b>	<b>3.04</b>	< 173	<b>3.46</b>	<b>2.46</b>	< 1.73
Xylene,o-	21000	3470	<b>1.57</b>	< 0.867	<b>1.07</b>	< 86.7	<b>1.47</b>	< 0.867	< 0.867
Tetrachloroethene	2100	1390	<b>4.03</b>	<b>B</b>	<b>1.59</b>	<b>B</b>	<b>3.72</b>	<b>B</b>	<b>34.6</b>
Butanone, 2- (MEK)	310000	174000	<b>6.90</b>	< 3.69	<b>4.13</b>	< 369	<b>6.58</b>	< 3.69	<b>3.77</b>
Ethyltoluene, 4-	14000	NC	< 0.982	< 0.982	< 0.982	<b>2600</b>	< 0.982	< 0.982	< 0.982
Isopropylbenzene	14000	13900	< 0.983	< 0.983	< 0.983	<b>12700</b>	< 0.983	< 0.983	< 0.983
Methylene Chloride	29000	20900	<b>1.23</b>	< 0.694	<b>1.26</b>	<b>251</b>	<b>0.833</b>	< 0.694	<b>1.53</b>
Trimethylpentane, 2,2,4-	NP	NP	<b>19.9</b>	<b>53.3</b>	<b>91.6</b>	<b>4380000</b>	<b>112</b>	<b>125</b>	<b>115</b>
Remaining Analyzed Analytes	N/A	N/A	< SDLs	< SDLs	< SDLs	< SDLs	< SDLs	< SDLs	< SDLs

**Notes**

1. Calculated using Texas Risk Reduction Program (TRRP) air-inhalation Risk Based Exposure Limits (RBELs) and EPA attenuation factor of 0.03.
2. Calculated using USEPA online Vapor Intrusion Screening Level (VISL) Calculator for residential use, a cancer risk factor of 10E-05, a hazard quotient of 1.0, and an attenuation factor of 0.03.

B = The constituent was detected in the laboratory method blank

**Bold denotes concentrations exceeding the laboratory SDL**

NP = Not Published

**YELLOW shaded concentrations exceed both the TRRP Soil Gas Target Concentration (Residential) and the EPA VISL (Residential)**

**APPENDIX C – SOIL BORING LOGS**

# WELL LOG NO. MW-1

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

GRAPHIC LOG	LOCATION See Exhibit 2	INSTALLATION DETAILS	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION	Well Completion:						
	<b>SILTY CLAY (CL-ML)</b> , brown, grass surface, moist	Concrete	0			<1	0-1'	1254
		Bentonite	1			<1	1-2'	1254
			2			<1	2-3'	1254
		20/40 Sand	3			<1		
			4			<1		
	-with calcareous nodules from 6-7'		5			<1	5-7'	1257
			6			<1		
			7			<1		
	<b>CLAY WITH SILT (CH)</b> , brown, moist		8			<1		
			9			<1		
			10			<1		
			11			<1		
	<b>CLAY (CH)</b> , brown, moist		12			<1		
			13			<1		
			14			<1		
		0.01" Slotted Pipe	15			<1		
			16			<1		
			17			<1		
			18			<1		
	19.0 Direct Push Technology (DPT) refusal at 19'. switched to solid flight augers (SFA).		19			<1	17-19'	1306
	<b>SHALE</b> , gray		20					
			21					
			22					
			23					
			24					
			25					
	<b>Boring Terminated at 25 Feet</b>		25					



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT/SFA		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.
Abandonment Method:		
<b>WATER LEVEL OBSERVATIONS</b> No seepage encountered during drilling Dry at completion	 8901 John W Carpenter Fwy Ste 100 Dallas, TX	Well Started: 09-12-2022 Well Completed: 09-12-2022 Drill Rig: Geoprobe Driller: Sunbelt Project No.: 95207647 3.6 Exhibit: C-1



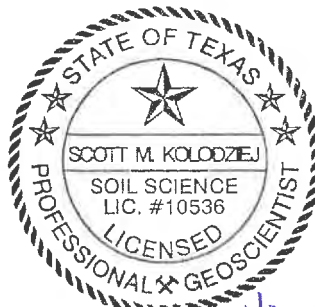
# BORING LOG NO. SB-1

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , brown, grass surface, moist			X	<1	0-1'	1130
				X	<1	1-2'	1130
				X	<1	2-3'	1130
	4.0				<1		
<b>Boring Terminated at 4 Feet</b>							



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.
Abandonment Method: Boring backfilled with bentonite chips upon completion.		
<b>WATER LEVEL OBSERVATIONS</b> No seepage encountered during drilling Dry at completion	8901 John W Carpenter Fwy Ste 100 Dallas, TX	Boring Started: 09-12-2022 Drill Rig: Geoprobe Project No.: 95207647 3.6
		Boring Completed: 09-12-2022 Driller: Sunbelt Exhibit: C-111

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

# BORING LOG NO. SB-2

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , brown, grass surface, moist			X	<1	0-1'	1111
				X	<1	1-2'	1111
				X	<1	2-3'	1111
	4.0				<1		
<b>Boring Terminated at 4 Feet</b>							



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

Notes:  
This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**

*No seepage encountered during drilling  
Dry at completion*



Boring Started: 09-12-2022	Boring Completed: 09-12-2022
Drill Rig: Geoprobe	Driller: Sunbelt
Project No.: 95207647 3.6	Exhibit: C-112

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22



# BORING LOG NO. SB-3

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/IPID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , dark brown, grass surface, moist			X	<1	0-1'	1056
				X	<1	1-2'	1056
				X	<1	2-3'	1056
	3.5						
	4.0 <b>LIMESTONE</b> , tan, dry				<1		
	<b>Boring Terminated at 4 Feet</b>						



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.	
Abandonment Method: Boring backfilled with bentonite chips upon completion.			
<b>WATER LEVEL OBSERVATIONS</b>  No seepage encountered during drilling Dry at completion	 8901 John W Carpenter Fwy Ste 100 Dallas, TX	Boring Started: 09-12-2022 Drill Rig: Geoprobe Project No.: 95207647 3.6	Boring Completed: 09-12-2022 Driller: Sunbelt Exhibit: C-113

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22



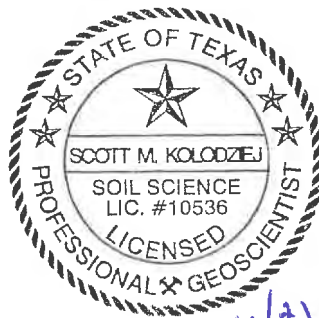
# BORING LOG NO. SB-4

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , brown, grass surface, moist			X	<1	0-1'	0921
				X	<1	1-2'	0921
				X	<1	2-3'	0921
	4.0				<1		
	<b>Boring Terminated at 4 Feet</b>						



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.
Abandonment Method: Boring backfilled with bentonite chips upon completion.		
<b>WATER LEVEL OBSERVATIONS</b>  No seepage encountered during drilling Dry at completion	 8901 John W Carpenter Fwy Ste 100 Dallas, TX	Boring Started: 09-12-2022 Drill Rig: Geoprobe Project No.: 95207647 3.6
		Boring Completed: 09-12-2022 Driller: Sunbelt Exhibit: C-114

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

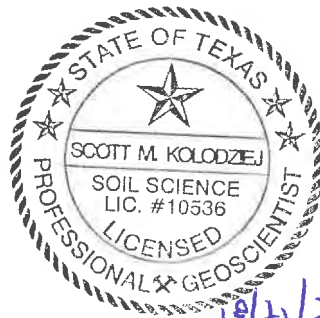
# BORING LOG NO. SB-5

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	See Exhibit 2						
	MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , dark brown, grass surface, with gray laminant tile			X	<1	0-1'	0914
				X	<1	1-2'	0914
	3.0			X	<1	2-3'	0914
	<b>SILTY CLAY (CL-ML)</b> , brown, moist				<1		
	4.0						
	<b>Boring Terminated at 4 Feet</b>						



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

Notes:

This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**

*No seepage encountered during drilling  
Dry at completion*



Boring Started: 09-12-2022

Boring Completed: 09-12-2022

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 95207647 3.6

Exhibit: C-115

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT: ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

# BORING LOG NO. SB-6

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , brown, grass surface, moist			X	<1	0-1'	0928
				X	<1	1-2'	0928
				X	<1	2-3'	0928
	4.0				<1		
	<b>Boring Terminated at 4 Feet</b>						



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

Notes:  
This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**

*No seepage encountered during drilling  
Dry at completion*



Boring Started: 09-12-2022	Boring Completed: 09-12-2022
Drill Rig: Geoprobe	Driller: Sunbelt
Project No.: 95207647 3.6	Exhibit: C-116

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22


# BORING LOG NO. SB-7

<b>PROJECT:</b> EVRO Community Improvement Area	<b>CLIENT:</b> City of Fort Worth Fort Worth, Texas
<b>SITE:</b> Evans and Rosedale Fort Worth, Texas	

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						

4.0	<b>SILTY CLAY (CL-ML)</b> , dark brown, grass surface, moist			X	<1	0-1'	0954
				X	<1	1-2'	0954
				X	<1	2-3'	0954
					<1		

**Boring Terminated at 4 Feet**



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.	
Abandonment Method: Boring backfilled with bentonite chips upon completion.		<b>WATER LEVEL OBSERVATIONS</b> <i>No seepage encountered during drilling</i> <i>Dry at completion</i>	Boring Started: 09-12-2022 Drill Rig: Geoprobe Project No.: 95207647 3.6



THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

# BORING LOG NO. SB-8

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	0.2 SAND WITH GRAVEL, tan, grass surface, moist			X	<1	0-1'	0946
	SILTY CLAY (CL-ML), dark brown, moist			X	<1	1-2'	0946
				X	<1	2-3'	0946
	4.0				<1		
<b>Boring Terminated at 4 Feet</b>							



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

**WATER LEVEL OBSERVATIONS**

*No seepage encountered during drilling  
Dry at completion*

**Notes:**

This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.



Boring Started: 09-12-2022

Boring Completed: 09-12-2022

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 95207647 3.6

Exhibit: C-118

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22



# BORING LOG NO. SB-9

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	See Exhibit 2						
	MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , brown, grass surface, moist			X	<1	0-1'	0940
	-dark brown			X	<1	1-2'	0940
				X	<1	2-3'	0940
	4.0				<1		
	<b>Boring Terminated at 4 Feet</b>						



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

Notes:

This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**

*No seepage encountered during drilling  
Dry at completion*



Boring Started: 09-12-2022

Boring Completed: 09-12-2022

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 95207647 3.6

Exhibit: C-119

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

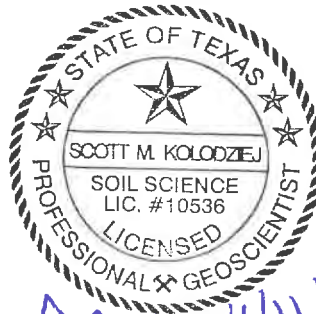
# BORING LOG NO. SB-10

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVAPID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	See Exhibit 2						
	DEPTH	MATERIAL DESCRIPTION					
	3.5	<b>SILTY CLAY (CL-ML)</b> , dark brown, grass surface, moist -tree roots at 1'			<1	0-1'	1034
					<1	1-2'	1034
					<1	2-3'	1034
	4.0	<b>LIMESTONE</b> , tan, dry <i>Boring Terminated at 4 Feet</i>			<1		



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT

Abandonment Method:  
Boring backfilled with bentonite chips upon completion

Notes:

This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**

*No seepage encountered during drilling  
Dry at completion*



Boring Started: 09-12-2022

Boring Completed: 09-12-2022

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 95207647 3.6

Exhibit: C-120

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22



# BORING LOG NO. SB-11

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , dark brown, grass surface, moist			X	<1	0-1'	1026
				X	<1	1-2'	1026
				X	<1	2-3'	1026
					<1		
	<b>Boring Terminated at 4 Feet</b>						



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

Notes:  
This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**

*No seepage encountered during drilling  
Dry at completion*



Boring Started: 09-12-2022	Boring Completed: 09-12-2022
Drill Rig: Geoprobe	Driller: Sunbelt
Project No.: 95207647 3.6	Exhibit: C-121

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

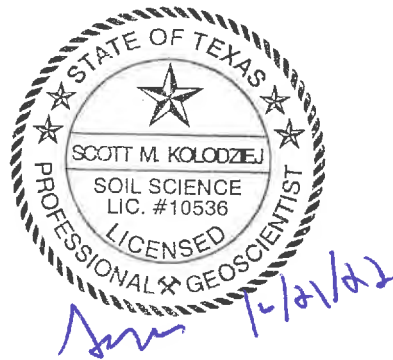
# BORING LOG NO. SGP-1

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PIID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , dark brown, grass surface, moist			X	<1	0-1'	1123
				X	<1	1-2'	1123
				X	<1	2-3'	1123
	4.0				<1		
<b>Boring Terminated at 4 Feet</b>							



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT/SFA		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.	
Abandonment Method:			
<b>WATER LEVEL OBSERVATIONS</b>  No seepage encountered during drilling Dry at completion	 8901 John W Carpenter Fwy Ste 100 Dallas, TX	Boring Started: 09-12-2022 Drill Rig: Geoprobe Project No.: 95207647 3.6	Boring Completed: 09-12-2022 Driller: Sunbelt Exhibit: C-221

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

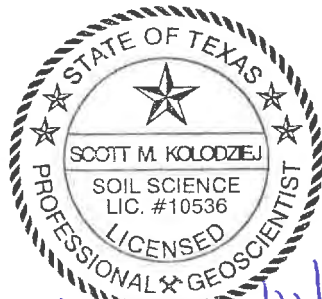
# BORING LOG NO. SGP-2

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>SILTY CLAY (CL-ML)</b> , brown, grass surface, moist			X	<1	0-1'	1103
				X	<1	1-2'	1103
				X	<1	2-3'	1103
	4.0				<1		
	<b>Boring Terminated at 4 Feet</b>						



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT/SFA		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.
Abandonment Method:		
<b>WATER LEVEL OBSERVATIONS</b> No seepage encountered during drilling Dry at completion	 8901 John W Carpenter Fwy Ste 100 Dallas, TX	Boring Started: 09-12-2022 Drill Rig: Geoprobe Project No.: 95207647 3.6
		Boring Completed: 09-12-2022 Driller: Sunbelt Exhibit: C-222

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

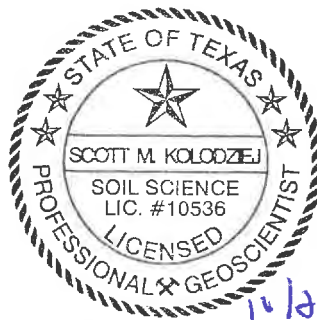
# BORING LOG NO. SGP-3

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVAPID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	CLAY (CH), brown, grass surface				20.6		
	5.0 Boring Terminated at 5 Feet	5					



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
Solid Flight Auger

Abandonment Method:

Notes:

This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**



8901 John W Carpenter Fwy Ste 100  
Dallas, TX

Boring Started: 09-12-2022

Boring Completed: 09-12-2022

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 95207647 3.6

Exhibit: C-225

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

# BORING LOG NO. SGP-4

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVAPID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	CLAY (CH), dark brown, grass surface				62.4		
	5.0 Boring Terminated at 5 Feet	5					



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
Solid Flight Auger

Abandonment Method:

Notes:

This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**



8901 John W Carpenter Fwy Ste 100  
Dallas, TX

Boring Started: 09-12-2022

Boring Completed: 09-12-2022

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 95207647 3.6

Exhibit: C-228

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22

# BORING LOG NO. SGP-5

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<p><b>CLAY (CH)</b>, brown, grass surface</p> <p>-red brick fragments at 1', some calcareous nodules</p>	5.0			<1		
				X	<1	3-5'	0847
	<p><b>Boring Terminated at 5 Feet</b></p>	5					



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method: DPT/SFA		Notes: This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.
Abandonment Method:		
<b>WATER LEVEL OBSERVATIONS</b>	<b>Terracon</b>	Boring Started: 09-12-2022 Drill Rig: Geoprobe Project No.: 95207647 3.6
	8901 John W Carpenter Fwy Ste 100 Dallas, TX	Boring Completed: 09-12-2022 Driller: Sunbelt Exhibit: C-225

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22



# BORING LOG NO. SGP-6

**PROJECT:** EVRO Community Improvement Area

**CLIENT:** City of Fort Worth  
Fort Worth, Texas

**SITE:** Evans and Rosedale  
Fort Worth, Texas

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	OVA/PID (ppm)	SAMPLE INTERVAL	SAMPLE TIME
	DEPTH MATERIAL DESCRIPTION						
	<b>CLAY (CH)</b> , dark brown, grass surface -red brick fragments at 1'				<1		
				X	<1	1-3'	0842
					<1		
	5.0 <b>Boring Terminated at 5 Feet</b>	5					



The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:  
DPT/SFA

Abandonment Method:

Notes:

This boring log is not valid if separated from the original report. USCS designation is an approximation based on field observation and is not based on laboratory testing.

**WATER LEVEL OBSERVATIONS**



8901 John W Carpenter Fwy Ste 100  
Dallas, TX

Boring Started: 09-12-2022

Boring Completed: 09-12-2022

Drill Rig: Geoprobe

Driller: Sunbelt

Project No.: 95207647 3.6

Exhibit: C-228

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. ENVIRONMENTAL SMART LOG 95207647 TASK 3.6.GPJ TERRACON\_DATATEMPLATE.GDT 10/10/22



**APPENDIX D – ANALYTICAL REPORT AND CHAIN OF  
CUSTODY**



October 10, 2022

Kyle Lindquist  
Terracon  
1801 Handley Ederville Rd  
Ft Worth, TX 76118  
TEL: (817) 268-8600  
FAX (817) 268-8602  
RE: Rosedale

Order No.: 2209090

Dear Kyle Lindquist:

DHL Analytical, Inc. received 56 sample(s) on 9/13/2022 for the analyses presented in the following report.

REVISION#1: This revision consists of correcting the Case Narrative (R3-08) as per the client. Please replace the original report with this revised report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont  
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-22-28



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2300 Double Creek Dr. Round Rock, TX 78664  
 Phone 512.388.8222  
 Web: [www.dhlanalytical.com](http://www.dhlanalytical.com)  
 Email: [login@dhlanalytical.com](mailto:login@dhlanalytical.com)

# CHAIN-OF-CUSTODY

CLIENT: <u>Terracom</u>	LABORATORY USE ONLY DHL WORKORDER #: <u>2209090</u>
ADDRESS: <u>1901 Handley Ederville Rd, FTW, TX</u>	
PHONE: <u>817-268-8608</u> EMAIL: <u>kyle.lindquist@terracom</u>	PO#: _____
DATA REPORTED TO: <u>Kyle Lindquist</u>	PROJECT LOCATION OR NAME: <u>Rosedale</u>
ADDITIONAL REPORT COPIES TO: _____	CLIENT PROJECT # <u>95207647 Task 3.6</u> COLLECTOR: _____

<b>Authorize 5% surcharge for TRRP report?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Lab Use Only</b> W=WATER SE=SEDIMENT L=LIQUID P=PAINT S=SOIL SL=SLUDGE SO=SOLID	<b>PRESERVATION</b> HCL _____ HNO <sub>3</sub> _____ H <sub>2</sub> SO <sub>4</sub> _____ NaOH <input type="checkbox"/> Zn Acetate <input type="checkbox"/> ICS <input checked="" type="checkbox"/> UNPRESERVED <input type="checkbox"/>	<b>ANALYSES</b> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> [METHOD 8260] TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> HOLD 1006 <input type="checkbox"/> GRO 8015 <input type="checkbox"/> DRO 8015 <input type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> VOC 624.1 <input type="checkbox"/> SVOC 8270 <input type="checkbox"/> SVOC 625.1 <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLD PAH <input type="checkbox"/> PEST 8270 <input type="checkbox"/> 625.1 <input type="checkbox"/> O-P PEST 8270 <input type="checkbox"/> PCB 8082 <input type="checkbox"/> 608.3 <input type="checkbox"/> PCB 8270 <input type="checkbox"/> 625.1 <input type="checkbox"/> HERB 8321 <input type="checkbox"/> T PHOS <input type="checkbox"/> AMMONIA <input type="checkbox"/> METALS 6020 <input type="checkbox"/> 200.8 <input type="checkbox"/> DISS. METALS <input type="checkbox"/> RCRA 8 <input type="checkbox"/> TX-11 <input type="checkbox"/> PH <input type="checkbox"/> HEX CHROMIUM ALKALINITY <input type="checkbox"/> COD <input type="checkbox"/> ANIONS 300 <input type="checkbox"/> 9056 <input type="checkbox"/> TCLP-SVOC <input type="checkbox"/> VOC <input type="checkbox"/> PEST <input type="checkbox"/> HERB <input type="checkbox"/> TCLP-METALS <input type="checkbox"/> RCRA 8 <input type="checkbox"/> TX-11 <input type="checkbox"/> Pb <input type="checkbox"/> RCI <input type="checkbox"/> IGN <input type="checkbox"/> DGAS <input type="checkbox"/> OIL & GREASE <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOIST <input type="checkbox"/> CYANIDE <input type="checkbox"/> Total LEAD _____ Hold _____				
Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	FIELD NOTES

Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	FIELD NOTES
MW-1 0-1	01	9/12/22	1254	S			
↓	1-2		1254				
	2-3		1254				
↓	5-7		1257				
↓	17-19		1306				
DUP-MW-1 5-7	06		1257				
MW-2 0-1	07		1333				
↓	1-2		1333				
	2-3		1333				
↓	5-7		1333				
↓	15-16		1345				
SB-1 0-1	12		1130				
↓	1-2		1130				
↓	2-3		1130				
SB-2 0-1	15		1111				
↓	1-2		1111				

Relinquished By: (Sign) _____ DATE/TIME <u>9/12/22 1600</u>	Received by: <u>Fedex</u>	<b>TURN AROUND TIME (CALL FIRST FOR RUSH)</b> RUSH-1 DAY <input type="checkbox"/> RUSH-2 DAY <input type="checkbox"/> RUSH-3 DAY <input type="checkbox"/> NORMAL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> DUE DATE _____	<b>LABORATORY USE ONLY</b> RECEIVING TEMP (°C): <u>3.6°C, 1.4°C</u> THERM #: <u>78</u> CUSTODY SEALS: <input type="checkbox"/> BROKEN <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER: <input type="checkbox"/> LSO <input checked="" type="checkbox"/> FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> COURIER <input type="checkbox"/> OTHER <input type="checkbox"/> HAND DELIVERED
Relinquished By: (Sign) <u>Fedex</u> DATE/TIME <u>9/13/22 0837</u>	Received by: <u>Kyle Lindquist</u>		
Relinquished By: (Sign) _____ DATE/TIME _____	Received by: _____		





2300 Double Creek Dr. Round Rock, TX 78664

Phone 512.388.8222

Web: www.dhlanalytical.com

Email: login@dhlanalytical.com

# CHAIN-OF-CUSTODY

PAGE 3 OF 4

CLIENT: <u>TerraCom</u>	LABORATORY USE ONLY DHL WORKORDER #: <u>2209090</u>
ADDRESS: <u>1901 Handley Edenville Rd, FTW, TX</u>	
PHONE: <u>817 268 8600</u> EMAIL: <u>Kyle.Lindquist@terra.com</u>	PO#: _____
DATA REPORTED TO: <u>Kyle Lindquist</u>	PROJECT LOCATION OR NAME: <u>Rosedale</u>
ADDITIONAL REPORT COPIES TO: _____	CLIENT PROJECT # <u>95207647 Task 3.6</u> COLLECTOR: _____

Authorize 5% surcharge for TRRP report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	W=WATER    SE=SEDIMENT L=LIQUID    P=PAINT S=SOIL    SL=SLUDGE SO=SOLID	PRESERVATION HCL _____ HNO <sub>3</sub> _____ H <sub>2</sub> SO <sub>4</sub> _____ NaOH <input type="checkbox"/> Zn Acetate <input type="checkbox"/> ICE <input checked="" type="checkbox"/> UNPRESERVED <input type="checkbox"/>	ANALYSES BTX <input type="checkbox"/> MTBE <input type="checkbox"/> [METHOD 8260] TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> HOLD 1006 <input type="checkbox"/> GRO 8015 <input type="checkbox"/> DRO 8015 <input type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> VOC 624-1 <input type="checkbox"/> SVOC 8270 <input type="checkbox"/> SVOC 625-1 <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLD PAH <input type="checkbox"/> PEST 8270 <input type="checkbox"/> 625-1 <input type="checkbox"/> O-P PEST 8270 <input type="checkbox"/> PCB 8082 <input type="checkbox"/> 608-3 <input type="checkbox"/> PCB 8270 <input type="checkbox"/> 625-1 <input type="checkbox"/> HERB 8321 <input type="checkbox"/> T PHOS <input type="checkbox"/> AMMONIA <input type="checkbox"/> METALS 6020 <input type="checkbox"/> 200.8 <input type="checkbox"/> DISS. METALS <input type="checkbox"/> RCRA 8 <input type="checkbox"/> TX11 <input type="checkbox"/> pH <input type="checkbox"/> HEX CHROM <input type="checkbox"/> ALKALINITY <input type="checkbox"/> COD <input type="checkbox"/> ANIONS 300 <input type="checkbox"/> 9056 <input type="checkbox"/> TCLP-SVOC <input type="checkbox"/> VOC <input type="checkbox"/> PEST <input type="checkbox"/> HERB <input type="checkbox"/> TCLP-METALS <input type="checkbox"/> RCRA 8 <input type="checkbox"/> TX-11 <input type="checkbox"/> Pb <input type="checkbox"/> RCI <input type="checkbox"/> IGI <input type="checkbox"/> DGAS <input type="checkbox"/> OIL&GREASE <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOIST <input type="checkbox"/> CYANIDE <input type="checkbox"/> Total LEAD _____ Hold _____
Field Sample I.D.	Lab Use Only DHL Lab #    Collection Date    Collection Time    Matrix    Container Type	# of Containers	FIELD NOTES

Field Sample I.D.	Lab Use Only	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	ANALYSES	FIELD NOTES
SB-8 0-1	33	9/12/22	946						X
↓ 1-2	34								X
↓ 2-3	35								X
SB-9 0-1	36		940						X
↓ 1-2	37								X
↓ 2-3	38								X
SB-10 0-1	39		1034						X
↓ 1-2	40								X
↓ 2-3	41								X
SB-11 0-1	42		1026						X
↓ 1-2	43								X
↓ 2-3	44								X
SGP-1 0-1	45		1123						X
↓ 1-2	46								X
↓ 2-3	47								X
SGP-2 0-1	48		1103						X

Relinquished By: (Sign) _____	DATE/TIME <u>9/12/22 1600</u>	Received by: <u>Fedex</u>	<b>TURN AROUND TIME (CALL FIRST FOR RUSH)</b> RUSH-1 DAY <input type="checkbox"/> RUSH-2 DAY <input type="checkbox"/> RUSH-3 DAY <input type="checkbox"/> NORMAL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> DUE DATE _____	<b>LABORATORY USE ONLY</b> RECEIVING TEMP (°C): <u>36.0°C, 1.4°C</u> THERM #: <u>78</u> CUSTODY SEALS: <input type="checkbox"/> BROKEN <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER: <input type="checkbox"/> LSO <input checked="" type="checkbox"/> FEDEX <input type="checkbox"/> UPS <input type="checkbox"/> COURIER <input type="checkbox"/> OTHER <input type="checkbox"/> <input type="checkbox"/> HAND DELIVERED
Relinquished By: (Sign) <u>Fedex</u>	DATE/TIME <u>9/13/22 0837</u>	Received by: <u>Mad. O'Neil</u>		
Relinquished By: (Sign) _____	DATE/TIME _____	Received by: _____		

DHL DISPOSAL @ 5.00 each

Return

DHL COC REV 3 | MAR 2021





ORIGIN ID: MWLA 18175912831  
TOMERLIN, TRACY  
TERRACON CONSULTANTS INC.  
1801 HANDLEY EDERVILLE ROAD

SHIP DATE: 12SEP22  
ACTWGT: 50.00 LB  
CAD: 250518926/W/SX13600  
DIMS: 26x14x14 IN

FORT WORTH, TX 76118  
UNITED STATES US

BILL SENDER

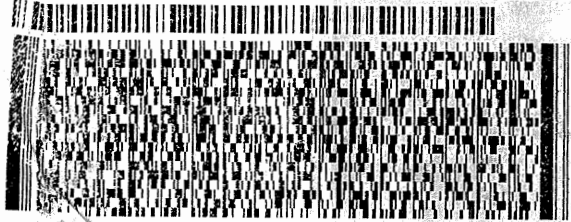
TO JOHN DUPONT  
DHL ANALYTICAL, INC.  
2300 DOUBLE CREEK DR

ROUND ROCK TX 78664

(2) 388-8222

REF: 95207647\_3.6

DEPT



FedEx  
Express



581J1EC6CFE2D

1 of 2

TRK#  
0201

2778 8258 4428

## MASTER ##

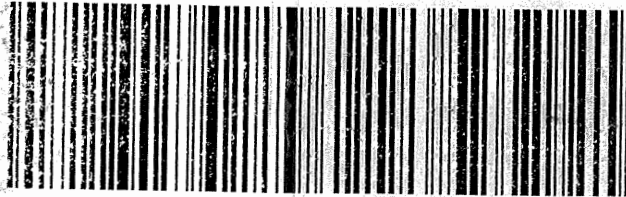
**A8 BSMA**

TUE - 13 SEP 10:30A

PRIORITY OVERNIGHT

78664

TX-US AUS



**CUSTODY SEAL**



DATE

9/12/22

SIGNATURE

*[Handwritten Signature]*

ORIGIN ID: MWLA 18175912831  
TOMERLIN, TRACY  
TERRACON CONSULTANTS INC.  
1801 HANDLEY EDERVILLE ROAD

SHIP DATE: 12SEP22  
ACTWGT: 50.00 LB  
CAD: 250518926/WSX13600  
DIMS: 26x14x14 IN

FORT WORTH, TX 76118  
UNITED STATES US

BILL SENDER

TO JOHN DUPONT  
DHL ANALYTICAL, INC.  
2300 DOUBLE CREEK DR

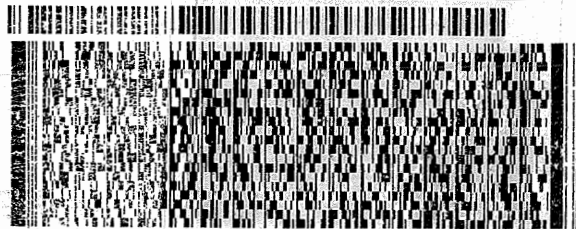
ROUND ROCK TX 78664

(512) 388-8222

REF: 95207647\_3.6

INV.

DEPT.



581JT/EC080FE20

TUE - 13 SEP 10:30A  
PRIORITY OVERNIGHT

2 of 2  
MPS# 2778 8258 5940  
0263  
Mstr# 2778 8258 4428

0201

A8 BSMA

78664  
TX-US AUS



CUSTODY SEAL

DATE 9/12/22

SIGNATURE



Sample Receipt Checklist

Client Name Terracon

Date Received: 9/13/2022

Work Order Number 2209090

Received by: KAO

Checklist completed by: [Signature] 9/13/2022  
Signature Date

Reviewed by: SW 9/13/2022  
Initials Date

Carrier name: FedEx 1day

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No  3.6 °C / 1.4 °C
- Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted  NA
- Water - pH<2 acceptable upon receipt? Yes  No  NA  LOT #  
Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_
- Water - pH>9 (S) or pH>10 (CN) acceptable upon receipt? Yes  No  NA  LOT #  
Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Any No response must be detailed in the comments section below.

Client contacted: \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

<b>Laboratory Name: DHL Analytical, Inc.</b>							
<b>Laboratory Review Checklist: Reportable Data</b>							
Project Name: Rosedale				LRC Date: 9/30/22			
Reviewer Name: Carlos Castro				Laboratory Work Order: 2209090			
Prep Batch Number(s): See Prep Dates Report				Run Batch: See Analytical Dates Report			
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
		<b>Chain-of-Custody (C-O-C)</b>					
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				R1-01
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	<b>Sample and Quality Control (QC) Identification</b>					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test Reports</b>					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample detection limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Were % moisture (or solids) reported for all soil and sediment samples?	X				
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035?		X			R3-08
		9) If required for the project, TICs reported?			X		
R4	O	<b>Surrogate Recovery Data</b>					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	<b>Test Reports/Summary Forms for Blank Samples</b>					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MDL?		X			R5-04
		5) For analyte(s) detected in a blank sample, was the concentration, unadjusted for sample specific factors, in all associated field samples, <b>greater</b> than 10 times the concentration in the blank sample?		X			R5-05
R6	OI	<b>Laboratory Control Samples (LCS):</b>					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			R6-04
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data</b>					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R7-03
		4) Were MS/MSD RPDs within laboratory QC limits?		X			R7-04
R8	OI	<b>Analytical Duplicate Data</b>					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	<b>Method Quantitation Limits (MQLs):</b>					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	<b>Other Problems/Anomalies</b>					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				R10-01
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

<b>Laboratory Name: DHL Analytical, Inc.</b>							
<b>Laboratory Review Checklist (continued): Supporting Data</b>							
Project Name: Rosedale			LRC Date: 9/30/22				
Reviewer Name: Carlos Castro			Laboratory Work Order: 2209090				
Prep Batch Number(s): See Prep Dates Report			Run Batch: See Analytical Dates Report				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	<b>Initial Calibration (ICAL)</b>					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):</b>					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?		X			S2-02
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	<b>Mass Spectral Tuning:</b>					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	O	<b>Internal Standards (IS):</b>					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	<b>Raw Data (NELAC Section 5.5.10)</b>					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual Column Confirmation</b>					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	<b>Tentatively Identified Compounds (TICs):</b>					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) Results:</b>					
		1) Were percent recoveries within method QC limits?	X				
S9	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	<b>Method Detection Limit (MDL) Studies</b>					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	<b>Proficiency Test Reports:</b>					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards Documentation</b>					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	<b>Compound/Analyte Identification Procedures</b>					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>					
		1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/Validation Documentation for Methods (NELAC Chapter 5)</b>					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs):</b>					
		1) Are laboratory SOPs current and on file for each method performed?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).



# Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC Chapter 5,
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory is not accredited under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on February 23-26 2021. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name: John DuPont  
Official Title: General Manager

\_\_\_\_\_  
Signature

10/10/22  
\_\_\_\_\_  
Date

Name: Dr. Derhsing Luu  
Official Title: Technical Director

**CLIENT:** Terracon  
**Project:** Rosedale  
**Lab Order:** 2209090

**CASE NARRATIVE**

The samples were analyzed using the methods outlined in the following references:

Method TX1005 - Total Petroleum Hydrocarbons Analysis  
Method SW8260D - Volatile Organics Analysis (soil & water) (the compound Cyclohexane is not NELAP Certified)  
Method SW6020B - Metals Analysis  
Method D2216 - Percent Moisture Analysis

**Exception Report R1-01**

The samples were received and log in performed on 9/13/22. A total of 56 samples were received. For further login notes please refer to the Chain-of-Custody. The samples arrived in good condition and were properly packaged.

**Exception Report R3-08**

This exception is applicable to samples MW-1 17-19 and MW-2 15-16. All other samples for the Volatiles and TPH analyses were collected using the 5035 method.

As per the TCEQ-NELAP accreditation requirement the following must be noted: As of January 1, 2016, the TCEQ remediation division guidance on the collection of soil for VOC analysis requires the use of Method 5035 and will reject VOC data reported for soil samples collected and prepared using another method; this applies to remediation testing only. For analyses reported to TCEQ for waste characterization, TCLP testing or matrices other than soil, bulk sampling is allowed. For analyses reported to the Texas Railroad Commission, bulk sampling is allowed. NELAP requires a note that if 5035 sampling method for VOCs is not utilized, the results of samples collected in bulk containers for low level volatile components may be compromised. The client has been notified and has requested the Laboratory to proceed with analysis.

As per the TCEQ-NELAP accreditation requirement the following must be noted: For TX1005 analyses of soils, the samples were collected in 8 ounce jars. This is allowed in Method TX1005 and by regulatory agencies for specific situations. For analyses reported to the Texas Railroad Commission, bulk sampling is allowed. For analyses reported for the TCEQ PST program, for waste classification, or for remediation project where process knowledge can document that C6-C12 hydrocarbons are not present, then Method 1005 allows for bulk sampling. NELAP requires a note that if 5035 sampling method for TX1005 is not utilized and none of the exceptions are applicable, the results of samples collected in bulk containers for C6-C12 hydrocarbon components may be compromised. The client has been notified and has requested the Laboratory to proceed with analysis.

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**CLIENT:** Terracon  
**Project:** Rosedale  
**Lab Order:** 2209090

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**CASE NARRATIVE**

Exception Report R5-04

For Volatiles analysis performed on 9/22/22 (batch 107106) Toluene was detected below the reporting limit in the method blank (MB-107106)

Exception Report R5-05

For Volatiles analysis performed on 9/22/22 (batch 107106) the associated samples were below detection limits for Toluene. No further corrective actions were taken.

Exception Report R6-04

For Volatiles analysis performed on 9/13/22 and 9/14/22 (batches 107009 & 107035) the LCS recoveries were out of control limits for up to three compounds. These are flagged accordingly. No further corrective actions were taken.

Exception Report R7-03 and R7-04

For Volatiles analysis performed on 9/14/22 (batch 107035) the matrix spike duplicate recovery was slightly below control limits for five compounds. In addition, the matrix spike and matrix spike duplicate (batch 107035) had the RPD slightly above control limits for Naphthalene. These are flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these compounds. No further corrective actions were taken.

For Volatiles analysis performed on 9/22/22 (batch 107106) the matrix spike and matrix spike duplicate recoveries were out of control limits for twenty compounds. This was due to matrix interference. These are flagged accordingly. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these compounds. No further corrective actions were taken.

For Metals analysis performed on 9/29/22 (batch 107168) the matrix spike nad matrix spike duplicate recoveries were above control limits for Lead. These are flagged accordingly. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for this analyte. No further corrective actions were taken.

Exception Report R10-01

Per project specification, MS/MSDs are from workorder or project samples only.

Exception Report S2-02

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**CLIENT:** Terracon  
**Project:** Rosedale  
**Lab Order:** 2209090

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**CASE NARRATIVE**

For Volatiles analysis performed on 9/14/22 the recoveries of four compounds for the Initial Calibration Verification (ICV-220914) were below the method control limits specified in SW8260D (70-130% recovery). These are flagged accordingly in the QC summary report. The number of target compounds outside of the method control limits for the ICV are less than 20% of the total number of compounds being reported; this is allowed in SW8260D specifications. These compounds were within method control limits in the associated LCS. No further corrective actions were taken.

**CLIENT:** Terracon  
**Project:** Rosedale  
**Lab Order:** 2209090

**Work Order Sample Summary**

<b>Lab Smp ID</b>	<b>Client Sample ID</b>	<b>Tag Number</b>	<b>Date Collected</b>	<b>Date Recved</b>
2209090-01	MW-1 0-1		09/12/22 12:54 PM	9/13/2022
2209090-02	MW-1 1-2		09/12/22 12:54 PM	9/13/2022
2209090-03	MW-1 2-3		09/12/22 12:54 PM	9/13/2022
2209090-04	MW-1 5-7		09/12/22 12:57 PM	9/13/2022
2209090-05	MW-1 17-19		09/12/22 01:06 PM	9/13/2022
2209090-06	Dup-MW-1 5-7		09/12/22 12:57 PM	9/13/2022
2209090-07	MW-2 0-1		09/12/22 01:33 PM	9/13/2022
2209090-08	MW-2 1-2		09/12/22 01:33 PM	9/13/2022
2209090-09	MW-2 2-3		09/12/22 01:33 PM	9/13/2022
2209090-10	MW-2 5-7		09/12/22 01:33 PM	9/13/2022
2209090-11	MW-2 15-16		09/12/22 01:45 PM	9/13/2022
2209090-12	SB-1 0-1		09/12/22 11:30 AM	9/13/2022
2209090-13	SB-1 1-2		09/12/22 11:30 AM	9/13/2022
2209090-14	SB-1 2-3		09/12/22 11:30 AM	9/13/2022
2209090-15	SB-2 0-1		09/12/22 11:11 AM	9/13/2022
2209090-16	SB-2 1-2		09/12/22 11:11 AM	9/13/2022
2209090-17	SB-2 2-3		09/12/22 11:11 AM	9/13/2022
2209090-18	SB-3 0-1		09/12/22 10:56 AM	9/13/2022
2209090-19	SB-3 1-2		09/12/22 10:56 AM	9/13/2022
2209090-20	SB-3 2-3		09/12/22 10:56 AM	9/13/2022
2209090-21	SB-4 0-1		09/12/22 09:21 AM	9/13/2022
2209090-22	SB-4 1-2		09/12/22 09:21 AM	9/13/2022
2209090-23	SB-4 2-3		09/12/22 09:21 AM	9/13/2022
2209090-24	SB-5 0-1		09/12/22 09:14 AM	9/13/2022
2209090-25	SB-5 1-2		09/12/22 09:14 AM	9/13/2022
2209090-26	SB-5 2-3		09/12/22 09:14 AM	9/13/2022
2209090-27	SB-6 0-1		09/12/22 09:28 AM	9/13/2022
2209090-28	SB-6 1-2		09/12/22 09:28 AM	9/13/2022
2209090-29	SB-6 2-3		09/12/22 09:28 AM	9/13/2022
2209090-30	SB-7 0-1		09/12/22 09:54 AM	9/13/2022
2209090-31	SB-7 1-2		09/12/22 09:54 AM	9/13/2022
2209090-32	SB-7 2-3		09/12/22 09:54 AM	9/13/2022
2209090-33	SB-8 0-1		09/12/22 09:46 AM	9/13/2022
2209090-34	SB-8 1-2		09/12/22 09:46 AM	9/13/2022
2209090-35	SB-8 2-3		09/12/22 09:46 AM	9/13/2022
2209090-36	SB-9 0-1		09/12/22 09:40 AM	9/13/2022
2209090-37	SB-9 1-2		09/12/22 09:40 AM	9/13/2022
2209090-38	SB-9 2-3		09/12/22 09:40 AM	9/13/2022

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**CLIENT:** Terracon  
**Project:** Rosedale  
**Lab Order:** 2209090

## Work Order Sample Summary

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Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2209090-39	SB-10 0-1		09/12/22 10:34 AM	9/13/2022
2209090-40	SB-10 1-2		09/12/22 10:34 AM	9/13/2022
2209090-41	SB-10 2-3		09/12/22 10:34 AM	9/13/2022
2209090-42	SB-11 0-1		09/12/22 10:26 AM	9/13/2022
2209090-43	SB-11 1-2		09/12/22 10:26 AM	9/13/2022
2209090-44	SB-11 2-3		09/12/22 10:26 AM	9/13/2022
2209090-45	SGP-1 0-1		09/12/22 11:23 AM	9/13/2022
2209090-46	SGP-1 1-2		09/12/22 11:23 AM	9/13/2022
2209090-47	SGP-1 2-3		09/12/22 11:23 AM	9/13/2022
2209090-48	SGP-2 0-1		09/12/22 11:03 AM	9/13/2022
2209090-49	SGP-2 1-2		09/12/22 11:03 AM	9/13/2022
2209090-50	SGP-2 2-3		09/12/22 11:03 AM	9/13/2022
2209090-51	SGP-5 3-5		09/12/22 08:47 AM	9/13/2022
2209090-52	SGP-6 1-3		09/12/22 08:42 AM	9/13/2022
2209090-53	TB-1		09/12/22	9/13/2022
2209090-54	TB-2		09/12/22	9/13/2022
2209090-55	Dup-SGP-1 0-1		09/12/22 11:23 AM	9/13/2022
2209090-56	Dup-SB-2 0-1		09/12/22 11:11 AM	9/13/2022



Lab Order: 2209090  
 Client: Terracon  
 Project: Rosedale

**PREP DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2209090-01A	MW-1 0-1	09/12/22 12:54 PM	Soil	D2216	Moisture Preparation	09/13/22 02:58 PM	107020
	MW-1 0-1	09/12/22 12:54 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-04A	MW-1 5-7	09/12/22 12:57 PM	Soil	SW5035A	Purge and Trap 5035	09/14/22 11:10 AM	107035
2209090-04B	MW-1 5-7	09/12/22 12:57 PM	Soil	TX1005	TX1005 Soil Prep	09/15/22 12:38 PM	107049
2209090-04C	MW-1 5-7	09/12/22 12:57 PM	Soil	D2216	Moisture Preparation	09/13/22 02:58 PM	107020
2209090-05A	MW-1 17-19	09/12/22 01:06 PM	Soil	D2216	Moisture Preparation	09/23/22 04:00 PM	107123
	MW-1 17-19	09/12/22 01:06 PM	Soil	SW5030C	Purge and Trap Soils GC/MS	09/22/22 10:14 AM	107106
	MW-1 17-19	09/12/22 01:06 PM	Soil	TX1005	TX1005 Soil Prep	09/23/22 08:22 AM	107114
2209090-06A	Dup-MW-1 5-7	09/12/22 12:57 PM	Soil	SW5035A	Purge and Trap 5035	09/14/22 11:10 AM	107035
2209090-06B	Dup-MW-1 5-7	09/12/22 12:57 PM	Soil	TX1005	TX1005 Soil Prep	09/15/22 12:38 PM	107049
2209090-06C	Dup-MW-1 5-7	09/12/22 12:57 PM	Soil	D2216	Moisture Preparation	09/13/22 02:58 PM	107020
2209090-07A	MW-2 0-1	09/12/22 01:33 PM	Soil	D2216	Moisture Preparation	09/13/22 02:58 PM	107020
	MW-2 0-1	09/12/22 01:33 PM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-10A	MW-2 5-7	09/12/22 01:33 PM	Soil	SW5035A	Purge and Trap 5035	09/14/22 11:10 AM	107035
2209090-10B	MW-2 5-7	09/12/22 01:33 PM	Soil	TX1005	TX1005 Soil Prep	09/15/22 12:38 PM	107049
2209090-10C	MW-2 5-7	09/12/22 01:33 PM	Soil	D2216	Moisture Preparation	09/13/22 02:58 PM	107020
2209090-11A	MW-2 15-16	09/12/22 01:45 PM	Soil	D2216	Moisture Preparation	09/23/22 04:00 PM	107123
	MW-2 15-16	09/12/22 01:45 PM	Soil	SW5030C	Purge and Trap Soils GC/MS	09/22/22 10:14 AM	107106
	MW-2 15-16	09/12/22 01:45 PM	Soil	TX1005	TX1005 Soil Prep	09/23/22 08:22 AM	107114
2209090-12A	SB-1 0-1	09/12/22 11:30 AM	Soil	D2216	Moisture Preparation	09/13/22 02:58 PM	107020
	SB-1 0-1	09/12/22 11:30 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-15A	SB-2 0-1	09/12/22 11:11 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-2 0-1	09/12/22 11:11 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-18A	SB-3 0-1	09/12/22 10:56 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-3 0-1	09/12/22 10:56 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-21A	SB-4 0-1	09/12/22 09:21 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-4 0-1	09/12/22 09:21 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-24A	SB-5 0-1	09/12/22 09:14 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021

**Lab Order:** 2209090  
**Client:** Terracon  
**Project:** Rosedale

**PREP DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2209090-24A	SB-5 0-1	09/12/22 09:14 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-25A	SB-5 1-2	09/12/22 09:14 AM	Soil	D2216	Moisture Preparation	09/23/22 04:00 PM	107123
	SB-5 1-2	09/12/22 09:14 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/28/22 10:23 AM	107168
2209090-27A	SB-6 0-1	09/12/22 09:28 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-6 0-1	09/12/22 09:28 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-30A	SB-7 0-1	09/12/22 09:54 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-7 0-1	09/12/22 09:54 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-33A	SB-8 0-1	09/12/22 09:46 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-8 0-1	09/12/22 09:46 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/14/22 09:55 AM	107032
2209090-36A	SB-9 0-1	09/12/22 09:40 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-9 0-1	09/12/22 09:40 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/16/22 09:26 AM	107053
2209090-37A	SB-9 1-2	09/12/22 09:40 AM	Soil	D2216	Moisture Preparation	09/23/22 04:00 PM	107123
	SB-9 1-2	09/12/22 09:40 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/28/22 10:23 AM	107168
2209090-39A	SB-10 0-1	09/12/22 10:34 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-10 0-1	09/12/22 10:34 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/16/22 09:26 AM	107053
2209090-42A	SB-11 0-1	09/12/22 10:26 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SB-11 0-1	09/12/22 10:26 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/16/22 09:26 AM	107053
2209090-45A	SGP-1 0-1	09/12/22 11:23 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SGP-1 0-1	09/12/22 11:23 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/16/22 09:26 AM	107053
2209090-48A	SGP-2 0-1	09/12/22 11:03 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	SGP-2 0-1	09/12/22 11:03 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/16/22 09:26 AM	107053
2209090-49A	SGP-2 1-2	09/12/22 11:03 AM	Soil	D2216	Moisture Preparation	09/23/22 04:00 PM	107123
	SGP-2 1-2	09/12/22 11:03 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/28/22 10:23 AM	107168
2209090-51A	SGP-5 3-5	09/12/22 08:47 AM	Soil	SW5035A	Purge and Trap 5035	09/14/22 11:10 AM	107035
2209090-51B	SGP-5 3-5	09/12/22 08:47 AM	Soil	TX1005	TX1005 Soil Prep	09/15/22 12:38 PM	107049
2209090-51C	SGP-5 3-5	09/12/22 08:47 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
2209090-52A	SGP-6 1-3	09/12/22 08:42 AM	Soil	SW5035A	Purge and Trap 5035	09/14/22 11:10 AM	107035
2209090-52B	SGP-6 1-3	09/12/22 08:42 AM	Soil	TX1005	TX1005 Soil Prep	09/15/22 12:38 PM	107049

**Lab Order:** 2209090  
**Client:** Terracon  
**Project:** Rosedale

**PREP DATES REPORT**

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2209090-52C	SGP-6 1-3	09/12/22 08:42 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
2209090-53A	TB-1	09/12/22	Trip Blank	SW5030C	Purge and Trap Water GC/MS	09/13/22 08:54 AM	107009
2209090-54A	TB-2	09/12/22	Trip Blank	SW5030C	Purge and Trap Water GC/MS	09/13/22 08:54 AM	107009
2209090-55A	Dup-SGP-1 0-1	09/12/22 11:23 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	Dup-SGP-1 0-1	09/12/22 11:23 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/16/22 09:26 AM	107053
2209090-56A	Dup-SB-2 0-1	09/12/22 11:11 AM	Soil	D2216	Moisture Preparation	09/13/22 03:46 PM	107021
	Dup-SB-2 0-1	09/12/22 11:11 AM	Soil	SW3050B	Soil Prep Total Metals: ICP-MS	09/16/22 09:26 AM	107053

Lab Order: 2209090  
 Client: Terracon  
 Project: Rosedale

**ANALYTICAL DATES REPORT**

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2209090-01A	MW-1 0-1	Soil	D2216	Percent Moisture	107020	1	09/14/22 09:15 AM	PMOIST_220913A
	MW-1 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 02:55 PM	ICP-MS5_220915A
2209090-04A	MW-1 5-7	Soil	SW8260D	Volatiles by 8260/5035 GC/MS	107035	1	09/14/22 06:31 PM	GCMS2_220914A
2209090-04B	MW-1 5-7	Soil	TX1005	Tx1005 TPH Soil	107049	1	09/16/22 10:58 AM	GC12_220916A
2209090-04C	MW-1 5-7	Soil	D2216	Percent Moisture	107020	1	09/14/22 09:15 AM	PMOIST_220913A
2209090-05A	MW-1 17-19	Soil	SW8260D	8260 Volatiles by GC/MS	107106	1	09/22/22 02:22 PM	GCMS1_220922A
	MW-1 17-19	Soil	D2216	Percent Moisture	107123	1	09/26/22 09:15 AM	PMOIST_220923A
	MW-1 17-19	Soil	TX1005	Tx1005 TPH Soil	107114	1	09/23/22 12:18 PM	GC12_220923A
2209090-06A	Dup-MW-1 5-7	Soil	SW8260D	Volatiles by 8260/5035 GC/MS	107035	1	09/14/22 06:59 PM	GCMS2_220914A
2209090-06B	Dup-MW-1 5-7	Soil	TX1005	Tx1005 TPH Soil	107049	1	09/16/22 11:07 AM	GC12_220916A
2209090-06C	Dup-MW-1 5-7	Soil	D2216	Percent Moisture	107020	1	09/14/22 09:15 AM	PMOIST_220913A
2209090-07A	MW-2 0-1	Soil	D2216	Percent Moisture	107020	1	09/14/22 09:15 AM	PMOIST_220913A
	MW-2 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 02:57 PM	ICP-MS5_220915A
2209090-10A	MW-2 5-7	Soil	SW8260D	Volatiles by 8260/5035 GC/MS	107035	1	09/14/22 07:27 PM	GCMS2_220914A
2209090-10B	MW-2 5-7	Soil	TX1005	Tx1005 TPH Soil	107049	1	09/16/22 11:16 AM	GC12_220916A
2209090-10C	MW-2 5-7	Soil	D2216	Percent Moisture	107020	1	09/14/22 09:15 AM	PMOIST_220913A
2209090-11A	MW-2 15-16	Soil	SW8260D	8260 Volatiles by GC/MS	107106	1	09/22/22 02:50 PM	GCMS1_220922A
	MW-2 15-16	Soil	D2216	Percent Moisture	107123	1	09/26/22 09:15 AM	PMOIST_220923A
	MW-2 15-16	Soil	TX1005	Tx1005 TPH Soil	107114	1	09/23/22 12:27 PM	GC12_220923A
2209090-12A	SB-1 0-1	Soil	D2216	Percent Moisture	107020	1	09/14/22 09:15 AM	PMOIST_220913A
	SB-1 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 03:00 PM	ICP-MS5_220915A
2209090-15A	SB-2 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-2 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 03:02 PM	ICP-MS5_220915A
2209090-18A	SB-3 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-3 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 03:05 PM	ICP-MS5_220915A
2209090-21A	SB-4 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-4 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 03:08 PM	ICP-MS5_220915A
2209090-24A	SB-5 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B

Lab Order: 2209090  
 Client: Terracon  
 Project: Rosedale

**ANALYTICAL DATES REPORT**

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2209090-24A	SB-5 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 03:10 PM	ICP-MS5_220915A
2209090-25A	SB-5 1-2	Soil	D2216	Percent Moisture	107123	1	09/26/22 09:15 AM	PMOIST_220923A
	SB-5 1-2	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107168	5	09/29/22 11:38 AM	ICP-MS5_220929B
2209090-27A	SB-6 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-6 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 03:13 PM	ICP-MS5_220915A
2209090-30A	SB-7 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-7 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 03:15 PM	ICP-MS5_220915A
2209090-33A	SB-8 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-8 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107032	5	09/15/22 02:12 PM	ICP-MS5_220915A
2209090-36A	SB-9 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-9 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107053	5	09/19/22 10:51 AM	ICP-MS5_220919A
2209090-37A	SB-9 1-2	Soil	D2216	Percent Moisture	107123	1	09/26/22 09:15 AM	PMOIST_220923A
	SB-9 1-2	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107168	5	09/29/22 11:41 AM	ICP-MS5_220929B
2209090-39A	SB-10 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-10 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107053	5	09/19/22 10:54 AM	ICP-MS5_220919A
2209090-42A	SB-11 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SB-11 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107053	5	09/19/22 10:57 AM	ICP-MS5_220919A
2209090-45A	SGP-1 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SGP-1 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107053	5	09/19/22 10:59 AM	ICP-MS5_220919A
2209090-48A	SGP-2 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	SGP-2 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107053	5	09/19/22 11:17 AM	ICP-MS5_220919A
2209090-49A	SGP-2 1-2	Soil	D2216	Percent Moisture	107123	1	09/26/22 09:15 AM	PMOIST_220923A
	SGP-2 1-2	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107168	5	09/29/22 11:33 AM	ICP-MS5_220929B
2209090-51A	SGP-5 3-5	Soil	SW8260D	Volatiles by 8260/5035 GC/MS	107035	1	09/14/22 07:55 PM	GCMS2_220914A
2209090-51B	SGP-5 3-5	Soil	TX1005	Tx1005 TPH Soil	107049	1	09/16/22 11:43 AM	GC12_220916A
2209090-51C	SGP-5 3-5	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
2209090-52A	SGP-6 1-3	Soil	SW8260D	Volatiles by 8260/5035 GC/MS	107035	1	09/14/22 08:23 PM	GCMS2_220914A
2209090-52B	SGP-6 1-3	Soil	TX1005	Tx1005 TPH Soil	107049	1	09/16/22 11:52 AM	GC12_220916A

**Lab Order:** 2209090  
**Client:** Terracon  
**Project:** Rosedale

## ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2209090-52C	SGP-6 1-3	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
2209090-53A	TB-1	Trip Blank	SW8260D	8260 Water Volatiles by GC/MS	107009	1	09/13/22 12:20 PM	GCMS5_220913A
2209090-54A	TB-2	Trip Blank	SW8260D	8260 Water Volatiles by GC/MS	107009	1	09/13/22 12:46 PM	GCMS5_220913A
2209090-55A	Dup-SGP-1 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	Dup-SGP-1 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107053	5	09/19/22 11:19 AM	ICP-MS5_220919A
2209090-56A	Dup-SB-2 0-1	Soil	D2216	Percent Moisture	107021	1	09/14/22 09:15 AM	PMOIST_220913B
	Dup-SB-2 0-1	Soil	SW6020B	Trace Metals: ICP-MS - Solid	107053	5	09/19/22 11:22 AM	ICP-MS5_220919A



**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-1 0-1  
**Lab ID:** 2209090-01  
**Collection Date:** 09/12/22 12:54 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	74.4	0.121	0.364		mg/Kg-dry	5	09/15/22 02:55 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	19.2	0	0		WT%	1	09/14/22 09:15 AM

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N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-1 5-7  
**Lab ID:** 2209090-04  
**Collection Date:** 09/12/22 12:57 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TX1005 TPH SOIL</b>		<b>TX1005</b>			Analyst: <b>BTJ</b>		
T/R Hydrocarbons: C6-C12	<6.86	6.86	19.6		mg/Kg-dry	1	09/16/22 10:58 AM
T/R Hydrocarbons: >C12-C28	<6.86	6.86	19.6		mg/Kg-dry	1	09/16/22 10:58 AM
T/R Hydrocarbons: >C28-C35	<6.86	6.86	19.6		mg/Kg-dry	1	09/16/22 10:58 AM
T/R Hydrocarbons: C6-C35	<6.86	6.86	19.6		mg/Kg-dry	1	09/16/22 10:58 AM
Surr: Isopropylbenzene	76.2	0	70-130		%REC	1	09/16/22 10:58 AM
Surr: Octacosane	97.1	0	70-130		%REC	1	09/16/22 10:58 AM
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
1,1,1,2-Tetrachloroethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,1,1-Trichloroethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,1,2,2-Tetrachloroethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,1,2-Trichloroethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,1,2-Trichlorotrifluoroethane	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
1,1-Dichloroethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,1-Dichloroethene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,1-Dichloropropene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2,3-Trichlorobenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2,3-Trichloropropane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2,4-Trichlorobenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2,4-Trimethylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2-Dibromo-3-chloropropane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2-Dibromoethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2-Dichlorobenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2-Dichloroethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,2-Dichloropropane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,3,5-Trimethylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,3-Dichlorobenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,3-Dichloropropane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1,4-Dichlorobenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
1-Chlorohexane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
2,2-Dichloropropane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
2-Butanone	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
2-Chlorotoluene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
2-Hexanone	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
4-Chlorotoluene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
4-Methyl-2-pentanone	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
Acetone	<0.0134	0.0134	0.0445		mg/Kg-dry	1	09/14/22 06:31 PM
Benzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Bromobenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM

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 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-1 5-7  
**Lab ID:** 2209090-04  
**Collection Date:** 09/12/22 12:57 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Bromochloromethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Bromodichloromethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Bromoform	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Bromomethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Carbon disulfide	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
Carbon tetrachloride	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Chlorobenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Chloroethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Chloroform	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Chloromethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
cis-1,2-Dichloroethene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
cis-1,3-Dichloropropene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Cyclohexane	<0.00445	0.00445	0.0134	N	mg/Kg-dry	1	09/14/22 06:31 PM
Dibromochloromethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Dibromomethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Dichlorodifluoromethane	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Ethylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Hexachlorobutadiene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Isopropylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
m,p-Xylene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Methyl Acetate	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
Methyl tert-butyl ether	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Methylcyclohexane	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
Methylene chloride	<0.00445	0.00445	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Naphthalene	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
n-Butylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
n-Propylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
o-Xylene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
p-Isopropyltoluene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
sec-Butylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Styrene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
tert-Butylbenzene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Tetrachloroethene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Toluene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
trans-1,2-Dichloroethene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
trans-1,3-Dichloropropene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Trichloroethene	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Trichlorofluoromethane	<0.00445	0.00445	0.0134		mg/Kg-dry	1	09/14/22 06:31 PM
Vinyl chloride	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM

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 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-1 5-7  
**Lab ID:** 2209090-04  
**Collection Date:** 09/12/22 12:57 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Xylenes, Total	<0.000890	0.000890	0.00445		mg/Kg-dry	1	09/14/22 06:31 PM
Surr: 1,2-Dichloroethane-d4	100	0	52-149		%REC	1	09/14/22 06:31 PM
Surr: 4-Bromofluorobenzene	98.0	0	84-118		%REC	1	09/14/22 06:31 PM
Surr: Dibromofluoromethane	103	0	65-135		%REC	1	09/14/22 06:31 PM
Surr: Toluene-d8	92.7	0	84-116		%REC	1	09/14/22 06:31 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>			Analyst: <b>EAT</b>		
Percent Moisture	16.7	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: MW-1 17-19  
 Lab ID: 2209090-05  
 Collection Date: 09/12/22 01:06 PM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TX1005 TPH SOIL</b>		<b>TX1005</b>			Analyst: <b>BTJ</b>		
T/R Hydrocarbons: C6-C12	<7.82	7.82	22.3		mg/Kg-dry	1	09/23/22 12:18 PM
T/R Hydrocarbons: >C12-C28	<7.82	7.82	22.3		mg/Kg-dry	1	09/23/22 12:18 PM
T/R Hydrocarbons: >C28-C35	<7.82	7.82	22.3		mg/Kg-dry	1	09/23/22 12:18 PM
T/R Hydrocarbons: C6-C35	<7.82	7.82	22.3		mg/Kg-dry	1	09/23/22 12:18 PM
Surr: Isopropylbenzene	78.1	0	70-130		%REC	1	09/23/22 12:18 PM
Surr: Octacosane	99.4	0	70-130		%REC	1	09/23/22 12:18 PM
<b>8260 VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
1,1,1,2-Tetrachloroethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,1,1-Trichloroethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,1,2,2-Tetrachloroethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,1,2-Trichloroethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,1,2-Trichlorotrifluoroethane	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
1,1-Dichloroethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,1-Dichloroethene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,1-Dichloropropene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2,3-Trichlorobenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2,3-Trichloropropane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2,4-Trichlorobenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2,4-Trimethylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2-Dibromo-3-chloropropane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2-Dibromoethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2-Dichlorobenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2-Dichloroethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,2-Dichloropropane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,3,5-Trimethylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,3-Dichlorobenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,3-Dichloropropane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1,4-Dichlorobenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
1-Chlorohexane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
2,2-Dichloropropane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
2-Butanone	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
2-Chlorotoluene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
2-Hexanone	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
4-Chlorotoluene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
4-Methyl-2-pentanone	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
Acetone	<0.0165	0.0165	0.0550		mg/Kg-dry	1	09/22/22 02:22 PM
Benzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Bromobenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: MW-1 17-19  
 Lab ID: 2209090-05  
 Collection Date: 09/12/22 01:06 PM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Bromochloromethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Bromodichloromethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Bromoform	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Bromomethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Carbon disulfide	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
Carbon tetrachloride	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Chlorobenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Chloroethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Chloroform	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Chloromethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
cis-1,2-Dichloroethene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
cis-1,3-Dichloropropene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Cyclohexane	<0.00550	0.00550	0.0165	N	mg/Kg-dry	1	09/22/22 02:22 PM
Dibromochloromethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Dibromomethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Dichlorodifluoromethane	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Ethylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Hexachlorobutadiene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Isopropylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
m,p-Xylene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Methyl Acetate	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
Methyl tert-butyl ether	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Methylcyclohexane	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
Methylene chloride	<0.00550	0.00550	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Naphthalene	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
n-Butylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
n-Propylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
o-Xylene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
p-Isopropyltoluene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
sec-Butylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Styrene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
tert-Butylbenzene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Tetrachloroethene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Toluene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
trans-1,2-Dichloroethene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
trans-1,3-Dichloropropene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Trichloroethene	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Trichlorofluoromethane	<0.00550	0.00550	0.0165		mg/Kg-dry	1	09/22/22 02:22 PM
Vinyl chloride	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM

**Qualifiers:** ND - Not Detected at the SDL  
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 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-1 17-19  
**Lab ID:** 2209090-05  
**Collection Date:** 09/12/22 01:06 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Total Xylenes	<0.00110	0.00110	0.00550		mg/Kg-dry	1	09/22/22 02:22 PM
Surr: 1,2-Dichloroethane-d4	103	0	52-149		%REC	1	09/22/22 02:22 PM
Surr: 4-Bromofluorobenzene	104	0	84-118		%REC	1	09/22/22 02:22 PM
Surr: Dibromofluoromethane	103	0	65-135		%REC	1	09/22/22 02:22 PM
Surr: Toluene-d8	103	0	84-116		%REC	1	09/22/22 02:22 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>			Analyst: <b>EAT</b>		
Percent Moisture	16.2	0	0		WT%	1	09/26/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
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 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern



CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: Dup-MW-1 5-7  
 Lab ID: 2209090-06  
 Collection Date: 09/12/22 12:57 PM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TX1005 TPH SOIL</b>		<b>TX1005</b>			Analyst: <b>BTJ</b>		
T/R Hydrocarbons: C6-C12	<7.52	7.52	21.5		mg/Kg-dry	1	09/16/22 11:07 AM
T/R Hydrocarbons: >C12-C28	<7.52	7.52	21.5		mg/Kg-dry	1	09/16/22 11:07 AM
T/R Hydrocarbons: >C28-C35	<7.52	7.52	21.5		mg/Kg-dry	1	09/16/22 11:07 AM
T/R Hydrocarbons: C6-C35	<7.52	7.52	21.5		mg/Kg-dry	1	09/16/22 11:07 AM
Surr: Isopropylbenzene	75.5	0	70-130		%REC	1	09/16/22 11:07 AM
Surr: Octacosane	96.6	0	70-130		%REC	1	09/16/22 11:07 AM
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
1,1,1,2-Tetrachloroethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,1,1-Trichloroethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,1,2,2-Tetrachloroethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,1,2-Trichloroethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,1,2-Trichlorotrifluoroethane	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
1,1-Dichloroethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,1-Dichloroethene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,1-Dichloropropene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2,3-Trichlorobenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2,3-Trichloropropane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2,4-Trichlorobenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2,4-Trimethylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2-Dibromo-3-chloropropane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2-Dibromoethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2-Dichlorobenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2-Dichloroethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,2-Dichloropropane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,3,5-Trimethylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,3-Dichlorobenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,3-Dichloropropane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1,4-Dichlorobenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
1-Chlorohexane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
2,2-Dichloropropane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
2-Butanone	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
2-Chlorotoluene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
2-Hexanone	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
4-Chlorotoluene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
4-Methyl-2-pentanone	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
Acetone	<0.0143	0.0143	0.0476		mg/Kg-dry	1	09/14/22 06:59 PM
Benzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Bromobenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM

**Qualifiers:** ND - Not Detected at the SDL  
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 N - Parameter not NELAP certified  
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S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** Dup-MW-1 5-7  
**Lab ID:** 2209090-06  
**Collection Date:** 09/12/22 12:57 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Bromochloromethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Bromodichloromethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Bromoform	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Bromomethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Carbon disulfide	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
Carbon tetrachloride	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Chlorobenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Chloroethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Chloroform	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Chloromethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
cis-1,2-Dichloroethene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
cis-1,3-Dichloropropene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Cyclohexane	<0.00476	0.00476	0.0143	N	mg/Kg-dry	1	09/14/22 06:59 PM
Dibromochloromethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Dibromomethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Dichlorodifluoromethane	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Ethylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Hexachlorobutadiene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Isopropylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
m,p-Xylene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Methyl Acetate	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
Methyl tert-butyl ether	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Methylcyclohexane	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
Methylene chloride	0.00587	0.00476	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Naphthalene	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
n-Butylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
n-Propylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
o-Xylene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
p-Isopropyltoluene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
sec-Butylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Styrene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
tert-Butylbenzene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Tetrachloroethene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Toluene	0.000952	0.000952	0.00476	J	mg/Kg-dry	1	09/14/22 06:59 PM
trans-1,2-Dichloroethene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
trans-1,3-Dichloropropene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Trichloroethene	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Trichlorofluoromethane	<0.00476	0.00476	0.0143		mg/Kg-dry	1	09/14/22 06:59 PM
Vinyl chloride	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
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 DF- Dilution Factor  
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 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** Dup-MW-1 5-7  
**Lab ID:** 2209090-06  
**Collection Date:** 09/12/22 12:57 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Xylenes, Total	<0.000952	0.000952	0.00476		mg/Kg-dry	1	09/14/22 06:59 PM
Surr: 1,2-Dichloroethane-d4	96.0	0	52-149		%REC	1	09/14/22 06:59 PM
Surr: 4-Bromofluorobenzene	101	0	84-118		%REC	1	09/14/22 06:59 PM
Surr: Dibromofluoromethane	102	0	65-135		%REC	1	09/14/22 06:59 PM
Surr: Toluene-d8	91.0	0	84-116		%REC	1	09/14/22 06:59 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>			Analyst: <b>EAT</b>		
Percent Moisture	15.9	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-2 0-1  
**Lab ID:** 2209090-07  
**Collection Date:** 09/12/22 01:33 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	296	0.0995	0.298		mg/Kg-dry	5	09/15/22 02:57 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	14.8	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: MW-2 5-7  
 Lab ID: 2209090-10  
 Collection Date: 09/12/22 01:33 PM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TX1005 TPH SOIL</b>		<b>TX1005</b>			Analyst: <b>BTJ</b>		
T/R Hydrocarbons: C6-C12	<9.44	9.44	27.0		mg/Kg-dry	1	09/16/22 11:16 AM
T/R Hydrocarbons: >C12-C28	<9.44	9.44	27.0		mg/Kg-dry	1	09/16/22 11:16 AM
T/R Hydrocarbons: >C28-C35	<9.44	9.44	27.0		mg/Kg-dry	1	09/16/22 11:16 AM
T/R Hydrocarbons: C6-C35	<9.44	9.44	27.0		mg/Kg-dry	1	09/16/22 11:16 AM
Surr: Isopropylbenzene	76.3	0	70-130		%REC	1	09/16/22 11:16 AM
Surr: Octacosane	97.9	0	70-130		%REC	1	09/16/22 11:16 AM
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
1,1,1,2-Tetrachloroethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,1,1-Trichloroethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,1,2,2-Tetrachloroethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,1,2-Trichloroethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,1,2-Trichlorotrifluoroethane	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
1,1-Dichloroethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,1-Dichloroethene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,1-Dichloropropene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2,3-Trichlorobenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2,3-Trichloropropane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2,4-Trichlorobenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2,4-Trimethylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2-Dibromo-3-chloropropane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2-Dibromoethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2-Dichlorobenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2-Dichloroethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,2-Dichloropropane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,3,5-Trimethylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,3-Dichlorobenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,3-Dichloropropane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1,4-Dichlorobenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
1-Chlorohexane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
2,2-Dichloropropane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
2-Butanone	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
2-Chlorotoluene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
2-Hexanone	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
4-Chlorotoluene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
4-Methyl-2-pentanone	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
Acetone	<0.0167	0.0167	0.0556		mg/Kg-dry	1	09/14/22 07:27 PM
Benzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Bromobenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: MW-2 5-7  
 Lab ID: 2209090-10  
 Collection Date: 09/12/22 01:33 PM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Bromochloromethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Bromodichloromethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Bromoform	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Bromomethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Carbon disulfide	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
Carbon tetrachloride	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Chlorobenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Chloroethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Chloroform	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Chloromethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
cis-1,2-Dichloroethene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
cis-1,3-Dichloropropene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Cyclohexane	<0.00556	0.00556	0.0167	N	mg/Kg-dry	1	09/14/22 07:27 PM
Dibromochloromethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Dibromomethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Dichlorodifluoromethane	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Ethylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Hexachlorobutadiene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Isopropylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
m,p-Xylene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Methyl Acetate	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
Methyl tert-butyl ether	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Methylcyclohexane	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
Methylene chloride	0.00699	0.00556	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Naphthalene	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
n-Butylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
n-Propylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
o-Xylene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
p-Isopropyltoluene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
sec-Butylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Styrene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
tert-Butylbenzene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Tetrachloroethene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Toluene	0.00112	0.00111	0.00556	J	mg/Kg-dry	1	09/14/22 07:27 PM
trans-1,2-Dichloroethene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
trans-1,3-Dichloropropene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Trichloroethene	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Trichlorofluoromethane	<0.00556	0.00556	0.0167		mg/Kg-dry	1	09/14/22 07:27 PM
Vinyl chloride	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM

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**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-2 5-7  
**Lab ID:** 2209090-10  
**Collection Date:** 09/12/22 01:33 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Xylenes, Total	<0.00111	0.00111	0.00556		mg/Kg-dry	1	09/14/22 07:27 PM
Surr: 1,2-Dichloroethane-d4	98.3	0	52-149		%REC	1	09/14/22 07:27 PM
Surr: 4-Bromofluorobenzene	94.4	0	84-118		%REC	1	09/14/22 07:27 PM
Surr: Dibromofluoromethane	102	0	65-135		%REC	1	09/14/22 07:27 PM
Surr: Toluene-d8	95.5	0	84-116		%REC	1	09/14/22 07:27 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>			Analyst: <b>EAT</b>		
Percent Moisture	18.1	0	0		WT%	1	09/14/22 09:15 AM

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CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: MW-2 15-16  
 Lab ID: 2209090-11  
 Collection Date: 09/12/22 01:45 PM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TX1005 TPH SOIL</b>		<b>TX1005</b>			Analyst: <b>BTJ</b>		
T/R Hydrocarbons: C6-C12	<7.75	7.75	22.1		mg/Kg-dry	1	09/23/22 12:27 PM
T/R Hydrocarbons: >C12-C28	<7.75	7.75	22.1		mg/Kg-dry	1	09/23/22 12:27 PM
T/R Hydrocarbons: >C28-C35	<7.75	7.75	22.1		mg/Kg-dry	1	09/23/22 12:27 PM
T/R Hydrocarbons: C6-C35	<7.75	7.75	22.1		mg/Kg-dry	1	09/23/22 12:27 PM
Surr: Isopropylbenzene	76.8	0	70-130		%REC	1	09/23/22 12:27 PM
Surr: Octacosane	95.3	0	70-130		%REC	1	09/23/22 12:27 PM
<b>8260 VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
1,1,1,2-Tetrachloroethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,1,1-Trichloroethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,1,2,2-Tetrachloroethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,1,2-Trichloroethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,1,2-Trichlorotrifluoroethane	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
1,1-Dichloroethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,1-Dichloroethene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,1-Dichloropropene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2,3-Trichlorobenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2,3-Trichloropropane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2,4-Trichlorobenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2,4-Trimethylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2-Dibromo-3-chloropropane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2-Dibromoethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2-Dichlorobenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2-Dichloroethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,2-Dichloropropane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,3,5-Trimethylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,3-Dichlorobenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,3-Dichloropropane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1,4-Dichlorobenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
1-Chlorohexane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
2,2-Dichloropropane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
2-Butanone	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
2-Chlorotoluene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
2-Hexanone	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
4-Chlorotoluene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
4-Methyl-2-pentanone	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
Acetone	<0.0162	0.0162	0.0539		mg/Kg-dry	1	09/22/22 02:50 PM
Benzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Bromobenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM

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 E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-2 15-16  
**Lab ID:** 2209090-11  
**Collection Date:** 09/12/22 01:45 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Bromochloromethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Bromodichloromethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Bromoform	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Bromomethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Carbon disulfide	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
Carbon tetrachloride	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Chlorobenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Chloroethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Chloroform	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Chloromethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
cis-1,2-Dichloroethene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
cis-1,3-Dichloropropene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Cyclohexane	<0.00539	0.00539	0.0162	N	mg/Kg-dry	1	09/22/22 02:50 PM
Dibromochloromethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Dibromomethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Dichlorodifluoromethane	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Ethylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Hexachlorobutadiene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Isopropylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
m,p-Xylene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Methyl Acetate	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
Methyl tert-butyl ether	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Methylcyclohexane	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
Methylene chloride	<0.00539	0.00539	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Naphthalene	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
n-Butylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
n-Propylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
o-Xylene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
p-Isopropyltoluene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
sec-Butylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Styrene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
tert-Butylbenzene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Tetrachloroethene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Toluene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
trans-1,2-Dichloroethene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
trans-1,3-Dichloropropene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Trichloroethene	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Trichlorofluoromethane	<0.00539	0.00539	0.0162		mg/Kg-dry	1	09/22/22 02:50 PM
Vinyl chloride	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** MW-2 15-16  
**Lab ID:** 2209090-11  
**Collection Date:** 09/12/22 01:45 PM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Total Xylenes	<0.00108	0.00108	0.00539		mg/Kg-dry	1	09/22/22 02:50 PM
Surr: 1,2-Dichloroethane-d4	104	0	52-149		%REC	1	09/22/22 02:50 PM
Surr: 4-Bromofluorobenzene	102	0	84-118		%REC	1	09/22/22 02:50 PM
Surr: Dibromofluoromethane	104	0	65-135		%REC	1	09/22/22 02:50 PM
Surr: Toluene-d8	102	0	84-116		%REC	1	09/22/22 02:50 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>			Analyst: <b>EAT</b>		
Percent Moisture	14.3	0	0		WT%	1	09/26/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-1 0-1  
**Lab ID:** 2209090-12  
**Collection Date:** 09/12/22 11:30 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	44.3	0.112	0.336		mg/Kg-dry	5	09/15/22 03:00 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	19.6	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-2 0-1  
**Lab ID:** 2209090-15  
**Collection Date:** 09/12/22 11:11 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	46.2	0.105	0.315		mg/Kg-dry	5	09/15/22 03:02 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	17.1	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-3 0-1  
**Lab ID:** 2209090-18  
**Collection Date:** 09/12/22 10:56 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	13.8	0.101	0.303		mg/Kg-dry	5	09/15/22 03:05 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	17.5	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-4 0-1  
**Lab ID:** 2209090-21  
**Collection Date:** 09/12/22 09:21 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	13.6	0.115	0.345		mg/Kg-dry	5	09/15/22 03:08 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	15.5	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern



**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-5 0-1  
**Lab ID:** 2209090-24  
**Collection Date:** 09/12/22 09:14 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	440	0.113	0.338		mg/Kg-dry	5	09/15/22 03:10 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	16.2	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-5 1-2  
**Lab ID:** 2209090-25  
**Collection Date:** 09/12/22 09:14 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	19.4	0.122	0.366		mg/Kg-dry	5	09/29/22 11:38 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	20.4	0	0		WT%	1	09/26/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-6 0-1  
**Lab ID:** 2209090-27  
**Collection Date:** 09/12/22 09:28 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	290	0.0982	0.295		mg/Kg-dry	5	09/15/22 03:13 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	8.30	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-7 0-1  
**Lab ID:** 2209090-30  
**Collection Date:** 09/12/22 09:54 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	6.94	0.0962	0.288		mg/Kg-dry	5	09/15/22 03:15 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	2.81	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-8 0-1  
**Lab ID:** 2209090-33  
**Collection Date:** 09/12/22 09:46 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	18.1	0.106	0.318		mg/Kg-dry	5	09/15/22 02:12 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	9.25	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-9 0-1  
**Lab ID:** 2209090-36  
**Collection Date:** 09/12/22 09:40 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	414	0.103	0.310		mg/Kg-dry	5	09/19/22 10:51 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	12.9	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-9 1-2  
**Lab ID:** 2209090-37  
**Collection Date:** 09/12/22 09:40 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	20.3	0.105	0.316		mg/Kg-dry	5	09/29/22 11:41 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	15.3	0	0		WT%	1	09/26/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern



**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-10 0-1  
**Lab ID:** 2209090-39  
**Collection Date:** 09/12/22 10:34 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	41.8	0.120	0.360		mg/Kg-dry	5	09/19/22 10:54 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	19.8	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SB-11 0-1  
**Lab ID:** 2209090-42  
**Collection Date:** 09/12/22 10:26 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	97.9	0.118	0.355		mg/Kg-dry	5	09/19/22 10:57 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	20.2	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SGP-1 0-1  
**Lab ID:** 2209090-45  
**Collection Date:** 09/12/22 11:23 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	207	0.117	0.352		mg/Kg-dry	5	09/19/22 10:59 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	21.9	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SGP-2 0-1  
**Lab ID:** 2209090-48  
**Collection Date:** 09/12/22 11:03 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	369	0.107	0.321		mg/Kg-dry	5	09/19/22 11:17 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	13.5	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SGP-2 1-2  
**Lab ID:** 2209090-49  
**Collection Date:** 09/12/22 11:03 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	102	0.0953	0.286		mg/Kg-dry	5	09/29/22 11:33 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	10.4	0	0		WT%	1	09/26/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: SGP-5 3-5  
 Lab ID: 2209090-51  
 Collection Date: 09/12/22 08:47 AM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TX1005 TPH SOIL</b>		<b>TX1005</b>			Analyst: <b>BTJ</b>		
T/R Hydrocarbons: C6-C12	<10.3	10.3	29.4		mg/Kg-dry	1	09/16/22 11:43 AM
T/R Hydrocarbons: >C12-C28	<10.3	10.3	29.4		mg/Kg-dry	1	09/16/22 11:43 AM
T/R Hydrocarbons: >C28-C35	<10.3	10.3	29.4		mg/Kg-dry	1	09/16/22 11:43 AM
T/R Hydrocarbons: C6-C35	<10.3	10.3	29.4		mg/Kg-dry	1	09/16/22 11:43 AM
Surr: Isopropylbenzene	76.6	0	70-130		%REC	1	09/16/22 11:43 AM
Surr: Octacosane	99.3	0	70-130		%REC	1	09/16/22 11:43 AM
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
1,1,1,2-Tetrachloroethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,1,1-Trichloroethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,1,2,2-Tetrachloroethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,1,2-Trichloroethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,1,2-Trichlorotrifluoroethane	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
1,1-Dichloroethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,1-Dichloroethene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,1-Dichloropropene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2,3-Trichlorobenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2,3-Trichloropropane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2,4-Trichlorobenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2,4-Trimethylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2-Dibromo-3-chloropropane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2-Dibromoethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2-Dichlorobenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2-Dichloroethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,2-Dichloropropane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,3,5-Trimethylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,3-Dichlorobenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,3-Dichloropropane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1,4-Dichlorobenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
1-Chlorohexane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
2,2-Dichloropropane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
2-Butanone	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
2-Chlorotoluene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
2-Hexanone	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
4-Chlorotoluene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
4-Methyl-2-pentanone	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
Acetone	<0.0163	0.0163	0.0544		mg/Kg-dry	1	09/14/22 07:55 PM
Benzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Bromobenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SGP-5 3-5  
**Lab ID:** 2209090-51  
**Collection Date:** 09/12/22 08:47 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Bromochloromethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Bromodichloromethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Bromoform	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Bromomethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Carbon disulfide	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
Carbon tetrachloride	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Chlorobenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Chloroethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Chloroform	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Chloromethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
cis-1,2-Dichloroethene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
cis-1,3-Dichloropropene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Cyclohexane	<0.00544	0.00544	0.0163	N	mg/Kg-dry	1	09/14/22 07:55 PM
Dibromochloromethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Dibromomethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Dichlorodifluoromethane	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Ethylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Hexachlorobutadiene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Isopropylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
m,p-Xylene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Methyl Acetate	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
Methyl tert-butyl ether	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Methylcyclohexane	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
Methylene chloride	0.00702	0.00544	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Naphthalene	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
n-Butylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
n-Propylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
o-Xylene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
p-Isopropyltoluene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
sec-Butylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Styrene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
tert-Butylbenzene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Tetrachloroethene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Toluene	0.00188	0.00109	0.00544	J	mg/Kg-dry	1	09/14/22 07:55 PM
trans-1,2-Dichloroethene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
trans-1,3-Dichloropropene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Trichloroethene	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Trichlorofluoromethane	<0.00544	0.00544	0.0163		mg/Kg-dry	1	09/14/22 07:55 PM
Vinyl chloride	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM

**Qualifiers:** ND - Not Detected at the SDL  
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 DF- Dilution Factor  
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 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
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 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SGP-5 3-5  
**Lab ID:** 2209090-51  
**Collection Date:** 09/12/22 08:47 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Xylenes, Total	<0.00109	0.00109	0.00544		mg/Kg-dry	1	09/14/22 07:55 PM
Surr: 1,2-Dichloroethane-d4	96.7	0	52-149		%REC	1	09/14/22 07:55 PM
Surr: 4-Bromofluorobenzene	96.2	0	84-118		%REC	1	09/14/22 07:55 PM
Surr: Dibromofluoromethane	105	0	65-135		%REC	1	09/14/22 07:55 PM
Surr: Toluene-d8	91.9	0	84-116		%REC	1	09/14/22 07:55 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>			Analyst: <b>EAT</b>		
Percent Moisture	10.9	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
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 See Final Page of Report for MQLs and MDLs

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 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern



CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: SGP-6 1-3  
 Lab ID: 2209090-52  
 Collection Date: 09/12/22 08:42 AM  
 Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TX1005 TPH SOIL</b>		<b>TX1005</b>			Analyst: <b>BTJ</b>		
T/R Hydrocarbons: C6-C12	<10.2	10.2	29.3		mg/Kg-dry	1	09/16/22 11:52 AM
T/R Hydrocarbons: >C12-C28	<10.2	10.2	29.3		mg/Kg-dry	1	09/16/22 11:52 AM
T/R Hydrocarbons: >C28-C35	<10.2	10.2	29.3		mg/Kg-dry	1	09/16/22 11:52 AM
T/R Hydrocarbons: C6-C35	<10.2	10.2	29.3		mg/Kg-dry	1	09/16/22 11:52 AM
Surr: Isopropylbenzene	76.0	0	70-130		%REC	1	09/16/22 11:52 AM
Surr: Octacosane	97.4	0	70-130		%REC	1	09/16/22 11:52 AM
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
1,1,1,2-Tetrachloroethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,1,1-Trichloroethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,1,2,2-Tetrachloroethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,1,2-Trichloroethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,1,2-Trichlorotrifluoroethane	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
1,1-Dichloroethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,1-Dichloroethene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,1-Dichloropropene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2,3-Trichlorobenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2,3-Trichloropropane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2,4-Trichlorobenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2,4-Trimethylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2-Dibromo-3-chloropropane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2-Dibromoethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2-Dichlorobenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2-Dichloroethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,2-Dichloropropane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,3,5-Trimethylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,3-Dichlorobenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,3-Dichloropropane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1,4-Dichlorobenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
1-Chlorohexane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
2,2-Dichloropropane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
2-Butanone	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
2-Chlorotoluene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
2-Hexanone	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
4-Chlorotoluene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
4-Methyl-2-pentanone	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
Acetone	<0.0187	0.0187	0.0622		mg/Kg-dry	1	09/14/22 08:23 PM
Benzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Bromobenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM

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 J - Analyte detected between SDL and RL  
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 E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SGP-6 1-3  
**Lab ID:** 2209090-52  
**Collection Date:** 09/12/22 08:42 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Bromochloromethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Bromodichloromethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Bromoform	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Bromomethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Carbon disulfide	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
Carbon tetrachloride	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Chlorobenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Chloroethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Chloroform	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Chloromethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
cis-1,2-Dichloroethene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
cis-1,3-Dichloropropene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Cyclohexane	<0.00622	0.00622	0.0187	N	mg/Kg-dry	1	09/14/22 08:23 PM
Dibromochloromethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Dibromomethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Dichlorodifluoromethane	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Ethylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Hexachlorobutadiene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Isopropylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
m,p-Xylene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Methyl Acetate	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
Methyl tert-butyl ether	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Methylcyclohexane	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
Methylene chloride	0.00765	0.00622	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Naphthalene	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
n-Butylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
n-Propylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
o-Xylene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
p-Isopropyltoluene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
sec-Butylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Styrene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
tert-Butylbenzene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Tetrachloroethene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Toluene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
trans-1,2-Dichloroethene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
trans-1,3-Dichloropropene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Trichloroethene	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Trichlorofluoromethane	<0.00622	0.00622	0.0187		mg/Kg-dry	1	09/14/22 08:23 PM
Vinyl chloride	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** SGP-6 1-3  
**Lab ID:** 2209090-52  
**Collection Date:** 09/12/22 08:42 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILES BY 8260/5035 GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JL</b>		
Xylenes, Total	<0.00124	0.00124	0.00622		mg/Kg-dry	1	09/14/22 08:23 PM
Surr: 1,2-Dichloroethane-d4	96.0	0	52-149		%REC	1	09/14/22 08:23 PM
Surr: 4-Bromofluorobenzene	102	0	84-118		%REC	1	09/14/22 08:23 PM
Surr: Dibromofluoromethane	105	0	65-135		%REC	1	09/14/22 08:23 PM
Surr: Toluene-d8	92.9	0	84-116		%REC	1	09/14/22 08:23 PM
<b>PERCENT MOISTURE</b>		<b>D2216</b>			Analyst: <b>EAT</b>		
Percent Moisture	14.3	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: TB-1  
 Lab ID: 2209090-53  
 Collection Date: 09/12/22  
 Matrix: TRIP BLANK

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: JVR		
1,1,1,2-Tetrachloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,1,1-Trichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,1,2,2-Tetrachloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,1,2-Trichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,1,2-Trichlorotrifluoroethane	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
1,1-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,1-Dichloroethene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,1-Dichloropropene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:20 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:20 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:20 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/13/22 12:20 PM
1,2-Dibromoethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,2-Dichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:20 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,3-Dichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
1-Chlorohexane	<0.00100	0.00100	0.00500		mg/L	1	09/13/22 12:20 PM
2,2-Dichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
Benzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Bromobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Bromochloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Bromodichloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Bromoform	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
Carbon tetrachloride	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Chlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM

**Qualifiers:** ND - Not Detected at the SDL  
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 E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** TB-1  
**Lab ID:** 2209090-53  
**Collection Date:** 09/12/22  
**Matrix:** TRIP BLANK

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: <b>JVR</b>		
Chloroform	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
cis-1,2-Dichloroethene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
cis-1,3-Dichloropropene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Cyclohexane	<0.00500	0.00500	0.0150	N	mg/L	1	09/13/22 12:20 PM
Dibromochloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Dibromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Dichlorodifluoromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Hexachlorobutadiene	<0.00100	0.00100	0.00300		mg/L	1	09/13/22 12:20 PM
Isopropylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:20 PM
Methyl Acetate	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Methylcyclohexane	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/13/22 12:20 PM
Naphthalene	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:20 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Styrene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:20 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:20 PM
trans-1,2-Dichloroethene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
trans-1,3-Dichloropropene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:20 PM
Trichlorofluoromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Vinyl chloride	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Total Xylenes	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:20 PM
Surr: 1,2-Dichloroethane-d4	93.2	0	72-119		%REC	1	09/13/22 12:20 PM
Surr: 4-Bromofluorobenzene	96.2	0	76-119		%REC	1	09/13/22 12:20 PM
Surr: Dibromofluoromethane	99.9	0	85-115		%REC	1	09/13/22 12:20 PM
Surr: Toluene-d8	94.0	0	81-120		%REC	1	09/13/22 12:20 PM

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S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: Terracon  
 Project: Rosedale  
 Project No: 95207647 Task 3.6  
 Lab Order: 2209090

Client Sample ID: TB-2  
 Lab ID: 2209090-54  
 Collection Date: 09/12/22  
 Matrix: TRIP BLANK

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>		<b>SW8260D</b>			Analyst: JVR		
1,1,1,2-Tetrachloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,1,1-Trichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,1,2,2-Tetrachloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,1,2-Trichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,1,2-Trichlorotrifluoroethane	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
1,1-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,1-Dichloroethene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,1-Dichloropropene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:46 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:46 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:46 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	09/13/22 12:46 PM
1,2-Dibromoethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,2-Dichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	09/13/22 12:46 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,3-Dichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
1-Chlorohexane	<0.00100	0.00100	0.00500		mg/L	1	09/13/22 12:46 PM
2,2-Dichloropropane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
Benzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Bromobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Bromochloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Bromodichloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Bromoform	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
Carbon tetrachloride	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Chlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM

**Qualifiers:** ND - Not Detected at the SDL  
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 B - Analyte detected in the associated Method Blank  
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 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** TB-2  
**Lab ID:** 2209090-54  
**Collection Date:** 09/12/22  
**Matrix:** TRIP BLANK

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>8260 WATER VOLATILES BY GC/MS</b>		<b>SW8260D</b>					Analyst: <b>JVR</b>
Chloroform	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
cis-1,2-Dichloroethene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
cis-1,3-Dichloropropene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Cyclohexane	<0.00500	0.00500	0.0150	N	mg/L	1	09/13/22 12:46 PM
Dibromochloromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Dibromomethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Dichlorodifluoromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Hexachlorobutadiene	<0.00100	0.00100	0.00300		mg/L	1	09/13/22 12:46 PM
Isopropylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:46 PM
Methyl Acetate	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Methylcyclohexane	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	09/13/22 12:46 PM
Naphthalene	<0.00500	0.00500	0.0150		mg/L	1	09/13/22 12:46 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Styrene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:46 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:46 PM
trans-1,2-Dichloroethene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
trans-1,3-Dichloropropene	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	09/13/22 12:46 PM
Trichlorofluoromethane	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Vinyl chloride	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Total Xylenes	<0.000300	0.000300	0.00100		mg/L	1	09/13/22 12:46 PM
Surr: 1,2-Dichloroethane-d4	93.0	0	72-119		%REC	1	09/13/22 12:46 PM
Surr: 4-Bromofluorobenzene	98.9	0	76-119		%REC	1	09/13/22 12:46 PM
Surr: Dibromofluoromethane	101	0	85-115		%REC	1	09/13/22 12:46 PM
Surr: Toluene-d8	93.9	0	81-120		%REC	1	09/13/22 12:46 PM

**Qualifiers:** ND - Not Detected at the SDL  
 J - Analyte detected between SDL and RL  
 B - Analyte detected in the associated Method Blank  
 DF- Dilution Factor  
 N - Parameter not NELAP certified  
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
 C - Sample Result or QC discussed in Case Narrative  
 RL - Reporting Limit (MQL adjusted for moisture and sample size)  
 SDL - Sample Detection Limit  
 E - TPH pattern not Gas or Diesel Range Pattern

**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** Dup-SGP-1 0-1  
**Lab ID:** 2209090-55  
**Collection Date:** 09/12/22 11:23 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>		Analyst: <b>SP</b>			
Lead	67.8	0.108	0.323		mg/Kg-dry	5	09/19/22 11:19 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>		Analyst: <b>EAT</b>			
Percent Moisture	13.3	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern



**DHL Analytical, Inc.**

**Date:** 30-Sep-22

**CLIENT:** Terracon  
**Project:** Rosedale  
**Project No:** 95207647 Task 3.6  
**Lab Order:** 2209090

**Client Sample ID:** Dup-SB-2 0-1  
**Lab ID:** 2209090-56  
**Collection Date:** 09/12/22 11:11 AM  
**Matrix:** SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
<b>TRACE METALS: ICP-MS - SOLID</b>		<b>SW6020B</b>					Analyst: <b>SP</b>
Lead	27.0	0.113	0.338		mg/Kg-dry	5	09/19/22 11:22 AM
<b>PERCENT MOISTURE</b>		<b>D2216</b>					Analyst: <b>EAT</b>
Percent Moisture	20.1	0	0		WT%	1	09/14/22 09:15 AM

**Qualifiers:** ND - Not Detected at the SDL  
J - Analyte detected between SDL and RL  
B - Analyte detected in the associated Method Blank  
DF- Dilution Factor  
N - Parameter not NELAP certified  
See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits  
C - Sample Result or QC discussed in Case Narrative  
RL - Reporting Limit (MQL adjusted for moisture and sample size)  
SDL - Sample Detection Limit  
E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

**ANALYTICAL QC SUMMARY REPORT**

**RunID: GC12\_220811A**

Sample ID: <b>DCS-106575</b>	Batch ID: <b>106575</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>							
SampType: <b>DCS</b>	Run ID: <b>GC12_220811A</b>	Analysis Date: <b>8/11/2022 2:52:27 PM</b>	Prep Date: <b>8/11/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	14.9	20.0	10.00	0	149	50	200	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 RL Reporting Limit  
 J Analyte detected between SDL and RL

DF Dilution Factor  
 MDL Method Detection Limit  
 R RPD outside accepted control limits  
 S Spike Recovery outside control limits  
 N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GC12\_220916A**

The QC data in batch 107049 applies to the following samples: 2209090-04B, 2209090-06B, 2209090-10B, 2209090-51B, 2209090-52B

Sample ID: <b>MB-107049</b>	Batch ID: <b>107049</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GC12_220916A</b>	Analysis Date: <b>9/16/2022 9:59:24 AM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C12	<7.00	20.0								
T/R Hydrocarbons: >C12-C28	<7.00	20.0								
T/R Hydrocarbons: >C28-C35	<7.00	20.0								
T/R Hydrocarbons: C6-C35	<7.00	20.0								
Surr: Isopropylbenzene	18.3		25.00		73.1	70	130			
Surr: Octacosane	24.1		25.00		96.4	70	130			

Sample ID: <b>LCS-107049</b>	Batch ID: <b>107049</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>LCS</b>	Run ID: <b>GC12_220916A</b>	Analysis Date: <b>9/16/2022 10:08:27 AM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	245	20.0	250.0	0	97.8	75	125			
Surr: Isopropylbenzene	21.8		25.00		87.1	70	130			
Surr: Octacosane	25.0		25.00		100	70	130			

Sample ID: <b>LCSD-107049</b>	Batch ID: <b>107049</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>LCSD</b>	Run ID: <b>GC12_220916A</b>	Analysis Date: <b>9/16/2022 10:17:30 AM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	241	20.0	250.0	0	96.5	75	125	1.36	20	
Surr: Isopropylbenzene	21.9		25.00		87.7	70	130	0	0	
Surr: Octacosane	24.2		25.00		96.6	70	130	0	0	

Sample ID: <b>2209090-10BMS</b>	Batch ID: <b>107049</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GC12_220916A</b>	Analysis Date: <b>9/16/2022 11:25:48 AM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	328	26.8	334.6	0	98.0	75	125			
Surr: Isopropylbenzene	29.3		33.46		87.7	70	130			
Surr: Octacosane	33.0		33.46		98.6	70	130			

Sample ID: <b>2209090-10BMSD</b>	Batch ID: <b>107049</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GC12_220916A</b>	Analysis Date: <b>9/16/2022 11:34:50 AM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	303	24.3	303.6	0	99.7	75	125	7.92	20	
Surr: Isopropylbenzene	27.1		30.36		89.3	70	130	0	0	
Surr: Octacosane	31.2		30.36		103	70	130	0	0	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GC12\_220916A**

Sample ID: <b>ICV-220916</b>	Batch ID: <b>R123120</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>ICV</b>	Run ID: <b>GC12_220916A</b>	Analysis Date: <b>9/16/2022 9:28:11 AM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	1060	20.0	1000	0	106	75	125			
Surr: Isopropylbenzene	47.4		50.00		94.8	70	130			
Surr: Octacosane	48.6		50.00		97.3	70	130			

Sample ID: <b>CCV1-220916</b>	Batch ID: <b>R123120</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>CCV</b>	Run ID: <b>GC12_220916A</b>	Analysis Date: <b>9/16/2022 2:15:10 PM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	515	20.0	500.0	0	103	75	125			
Surr: Isopropylbenzene	25.8		25.00		103	70	130			
Surr: Octacosane	26.1		25.00		105	70	130			

**Qualifiers:**

B Analyte detected in the associated Method Blank	DF Dilution Factor
J Analyte detected between MDL and RL	MDL Method Detection Limit
ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits
RL Reporting Limit	S Spike Recovery outside control limits
J Analyte detected between SDL and RL	N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GC12\_220923A

The QC data in batch 107114 applies to the following samples: 2209090-05A, 2209090-11A

Sample ID: <b>MB-107114</b>	Batch ID: <b>107114</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GC12_220923A</b>	Analysis Date: <b>9/23/2022 11:51:03 AM</b>	Prep Date: <b>9/23/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C12	<7.00	20.0								
T/R Hydrocarbons: >C12-C28	<7.00	20.0								
T/R Hydrocarbons: >C28-C35	<7.00	20.0								
T/R Hydrocarbons: C6-C35	<7.00	20.0								
Surr: Isopropylbenzene	18.8		25.00		75.2	70	130			
Surr: Octacosane	24.4		25.00		97.5	70	130			

Sample ID: <b>LCS-107114</b>	Batch ID: <b>107114</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>LCS</b>	Run ID: <b>GC12_220923A</b>	Analysis Date: <b>9/23/2022 12:00:06 PM</b>	Prep Date: <b>9/23/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	240	20.0	250.0	0	95.9	75	125			
Surr: Isopropylbenzene	21.9		25.00		87.7	70	130			
Surr: Octacosane	24.8		25.00		99.2	70	130			

Sample ID: <b>LCSD-107114</b>	Batch ID: <b>107114</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>LCSD</b>	Run ID: <b>GC12_220923A</b>	Analysis Date: <b>9/23/2022 12:09:09 PM</b>	Prep Date: <b>9/23/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	247	20.0	250.0	0	99.0	75	125	3.11	20	
Surr: Isopropylbenzene	22.2		25.00		88.6	70	130	0	0	
Surr: Octacosane	25.0		25.00		100	70	130	0	0	

Sample ID: <b>2209090-11AMS</b>	Batch ID: <b>107114</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GC12_220923A</b>	Analysis Date: <b>9/23/2022 12:36:16 PM</b>	Prep Date: <b>9/23/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	281	23.3	291.5	0	96.3	75	125			
Isopropylbenzene	31.1	0	29.15	0	107	70	130			
Surr: Octacosane	29.0		29.15		99.5	70	130			

Sample ID: <b>2209090-11AMSD</b>	Batch ID: <b>107114</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GC12_220923A</b>	Analysis Date: <b>9/23/2022 12:45:17 PM</b>	Prep Date: <b>9/23/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	280	22.9	286.4	0	97.8	75	125	0.235	20	
Isopropylbenzene	25.9	0	28.64	0	90.5	70	130	0	0	
Surr: Octacosane	29.4		28.64		103	70	130	0	0	

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GC12\_220923A**

Sample ID: <b>ICV-220923</b>	Batch ID: <b>R123197</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>ICV</b>	Run ID: <b>GC12_220923A</b>	Analysis Date: <b>9/23/2022 11:39:44 AM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	1110	20.0	1000	0	111	75	125			
Surr: Isopropylbenzene	49.0		50.00		98.0	70	130			
Surr: Octacosane	51.5		50.00		103	70	130			

Sample ID: <b>CCV1-220923</b>	Batch ID: <b>R123197</b>	TestNo: <b>TX1005</b>	Units: <b>mg/Kg</b>
SampType: <b>CCV</b>	Run ID: <b>GC12_220923A</b>	Analysis Date: <b>9/23/2022 2:19:17 PM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C35	559	20.0	500.0	0	112	75	125			
Surr: Isopropylbenzene	27.4		25.00		110	70	130			
Surr: Octacosane	27.3		25.00		109	70	130			

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
                   J Analyte detected between MDL and RL                    MDL Method Detection Limit  
                   ND Not Detected at the Method Detection Limit            R RPD outside accepted control limits  
                   RL Reporting Limit    S Spike Recovery outside control limits  
                   J Analyte detected between SDL and RL                        N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS5\_220822A**

Sample ID: <b>DCS1-106707</b>	Batch ID: <b>106707</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS</b>	Run ID: <b>ICP-MS5_220822A</b>	Analysis Date: <b>8/22/2022 11:23:00 AM</b>	Prep Date: <b>8/19/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.305	0.300	0.2500	0	122	70	130	0	0	

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS5\_220915A**

The QC data in batch 107032 applies to the following samples: 2209090-01A, 2209090-07A, 2209090-12A, 2209090-15A, 2209090-18A, 2209090-21A, 2209090-24A, 2209090-27A, 2209090-30A, 2209090-33A

Sample ID: <b>MB-107032</b>	Batch ID: <b>107032</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>MBLK</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:02:00 PM</b>	Prep Date: <b>9/14/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	<0.100	0.300								

Sample ID: <b>LCS-107032</b>	Batch ID: <b>107032</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>LCS</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:04:00 PM</b>	Prep Date: <b>9/14/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	50.6	0.300	50.00	0	101	80	120			

Sample ID: <b>LCSD-107032</b>	Batch ID: <b>107032</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>LCSD</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:07:00 PM</b>	Prep Date: <b>9/14/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	50.1	0.300	50.00	0	100	80	120	0.926	25	

Sample ID: <b>2209090-33A SD</b>	Batch ID: <b>107032</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>SD</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:14:00 PM</b>	Prep Date: <b>9/14/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	16.3	1.59	0	18.06				10.5	20	

Sample ID: <b>2209090-33A PDS</b>	Batch ID: <b>107032</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>PDS</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:40:00 PM</b>	Prep Date: <b>9/14/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	73.8	0.318	52.98	18.06	105	75	125			

Sample ID: <b>2209090-33A MS</b>	Batch ID: <b>107032</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>MS</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:42:00 PM</b>	Prep Date: <b>9/14/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	66.9	0.303	50.55	18.06	96.7	75	125			

Sample ID: <b>2209090-33A MSD</b>	Batch ID: <b>107032</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>MSD</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:45:00 PM</b>	Prep Date: <b>9/14/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	67.0	0.301	50.09	18.06	97.7	75	125	0.082	25	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified



CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS5\_220915A**

Sample ID: <b>CCV5-220915</b>	Batch ID: <b>R123103</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>CCV</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 2:47:00 PM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.196	0.0600	0.2000	0	97.9	90	110			
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Sample ID: <b>CCV6-220915</b>	Batch ID: <b>R123103</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>CCV</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 3:18:00 PM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.194	0.0600	0.2000	0	97.1	90	110			
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Sample ID: <b>ICV-220915</b>	Batch ID: <b>R123103</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>							
SampType: <b>ICV</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 10:36:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.0979	0.00100	0.100	0	97.9	90	110			
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Sample ID: <b>LCVL-220915</b>	Batch ID: <b>R123103</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>							
SampType: <b>LCVL</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 10:42:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.00104	0.00100	0.00100	0	104	80	120			
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Sample ID: <b>CCV4-220915</b>	Batch ID: <b>R123103</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>							
SampType: <b>CCV</b>	Run ID: <b>ICP-MS5_220915A</b>	Analysis Date: <b>9/15/2022 1:36:00 PM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.195	0.00100	0.200	0	97.3	90	110			
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<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS5\_220919A**

The QC data in batch 107053 applies to the following samples: 2209090-36A, 2209090-39A, 2209090-42A, 2209090-45A, 2209090-48A, 2209090-55A, 2209090-56A

Sample ID: <b>MB-107053</b>	Batch ID: <b>107053</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>MBLK</b>	Run ID: <b>ICP-MS5_220919A</b>	Analysis Date: <b>9/19/2022 10:23:00 AM</b>	Prep Date: <b>9/16/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	<0.100	0.300								

Sample ID: <b>LCS-107053</b>	Batch ID: <b>107053</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>LCS</b>	Run ID: <b>ICP-MS5_220919A</b>	Analysis Date: <b>9/19/2022 10:25:00 AM</b>	Prep Date: <b>9/16/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	50.7	0.300	50.00	0	101	80	120			

Sample ID: <b>LCSD-107053</b>	Batch ID: <b>107053</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>LCSD</b>	Run ID: <b>ICP-MS5_220919A</b>	Analysis Date: <b>9/19/2022 10:28:00 AM</b>	Prep Date: <b>9/16/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	50.5	0.300	50.00	0	101	80	120	0.369	25	

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS5\_220919A**

Sample ID: <b>CCV1-220919</b>	Batch ID: <b>R123121</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>CCV</b>	Run ID: <b>ICP-MS5_220919A</b>	Analysis Date: <b>9/19/2022 11:09:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.210	0.0600	0.2000	0	105	90	110			
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Sample ID: <b>CCV2-220919</b>	Batch ID: <b>R123121</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>CCV</b>	Run ID: <b>ICP-MS5_220919A</b>	Analysis Date: <b>9/19/2022 11:42:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.192	0.0600	0.2000	0	96.0	90	110			
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Sample ID: <b>ICV-220919</b>	Batch ID: <b>R123121</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>							
SampType: <b>ICV</b>	Run ID: <b>ICP-MS5_220919A</b>	Analysis Date: <b>9/19/2022 10:06:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.102	0.00100	0.100	0	102	90	110			
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Sample ID: <b>LCVL-220919</b>	Batch ID: <b>R123121</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>							
SampType: <b>LCVL</b>	Run ID: <b>ICP-MS5_220919A</b>	Analysis Date: <b>9/19/2022 10:15:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.000994	0.00100	0.00100	0	99.4	80	120			
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<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS5\_220929B**

The QC data in batch 107168 applies to the following samples: 2209090-25A, 2209090-37A, 2209090-49A

Sample ID: <b>MB-107168</b>	Batch ID: <b>107168</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>MBLK</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 11:23:00 AM</b>	Prep Date: <b>9/28/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	<0.100	0.300
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Sample ID: <b>LCS-107168</b>	Batch ID: <b>107168</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>LCS</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 11:26:00 AM</b>	Prep Date: <b>9/28/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	50.1	0.300	50.00	0	100	80	120
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Sample ID: <b>LCSD-107168</b>	Batch ID: <b>107168</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>LCSD</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 11:28:00 AM</b>	Prep Date: <b>9/28/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	50.2	0.300	50.00	0	100	80	120	0.294	25
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Sample ID: <b>2209090-49A SD</b>	Batch ID: <b>107168</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>SD</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 11:36:00 AM</b>	Prep Date: <b>9/28/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	98.5	1.43	0	101.8				3.31	20
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Sample ID: <b>2209090-49A PDS</b>	Batch ID: <b>107168</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>PDS</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 12:01:00 PM</b>	Prep Date: <b>9/28/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	155	0.286	47.67	101.8	111	75	125
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Sample ID: <b>2209090-49A MS</b>	Batch ID: <b>107168</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>MS</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 12:04:00 PM</b>	Prep Date: <b>9/28/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	188	0.288	48.08	101.8	180	75	125			S
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Sample ID: <b>2209090-49A MSD</b>	Batch ID: <b>107168</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg-dry</b>							
SampType: <b>MSD</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 12:06:00 PM</b>	Prep Date: <b>9/28/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	175	0.286	47.67	101.8	154	75	125	7.42	25	S
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**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL                                      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit                              R RPD outside accepted control limits  
 RL Reporting Limit    S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL    N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS5\_220929B**

Sample ID: <b>CCV1-220929</b>	Batch ID: <b>R123269</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>CCV</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 11:15:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.197	0.0600	0.2000	0	98.7	90	110
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Sample ID: <b>CCV2-220929</b>	Batch ID: <b>R123269</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/Kg</b>							
SampType: <b>CCV</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 12:12:00 PM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.198	0.0600	0.2000	0	98.9	90	110
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Sample ID: <b>ICV-220929</b>	Batch ID: <b>R123269</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>							
SampType: <b>ICV</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 10:33:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.0998	0.00100	0.100	0	99.8	90	110
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Sample ID: <b>LCVL-220929</b>	Batch ID: <b>R123269</b>	TestNo: <b>SW6020B</b>	Units: <b>mg/L</b>							
SampType: <b>LCVL</b>	Run ID: <b>ICP-MS5_220929B</b>	Analysis Date: <b>9/29/2022 10:39:00 AM</b>	Prep Date:							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Lead	0.00101	0.00100	0.00100	0	101	80	120
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<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220915A

Sample ID: <b>DCS-107002</b>	Batch ID: <b>107002</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS</b>	Run ID: <b>GCMS1_220915A</b>	Analysis Date: <b>9/15/2022 11:30:00 PM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.00215	0.00500	0.00232	0	92.8	10	400	0	0	
1,1,1-Trichloroethane	0.00220	0.00500	0.00232	0	94.6	10	400	0	0	
1,1,2,2-Tetrachloroethane	0.00200	0.00500	0.00232	0	86.3	10	400	0	0	
1,1,2-Trichloroethane	0.00220	0.00500	0.00232	0	95.0	10	400	0	0	
1,1,2-Trichlorotrifluoroethane	0.00190	0.01500	0.00232	0	81.9	10	400	0	0	
1,1-Dichloroethane	0.00225	0.00500	0.00232	0	97.0	10	400	0	0	
1,1-Dichloroethene	0.00199	0.00500	0.00232	0	85.9	10	400	0	0	
1,1-Dichloropropene	0.00208	0.00500	0.00232	0	89.7	10	400	0	0	
1,2,3-Trichlorobenzene	0.00221	0.00500	0.00232	0	95.3	10	400	0	0	
1,2,3-Trichloropropane	0.00192	0.00500	0.00232	0	82.6	10	400	0	0	
1,2,4-Trichlorobenzene	0.00206	0.00500	0.00232	0	88.7	10	400	0	0	
1,2,4-Trimethylbenzene	0.00195	0.00500	0.00232	0	84.0	10	400	0	0	
1,2-Dibromo-3-chloropropane	0.00187	0.00500	0.00232	0	80.6	10	400	0	0	
1,2-Dibromoethane	0.00210	0.00500	0.00232	0	90.6	10	400	0	0	
1,2-Dichlorobenzene	0.00218	0.00500	0.00232	0	94.0	10	400	0	0	
1,2-Dichloroethane	0.00213	0.00500	0.00232	0	91.7	10	400	0	0	
1,2-Dichloropropane	0.00218	0.00500	0.00232	0	94.0	10	400	0	0	
1,3,5-Trimethylbenzene	0.00188	0.00500	0.00232	0	81.2	10	400	0	0	
1,3-Dichlorobenzene	0.00220	0.00500	0.00232	0	94.9	10	400	0	0	
1,3-Dichloropropane	0.00223	0.00500	0.00232	0	96.3	10	400	0	0	
1,4-Dichlorobenzene	0.00222	0.00500	0.00232	0	95.7	10	400	0	0	
1-Chlorohexane	0.00320	0.00500	0.00232	0	138	10	400	0	0	
2,2-Dichloropropane	0.00252	0.00500	0.00232	0	108	10	400	0	0	
2-Butanone	0.0104	0.01500	0.0116	0	89.5	10	400	0	0	
2-Chlorotoluene	0.00213	0.00500	0.00232	0	91.9	10	400	0	0	
2-Hexanone	0.00996	0.01500	0.0116	0	85.9	10	400	0	0	
4-Chlorotoluene	0.00206	0.00500	0.00232	0	88.9	10	400	0	0	
4-Methyl-2-pentanone	0.00988	0.01500	0.0116	0	85.2	10	400	0	0	
Acetone	0.00716	0.05000	0.0116	0	61.7	10	400	0	0	
Benzene	0.00216	0.00500	0.00232	0	93.2	10	400	0	0	
Bromobenzene	0.00216	0.00500	0.00232	0	93.0	10	400	0	0	
Bromochloromethane	0.00216	0.00500	0.00232	0	93.1	10	400	0	0	
Bromodichloromethane	0.00209	0.00500	0.00232	0	90.0	10	400	0	0	
Bromoform	0.00189	0.00500	0.00232	0	81.5	10	400	0	0	
Bromomethane	0.00305	0.00500	0.00232	0	131	10	400	0	0	
Carbon disulfide	0.00178	0.01500	0.00232	0	76.9	10	400	0	0	
Carbon tetrachloride	0.00221	0.00500	0.00232	0	95.1	10	400	0	0	
Chlorobenzene	0.00230	0.00500	0.00232	0	98.9	10	400	0	0	
Chloroethane	0.00242	0.00500	0.00232	0	104	10	400	0	0	
Chloroform	0.00219	0.00500	0.00232	0	94.3	10	400	0	0	
Chloromethane	0.00217	0.00500	0.00232	0	93.6	10	400	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220915A

Sample ID: <b>DCS-107002</b>	Batch ID: <b>107002</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS</b>	Run ID: <b>GCMS1_220915A</b>	Analysis Date: <b>9/15/2022 11:30:00 PM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	0.00222	0.00500	0.00232	0	95.8	10	400	0	0	
cis-1,3-Dichloropropene	0.00204	0.00500	0.00232	0	88.1	10	400	0	0	
Cyclohexane	0.00256	0.0150	0.00232	0	110	10	400	0	0	N
Dibromochloromethane	0.00217	0.00500	0.00232	0	93.6	10	400	0	0	
Dibromomethane	0.00213	0.00500	0.00232	0	91.6	10	400	0	0	
Dichlorodifluoromethane	0.00179	0.00500	0.00232	0	77.2	10	400	0	0	
Ethylbenzene	0.00223	0.00500	0.00232	0	96.1	10	400	0	0	
Hexachlorobutadiene	0.00231	0.00500	0.00232	0	99.5	10	400	0	0	
Isopropylbenzene	0.00218	0.00500	0.00232	0	94.0	10	400	0	0	
m,p-Xylene	0.00406	0.00500	0.00464	0	87.6	10	400	0	0	
Methyl Acetate	0.00242	0.0150	0.00232	0	104	10	400	0	0	
Methyl tert-butyl ether	0.00215	0.00500	0.00232	0	92.5	10	400	0	0	
Methylcyclohexane	0.00240	0.0150	0.00232	0	104	10	400	0	0	
Methylene chloride	0.00195	0.00500	0.00232	0	83.9	10	400	0	0	
Naphthalene	0.00192	0.0150	0.00232	0	82.6	10	400	0	0	
n-Butylbenzene	0.00205	0.00500	0.00232	0	88.4	10	400	0	0	
n-Propylbenzene	0.00213	0.00500	0.00232	0	91.7	10	400	0	0	
o-Xylene	0.00214	0.00500	0.00232	0	92.2	10	400	0	0	
p-Isopropyltoluene	0.00190	0.00500	0.00232	0	81.9	10	400	0	0	
sec-Butylbenzene	0.00201	0.00500	0.00232	0	86.5	10	400	0	0	
Styrene	0.00182	0.00500	0.00232	0	78.4	10	400	0	0	
tert-Butylbenzene	0.00206	0.00500	0.00232	0	88.7	10	400	0	0	
Tetrachloroethene	0.00206	0.00500	0.00232	0	88.8	10	400	0	0	
Toluene	0.00225	0.00500	0.00232	0	96.9	10	400	0	0	
trans-1,2-Dichloroethene	0.00216	0.00500	0.00232	0	92.9	10	400	0	0	
trans-1,3-Dichloropropene	0.00296	0.00500	0.00232	0	128	10	400	0	0	
Trichloroethene	0.00206	0.00500	0.00232	0	89.0	10	400	0	0	
Trichlorofluoromethane	0.00232	0.0150	0.00232	0	99.8	10	400	0	0	
Vinyl chloride	0.00227	0.00500	0.00232	0	97.9	10	400	0	0	
Total Xylenes	0.00620	0.00500	0.00696	0	89.1	10	400	0	0	

Sample ID: <b>DCS2-107002</b>	Batch ID: <b>107002</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS2</b>	Run ID: <b>GCMS1_220915A</b>	Analysis Date: <b>9/15/2022 11:58:00 PM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.00441	0.00500	0.00464	0	95.1	10	400	0	0	
1,1,1-Trichloroethane	0.00448	0.00500	0.00464	0	96.4	10	400	0	0	
1,1,2,2-Tetrachloroethane	0.00417	0.00500	0.00464	0	89.8	10	400	0	0	
1,1,2-Trichloroethane	0.00442	0.00500	0.00464	0	95.2	10	400	0	0	
1,1,2-Trichlorotrifluoroethane	0.00420	0.0150	0.00464	0	90.4	10	400	0	0	
1,1-Dichloroethane	0.00461	0.00500	0.00464	0	99.3	10	400	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220915A

Sample ID: <b>DCS2-107002</b>	Batch ID: <b>107002</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS2</b>	Run ID: <b>GCMS1_220915A</b>	Analysis Date: <b>9/15/2022 11:58:00 PM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	0.00396	0.00500	0.00464	0	85.4	10	400	0	0	
1,1-Dichloropropene	0.00428	0.00500	0.00464	0	92.1	10	400	0	0	
1,2,3-Trichlorobenzene	0.00452	0.00500	0.00464	0	97.4	10	400	0	0	
1,2,3-Trichloropropane	0.00384	0.00500	0.00464	0	82.8	10	400	0	0	
1,2,4-Trichlorobenzene	0.00440	0.00500	0.00464	0	94.8	10	400	0	0	
1,2,4-Trimethylbenzene	0.00407	0.00500	0.00464	0	87.8	10	400	0	0	
1,2-Dibromo-3-chloropropane	0.00428	0.00500	0.00464	0	92.2	10	400	0	0	
1,2-Dibromoethane	0.00443	0.00500	0.00464	0	95.6	10	400	0	0	
1,2-Dichlorobenzene	0.00425	0.00500	0.00464	0	91.6	10	400	0	0	
1,2-Dichloroethane	0.00427	0.00500	0.00464	0	92.0	10	400	0	0	
1,2-Dichloropropane	0.00438	0.00500	0.00464	0	94.3	10	400	0	0	
1,3,5-Trimethylbenzene	0.00398	0.00500	0.00464	0	85.7	10	400	0	0	
1,3-Dichlorobenzene	0.00434	0.00500	0.00464	0	93.6	10	400	0	0	
1,3-Dichloropropane	0.00428	0.00500	0.00464	0	92.2	10	400	0	0	
1,4-Dichlorobenzene	0.00456	0.00500	0.00464	0	98.2	10	400	0	0	
1-Chlorohexane	0.00514	0.00500	0.00464	0	111	10	400	0	0	
2,2-Dichloropropane	0.00495	0.00500	0.00464	0	107	10	400	0	0	
2-Butanone	0.0227	0.0150	0.0232	0	97.8	10	400	0	0	
2-Chlorotoluene	0.00431	0.00500	0.00464	0	92.8	10	400	0	0	
2-Hexanone	0.0216	0.0150	0.0232	0	93.0	10	400	0	0	
4-Chlorotoluene	0.00421	0.00500	0.00464	0	90.7	10	400	0	0	
4-Methyl-2-pentanone	0.0215	0.0150	0.0232	0	92.6	10	400	0	0	
Acetone	0.0191	0.0500	0.0232	0	82.2	10	400	0	0	
Benzene	0.00433	0.00500	0.00464	0	93.4	10	400	0	0	
Bromobenzene	0.00430	0.00500	0.00464	0	92.7	10	400	0	0	
Bromochloromethane	0.00461	0.00500	0.00464	0	99.4	10	400	0	0	
Bromodichloromethane	0.00438	0.00500	0.00464	0	94.5	10	400	0	0	
Bromoform	0.00396	0.00500	0.00464	0	85.4	10	400	0	0	
Bromomethane	0.00505	0.00500	0.00464	0	109	10	400	0	0	
Carbon disulfide	0.00348	0.0150	0.00464	0	75.1	10	400	0	0	
Carbon tetrachloride	0.00459	0.00500	0.00464	0	99.0	10	400	0	0	
Chlorobenzene	0.00448	0.00500	0.00464	0	96.5	10	400	0	0	
Chloroethane	0.00478	0.00500	0.00464	0	103	10	400	0	0	
Chloroform	0.00455	0.00500	0.00464	0	98.0	10	400	0	0	
Chloromethane	0.00477	0.00500	0.00464	0	103	10	400	0	0	
cis-1,2-Dichloroethene	0.00440	0.00500	0.00464	0	94.9	10	400	0	0	
cis-1,3-Dichloropropene	0.00417	0.00500	0.00464	0	89.8	10	400	0	0	
Cyclohexane	0.00508	0.0150	0.00464	0	110	10	400	0	0	N
Dibromochloromethane	0.00439	0.00500	0.00464	0	94.5	10	400	0	0	
Dibromomethane	0.00448	0.00500	0.00464	0	96.5	10	400	0	0	
Dichlorodifluoromethane	0.00359	0.00500	0.00464	0	77.3	10	400	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified



CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220915A

Sample ID: <b>DCS2-107002</b>	Batch ID: <b>107002</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS2</b>	Run ID: <b>GCMS1_220915A</b>	Analysis Date: <b>9/15/2022 11:58:00 PM</b>	Prep Date: <b>9/15/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Ethylbenzene	0.00434	0.00500	0.00464	0	93.6	10	400	0	0	
Hexachlorobutadiene	0.00434	0.00500	0.00464	0	93.6	10	400	0	0	
Isopropylbenzene	0.00439	0.00500	0.00464	0	94.7	10	400	0	0	
m,p-Xylene	0.00830	0.00500	0.00928	0	89.5	10	400	0	0	
Methyl Acetate	0.00508	0.0150	0.00464	0	109	10	400	0	0	
Methyl tert-butyl ether	0.00439	0.00500	0.00464	0	94.5	10	400	0	0	
Methylcyclohexane	0.00489	0.0150	0.00464	0	105	10	400	0	0	
Methylene chloride	0.00432	0.00500	0.00464	0	93.0	10	400	0	0	
Naphthalene	0.00406	0.0150	0.00464	0	87.6	10	400	0	0	
n-Butylbenzene	0.00421	0.00500	0.00464	0	90.7	10	400	0	0	
n-Propylbenzene	0.00431	0.00500	0.00464	0	92.9	10	400	0	0	
o-Xylene	0.00428	0.00500	0.00464	0	92.2	10	400	0	0	
p-Isopropyltoluene	0.00397	0.00500	0.00464	0	85.6	10	400	0	0	
sec-Butylbenzene	0.00420	0.00500	0.00464	0	90.4	10	400	0	0	
Styrene	0.00386	0.00500	0.00464	0	83.2	10	400	0	0	
tert-Butylbenzene	0.00422	0.00500	0.00464	0	90.9	10	400	0	0	
Tetrachloroethene	0.00438	0.00500	0.00464	0	94.3	10	400	0	0	
Toluene	0.00452	0.00500	0.00464	0	97.4	10	400	0	0	
trans-1,2-Dichloroethene	0.00418	0.00500	0.00464	0	90.2	10	400	0	0	
trans-1,3-Dichloropropene	0.00507	0.00500	0.00464	0	109	10	400	0	0	
Trichloroethene	0.00407	0.00500	0.00464	0	87.7	10	400	0	0	
Trichlorofluoromethane	0.00475	0.0150	0.00464	0	102	10	400	0	0	
Vinyl chloride	0.00456	0.00500	0.00464	0	98.2	10	400	0	0	
Total Xylenes	0.0126	0.00500	0.0139	0	90.4	10	400	0	0	

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220922A

The QC data in batch 107106 applies to the following samples: 2209090-05A, 2209090-11A

Sample ID: <b>LCS-107106</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:01:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0228	0.00500	0.0232	0	98.1	74	125			
1,1,1-Trichloroethane	0.0238	0.00500	0.0232	0	103	68	130			
1,1,2,2-Tetrachloroethane	0.0214	0.00500	0.0232	0	92.3	59	140			
1,1,2-Trichloroethane	0.0239	0.00500	0.0232	0	103	62	127			
1,1,2-Trichlorotrifluoroethane	0.0212	0.0150	0.0232	0	91.5	70	130			
1,1-Dichloroethane	0.0243	0.00500	0.0232	0	105	73	125			
1,1-Dichloroethene	0.0215	0.00500	0.0232	0	92.7	65	136			
1,1-Dichloropropene	0.0232	0.00500	0.0232	0	99.8	70	135			
1,2,3-Trichlorobenzene	0.0229	0.00500	0.0232	0	98.5	62	133			
1,2,3-Trichloropropane	0.0210	0.00500	0.0232	0	90.5	63	130			
1,2,4-Trichlorobenzene	0.0219	0.00500	0.0232	0	94.5	65	131			
1,2,4-Trimethylbenzene	0.0212	0.00500	0.0232	0	91.4	65	135			
1,2-Dibromo-3-chloropropane	0.0229	0.00500	0.0232	0	98.8	49	135			
1,2-Dibromoethane	0.0232	0.00500	0.0232	0	99.8	70	124			
1,2-Dichlorobenzene	0.0211	0.00500	0.0232	0	91.2	74	120			
1,2-Dichloroethane	0.0231	0.00500	0.0232	0	99.5	72	137			
1,2-Dichloropropane	0.0231	0.00500	0.0232	0	99.7	71	120			
1,3,5-Trimethylbenzene	0.0206	0.00500	0.0232	0	88.8	65	133			
1,3-Dichlorobenzene	0.0213	0.00500	0.0232	0	91.8	72	124			
1,3-Dichloropropane	0.0226	0.00500	0.0232	0	97.6	76	123			
1,4-Dichlorobenzene	0.0213	0.00500	0.0232	0	91.9	72	125			
1-Chlorohexane	0.0207	0.00500	0.0232	0	89.0	60	135			
2,2-Dichloropropane	0.0268	0.00500	0.0232	0	116	67	134			
2-Butanone	0.274	0.0150	0.232	0	118	60	135			
2-Chlorotoluene	0.0210	0.00500	0.0232	0	90.5	69	128			
2-Hexanone	0.268	0.0150	0.232	0	115	50	150			
4-Chlorotoluene	0.0213	0.00500	0.0232	0	91.7	73	126			
4-Methyl-2-pentanone	0.259	0.0150	0.232	0	112	60	135			
Acetone	0.295	0.0500	0.232	0	127	40	141			
Benzene	0.0232	0.00500	0.0232	0	100	75	125			
Bromobenzene	0.0206	0.00500	0.0232	0	89.0	66	121			
Bromochloromethane	0.0237	0.00500	0.0232	0	102	71	127			
Bromodichloromethane	0.0243	0.00500	0.0232	0	105	72	128			
Bromoform	0.0240	0.00500	0.0232	0	103	66	137			
Bromomethane	0.0268	0.00500	0.0232	0	115	45	141			
Carbon disulfide	0.0216	0.0150	0.0232	0	93.0	50	150			
Carbon tetrachloride	0.0247	0.00500	0.0232	0	107	67	133			
Chlorobenzene	0.0221	0.00500	0.0232	0	95.1	75	123			
Chloroethane	0.0246	0.00500	0.0232	0	106	41	141			
Chloroform	0.0241	0.00500	0.0232	0	104	72	124			

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220922A

Sample ID: <b>LCS-107106</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:01:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	0.0268	0.00500	0.0232	0	115	51	129			
cis-1,2-Dichloroethene	0.0236	0.00500	0.0232	0	102	67	125			
cis-1,3-Dichloropropene	0.0241	0.00500	0.0232	0	104	72	126			
Cyclohexane	0.0276	0.0150	0.0232	0	119	40	161			N
Dibromochloromethane	0.0239	0.00500	0.0232	0	103	66	130			
Dibromomethane	0.0246	0.00500	0.0232	0	106	73	128			
Dichlorodifluoromethane	0.0260	0.00500	0.0232	0	112	34	136			
Ethylbenzene	0.0223	0.00500	0.0232	0	96.3	75	125			
Hexachlorobutadiene	0.0209	0.00500	0.0232	0	90.0	53	142			
Isopropylbenzene	0.0224	0.00500	0.0232	0	96.3	77	129			
m,p-Xylene	0.0433	0.00500	0.0464	0	93.3	80	125			
Methyl Acetate	0.0268	0.0150	0.0232	0	116	50	150			
Methyl tert-butyl ether	0.0249	0.00500	0.0232	0	107	68	130			
Methylcyclohexane	0.0242	0.0150	0.0232	0	104	70	130			
Methylene chloride	0.0263	0.00500	0.0232	0	113	63	137			
Naphthalene	0.0225	0.0150	0.0232	0	97.1	51	135			
n-Butylbenzene	0.0215	0.00500	0.0232	0	92.8	65	138			
n-Propylbenzene	0.0216	0.00500	0.0232	0	93.0	63	135			
o-Xylene	0.0229	0.00500	0.0232	0	98.6	77	125			
p-Isopropyltoluene	0.0210	0.00500	0.0232	0	90.4	75	133			
sec-Butylbenzene	0.0210	0.00500	0.0232	0	90.5	63	132			
Styrene	0.0220	0.00500	0.0232	0	94.8	74	128			
tert-Butylbenzene	0.0210	0.00500	0.0232	0	90.7	65	132			
Tetrachloroethene	0.0215	0.00500	0.0232	0	92.6	67	139			
Toluene	0.0244	0.00500	0.0232	0	105	75	125			
trans-1,2-Dichloroethene	0.0229	0.00500	0.0232	0	98.6	66	134			
trans-1,3-Dichloropropene	0.0252	0.00500	0.0232	0	108	65	127			
Trichloroethene	0.0221	0.00500	0.0232	0	95.5	77	124			
Trichlorofluoromethane	0.0245	0.0150	0.0232	0	106	49	139			
Vinyl chloride	0.0248	0.00500	0.0232	0	107	58	126			
Total Xylenes	0.0662	0.00500	0.0696	0	95.1	75	125			
Surr: 1,2-Dichloroethane-d4	50.0		50.00		100	52	149			
Surr: 4-Bromofluorobenzene	50.7		50.00		101	84	118			
Surr: Dibromofluoromethane	51.0		50.00		102	65	135			
Surr: Toluene-d8	49.3		50.00		98.7	84	116			

Sample ID: <b>2209090-11AMS</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:29:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0203	0.00542	0.0252	0	80.7	74	125			

**Qualifiers:**

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS1\_220922A**

Sample ID: <b>2209090-11AMS</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:29:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0207	0.00542	0.0252	0	82.2	68	130			
1,1,2,2-Tetrachloroethane	0.0215	0.00542	0.0252	0	85.5	59	140			
1,1,2-Trichloroethane	0.0237	0.00542	0.0252	0	94.1	62	127			
1,1,2-Trichlorotrifluoroethane	0.0184	0.0163	0.0252	0	73.2	70	130			
1,1-Dichloroethane	0.0216	0.00542	0.0252	0	85.7	73	125			
1,1-Dichloroethene	0.0188	0.00542	0.0252	0	74.6	65	136			
1,1-Dichloropropene	0.0203	0.00542	0.0252	0	80.8	70	135			
1,2,3-Trichlorobenzene	0.0197	0.00542	0.0252	0	78.2	62	133			
1,2,3-Trichloropropane	0.0220	0.00542	0.0252	0	87.6	63	130			
1,2,4-Trichlorobenzene	0.0183	0.00542	0.0252	0	72.7	65	131			
1,2,4-Trimethylbenzene	0.0181	0.00542	0.0252	0	71.8	65	135			
1,2-Dibromo-3-chloropropane	0.0264	0.00542	0.0252	0	105	49	135			
1,2-Dibromoethane	0.0227	0.00542	0.0252	0	90.4	70	124			
1,2-Dichlorobenzene	0.0186	0.00542	0.0252	0	73.8	74	120			
1,2-Dichloroethane	0.0217	0.00542	0.0252	0	86.3	72	137			
1,2-Dichloropropane	0.0207	0.00542	0.0252	0	82.2	71	120			
1,3,5-Trimethylbenzene	0.0173	0.00542	0.0252	0	68.9	65	133			
1,3-Dichlorobenzene	0.0182	0.00542	0.0252	0	72.4	72	124			
1,3-Dichloropropane	0.0215	0.00542	0.0252	0	85.5	76	123			
1,4-Dichlorobenzene	0.0182	0.00542	0.0252	0	72.3	72	125			
1-Chlorohexane	0.0182	0.00542	0.0252	0	72.4	60	135			
2,2-Dichloropropane	0.0234	0.00542	0.0252	0	92.8	67	134			
2-Butanone	0.336	0.0163	0.252	0	134	40	135			
2-Chlorotoluene	0.0180	0.00542	0.0252	0	71.5	69	128			
2-Hexanone	0.315	0.0163	0.252	0	125	50	150			
4-Chlorotoluene	0.0178	0.00542	0.0252	0	70.9	73	126			S
4-Methyl-2-pentanone	0.293	0.0163	0.252	0	117	47	147			
Acetone	0.365	0.0542	0.252	0	145	40	141			S
Benzene	0.0205	0.00542	0.0252	0	81.5	73	126			
Bromobenzene	0.0184	0.00542	0.0252	0	73.2	66	121			
Bromochloromethane	0.0222	0.00542	0.0252	0	88.1	71	127			
Bromodichloromethane	0.0217	0.00542	0.0252	0	86.3	72	128			
Bromoform	0.0236	0.00542	0.0252	0	93.9	66	137			
Bromomethane	0.0238	0.00542	0.0252	0	94.5	45	141			
Carbon disulfide	0.0188	0.0163	0.0252	0	74.6	50	150			
Carbon tetrachloride	0.0214	0.00542	0.0252	0	85.1	67	133			
Chlorobenzene	0.0190	0.00542	0.0252	0	75.5	75	123			
Chloroethane	0.0225	0.00542	0.0252	0	89.3	41	141			
Chloroform	0.0214	0.00542	0.0252	0	85.1	72	124			
Chloromethane	0.0239	0.00542	0.0252	0	95.0	51	129			
cis-1,2-Dichloroethene	0.0209	0.00542	0.0252	0	83.2	67	125			

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220922A

Sample ID: <b>2209090-11AMS</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:29:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.0218	0.00542	0.0252	0	86.7	72	126			
Cyclohexane	0.0248	0.0163	0.0252	0	98.4	40	161			N
Dibromochloromethane	0.0224	0.00542	0.0252	0	89.1	66	130			
Dibromomethane	0.0239	0.00542	0.0252	0	94.9	73	128			
Dichlorodifluoromethane	0.0231	0.00542	0.0252	0	91.9	34	136			
Ethylbenzene	0.0196	0.00542	0.0252	0	78.0	74	127			
Hexachlorobutadiene	0.0176	0.00542	0.0252	0	69.8	53	142			
Isopropylbenzene	0.0191	0.00542	0.0252	0	75.8	77	129			S
m,p-Xylene	0.0375	0.00542	0.0503	0	74.4	79	126			S
Methyl Acetate	0.0318	0.0163	0.0252	0	126	50	150			
Methyl tert-butyl ether	0.0240	0.00542	0.0252	0	95.5	50	135			
Methylcyclohexane	0.0218	0.0163	0.0252	0	86.5	70	130			
Methylene chloride	0.0227	0.00542	0.0252	0	90.3	63	137			
Naphthalene	0.0225	0.0163	0.0252	0	89.5	51	135			
n-Butylbenzene	0.0178	0.00542	0.0252	0	70.8	65	138			
n-Propylbenzene	0.0183	0.00542	0.0252	0	72.7	63	135			
o-Xylene	0.0195	0.00542	0.0252	0	77.6	77	125			
p-Isopropyltoluene	0.0174	0.00542	0.0252	0	69.3	75	133			S
sec-Butylbenzene	0.0177	0.00542	0.0252	0	70.4	63	132			
Styrene	0.0187	0.00542	0.0252	0	74.2	74	128			
tert-Butylbenzene	0.0181	0.00542	0.0252	0	72.1	65	132			
Tetrachloroethene	0.0183	0.00542	0.0252	0	72.9	67	139			
Toluene	0.0211	0.00542	0.0252	0	83.8	71	127			
trans-1,2-Dichloroethene	0.0205	0.00542	0.0252	0	81.3	66	134			
trans-1,3-Dichloropropene	0.0238	0.00542	0.0252	0	94.5	65	127			
Trichloroethene	0.0200	0.00542	0.0252	0	79.7	77	124			
Trichlorofluoromethane	0.0223	0.0163	0.0252	0	88.7	49	139			
Vinyl chloride	0.0221	0.00542	0.0252	0	87.9	58	126			
Total Xylenes	0.0570	0.00542	0.0755	0	75.5	75	125			
Surr: 1,2-Dichloroethane-d4	58.0		54.24		107	52	149			
Surr: 4-Bromofluorobenzene	54.7		54.24		101	84	118			
Surr: Dibromofluoromethane	55.6		54.24		103	65	135			
Surr: Toluene-d8	53.3		54.24		98.3	84	116			

Sample ID: <b>2209090-11AMSD</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:58:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0182	0.00535	0.0248	0	73.3	74	125	10.9	30	S
1,1,1-Trichloroethane	0.0187	0.00535	0.0248	0	75.4	68	130	9.88	30	
1,1,2,2-Tetrachloroethane	0.0201	0.00535	0.0248	0	80.8	59	140	6.97	30	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220922A

Sample ID: <b>2209090-11AMSD</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:58:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	0.0211	0.00535	0.0248	0	84.9	62	127	11.6	30	
1,1,2-Trichlorotrifluoroethane	0.0166	0.0161	0.0248	0	66.8	70	130	10.4	30	S
1,1-Dichloroethane	0.0191	0.00535	0.0248	0	77.0	73	125	12.0	30	
1,1-Dichloroethene	0.0168	0.00535	0.0248	0	67.8	65	136	10.9	30	
1,1-Dichloropropene	0.0179	0.00535	0.0248	0	72.0	70	135	12.7	30	
1,2,3-Trichlorobenzene	0.0177	0.00535	0.0248	0	71.2	62	133	10.7	30	
1,2,3-Trichloropropane	0.0206	0.00535	0.0248	0	82.8	63	130	6.98	30	
1,2,4-Trichlorobenzene	0.0159	0.00535	0.0248	0	64.1	65	131	13.8	30	S
1,2,4-Trimethylbenzene	0.0161	0.00535	0.0248	0	64.6	65	135	11.8	30	
1,2-Dibromo-3-chloropropane	0.0243	0.00535	0.0248	0	97.6	49	135	8.41	30	
1,2-Dibromoethane	0.0208	0.00535	0.0248	0	83.8	70	124	8.82	30	
1,2-Dichlorobenzene	0.0168	0.00535	0.0248	0	67.6	74	120	10.0	30	S
1,2-Dichloroethane	0.0198	0.00535	0.0248	0	79.6	72	137	9.42	30	
1,2-Dichloropropane	0.0188	0.00535	0.0248	0	75.8	71	120	9.40	30	
1,3,5-Trimethylbenzene	0.0156	0.00535	0.0248	0	62.9	65	133	10.4	30	S
1,3-Dichlorobenzene	0.0165	0.00535	0.0248	0	66.3	72	124	10.1	30	S
1,3-Dichloropropane	0.0195	0.00535	0.0248	0	78.6	76	123	9.74	30	
1,4-Dichlorobenzene	0.0163	0.00535	0.0248	0	65.6	72	125	11.0	30	S
1-Chlorohexane	0.0166	0.00535	0.0248	0	66.7	60	135	9.42	30	
2,2-Dichloropropane	0.0205	0.00535	0.0248	0	82.4	67	134	13.2	30	
2-Butanone	0.302	0.0161	0.248	0	122	40	135	10.8	30	
2-Chlorotoluene	0.0161	0.00535	0.0248	0	64.7	69	128	11.3	30	S
2-Hexanone	0.292	0.0161	0.248	0	118	50	150	7.41	30	
4-Chlorotoluene	0.0161	0.00535	0.0248	0	64.7	73	126	10.4	30	S
4-Methyl-2-pentanone	0.271	0.0161	0.248	0	109	47	147	7.86	30	
Acetone	0.329	0.0535	0.248	0	133	40	141	10.3	30	
Benzene	0.0182	0.00535	0.0248	0	73.4	73	126	11.7	30	
Bromobenzene	0.0165	0.00535	0.0248	0	66.3	66	121	11.3	30	
Bromochloromethane	0.0196	0.00535	0.0248	0	79.1	71	127	12.1	30	
Bromodichloromethane	0.0195	0.00535	0.0248	0	78.7	72	128	10.5	30	
Bromoform	0.0210	0.00535	0.0248	0	84.5	66	137	11.8	30	
Bromomethane	0.0223	0.00535	0.0248	0	89.7	45	141	6.59	30	
Carbon disulfide	0.0169	0.0161	0.0248	0	67.8	50	150	10.8	30	
Carbon tetrachloride	0.0190	0.00535	0.0248	0	76.3	67	133	12.2	30	
Chlorobenzene	0.0174	0.00535	0.0248	0	69.8	75	123	9.04	30	S
Chloroethane	0.0200	0.00535	0.0248	0	80.6	41	141	11.5	30	
Chloroform	0.0190	0.00535	0.0248	0	76.7	72	124	11.7	30	
Chloromethane	0.0214	0.00535	0.0248	0	86.1	51	129	11.1	30	
cis-1,2-Dichloroethene	0.0183	0.00535	0.0248	0	73.7	67	125	13.4	30	
cis-1,3-Dichloropropene	0.0191	0.00535	0.0248	0	76.7	72	126	13.4	30	
Cyclohexane	0.0218	0.0161	0.0248	0	87.7	40	161	12.8	30	N

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220922A

Sample ID: <b>2209090-11AMSD</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 12:58:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibromochloromethane	0.0205	0.00535	0.0248	0	82.7	66	130	8.82	30	
Dibromomethane	0.0215	0.00535	0.0248	0	86.4	73	128	10.7	30	
Dichlorodifluoromethane	0.0207	0.00535	0.0248	0	83.2	34	136	11.2	30	
Ethylbenzene	0.0177	0.00535	0.0248	0	71.2	74	127	10.3	30	S
Hexachlorobutadiene	0.0149	0.00535	0.0248	0	59.8	53	142	16.6	30	
Isopropylbenzene	0.0172	0.00535	0.0248	0	69.2	77	129	10.5	30	S
m,p-Xylene	0.0333	0.00535	0.0497	0	67.0	79	126	11.7	30	S
Methyl Acetate	0.0288	0.0161	0.0248	0	116	50	150	10.1	30	
Methyl tert-butyl ether	0.0217	0.00535	0.0248	0	87.3	50	135	10.3	30	
Methylcyclohexane	0.0192	0.0161	0.0248	0	77.3	70	130	12.5	30	
Methylene chloride	0.0199	0.00535	0.0248	0	80.1	63	137	13.2	30	
Naphthalene	0.0204	0.0161	0.0248	0	82.3	51	135	9.69	30	
n-Butylbenzene	0.0159	0.00535	0.0248	0	64.1	65	138	11.2	30	S
n-Propylbenzene	0.0164	0.00535	0.0248	0	65.9	63	135	11.1	30	
o-Xylene	0.0175	0.00535	0.0248	0	70.4	77	125	10.9	30	S
p-Isopropyltoluene	0.0157	0.00535	0.0248	0	63.1	75	133	10.7	30	S
sec-Butylbenzene	0.0159	0.00535	0.0248	0	64.0	63	132	10.8	30	
Styrene	0.0170	0.00535	0.0248	0	68.4	74	128	9.39	30	S
tert-Butylbenzene	0.0161	0.00535	0.0248	0	64.8	65	132	11.9	30	
Tetrachloroethene	0.0169	0.00535	0.0248	0	68.0	67	139	8.25	30	
Toluene	0.0189	0.00535	0.0248	0	76.0	71	127	11.1	30	
trans-1,2-Dichloroethene	0.0181	0.00535	0.0248	0	72.9	66	134	12.2	30	
trans-1,3-Dichloropropene	0.0212	0.00535	0.0248	0	85.2	65	127	11.7	30	
Trichloroethene	0.0178	0.00535	0.0248	0	71.8	77	124	11.6	30	S
Trichlorofluoromethane	0.0200	0.0161	0.0248	0	80.6	49	139	10.8	30	
Vinyl chloride	0.0199	0.00535	0.0248	0	80.2	58	126	10.4	30	
Total Xylenes	0.0508	0.00535	0.0745	0	68.2	75	125	11.5	30	S
Surr: 1,2-Dichloroethane-d4	56.3		53.54		105	52	149	0	0	
Surr: 4-Bromofluorobenzene	53.8		53.54		100	84	118	0	0	
Surr: Dibromofluoromethane	53.4		53.54		99.7	65	135	0	0	
Surr: Toluene-d8	52.5		53.54		98.1	84	116	0	0	

Sample ID: <b>MB-107106</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 1:54:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	<0.00100	0.00500								
1,1,1-Trichloroethane	<0.00100	0.00500								
1,1,1,2,2-Tetrachloroethane	<0.00100	0.00500								
1,1,2-Trichloroethane	<0.00100	0.00500								
1,1,2-Trichlorotrifluoroethane	<0.00500	0.0150								

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220922A

Sample ID: <b>MB-107106</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 1:54:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethane	<0.00100	0.00500								
1,1-Dichloroethene	<0.00100	0.00500								
1,1-Dichloropropene	<0.00100	0.00500								
1,2,3-Trichlorobenzene	<0.00100	0.00500								
1,2,3-Trichloropropane	<0.00100	0.00500								
1,2,4-Trichlorobenzene	<0.00100	0.00500								
1,2,4-Trimethylbenzene	<0.00100	0.00500								
1,2-Dibromo-3-chloropropane	<0.00100	0.00500								
1,2-Dibromoethane	<0.00100	0.00500								
1,2-Dichlorobenzene	<0.00100	0.00500								
1,2-Dichloroethane	<0.00100	0.00500								
1,2-Dichloropropane	<0.00100	0.00500								
1,3,5-Trimethylbenzene	<0.00100	0.00500								
1,3-Dichlorobenzene	<0.00100	0.00500								
1,3-Dichloropropane	<0.00100	0.00500								
1,4-Dichlorobenzene	<0.00100	0.00500								
1-Chlorohexane	<0.00100	0.00500								
2,2-Dichloropropane	<0.00100	0.00500								
2-Butanone	<0.00500	0.0150								
2-Chlorotoluene	<0.00100	0.00500								
2-Hexanone	<0.00500	0.0150								
4-Chlorotoluene	<0.00100	0.00500								
4-Methyl-2-pentanone	<0.00500	0.0150								
Acetone	<0.0150	0.0500								
Benzene	<0.00100	0.00500								
Bromobenzene	<0.00100	0.00500								
Bromochloromethane	<0.00100	0.00500								
Bromodichloromethane	<0.00100	0.00500								
Bromoform	<0.00100	0.00500								
Bromomethane	<0.00100	0.00500								
Carbon disulfide	<0.00500	0.0150								
Carbon tetrachloride	<0.00100	0.00500								
Chlorobenzene	<0.00100	0.00500								
Chloroethane	<0.00100	0.00500								
Chloroform	<0.00100	0.00500								
Chloromethane	<0.00100	0.00500								
cis-1,2-Dichloroethene	<0.00100	0.00500								
cis-1,3-Dichloropropene	<0.00100	0.00500								
Cyclohexane	<0.00500	0.0150								N
Dibromochloromethane	<0.00100	0.00500								
Dibromomethane	<0.00100	0.00500								

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 RL Reporting Limit  
 J Analyte detected between SDL and RL

DF Dilution Factor  
 MDL Method Detection Limit  
 R RPD outside accepted control limits  
 S Spike Recovery outside control limits  
 N Parameter not NELAP certified



**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS1\_220922A**

Sample ID: <b>MB-107106</b>	Batch ID: <b>107106</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 1:54:00 PM</b>	Prep Date: <b>9/22/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	<0.00100	0.00500								
Ethylbenzene	<0.00100	0.00500								
Hexachlorobutadiene	<0.00100	0.00500								
Isopropylbenzene	<0.00100	0.00500								
m,p-Xylene	<0.00100	0.00500								
Methyl Acetate	<0.00500	0.0150								
Methyl tert-butyl ether	<0.00100	0.00500								
Methylcyclohexane	<0.00500	0.0150								
Methylene chloride	<0.00500	0.00500								
Naphthalene	<0.00500	0.0150								
n-Butylbenzene	<0.00100	0.00500								
n-Propylbenzene	<0.00100	0.00500								
o-Xylene	<0.00100	0.00500								
p-Isopropyltoluene	<0.00100	0.00500								
sec-Butylbenzene	<0.00100	0.00500								
Styrene	<0.00100	0.00500								
tert-Butylbenzene	<0.00100	0.00500								
Tetrachloroethene	<0.00100	0.00500								
Toluene	0.00110	0.00500								
trans-1,2-Dichloroethene	<0.00100	0.00500								
trans-1,3-Dichloropropene	<0.00100	0.00500								
Trichloroethene	<0.00100	0.00500								
Trichlorofluoromethane	<0.00500	0.0150								
Vinyl chloride	<0.00100	0.00500								
Total Xylenes	<0.00100	0.00500								
Surr: 1,2-Dichloroethane-d4	46.4		50.00		92.9	52	149			
Surr: 4-Bromofluorobenzene	51.4		50.00		103	84	118			
Surr: Dibromofluoromethane	49.7		50.00		99.4	65	135			
Surr: Toluene-d8	52.0		50.00		104	84	116			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS1\_220922A

Sample ID: <b>ICV-220922</b>	Batch ID: <b>R123170</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>ICV</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 11:33:00 AM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0454	0.00500	0.0464	0	97.8	70	130			
1,1,1-Trichloroethane	0.0453	0.00500	0.0464	0	97.6	70	130			
1,1,2,2-Tetrachloroethane	0.0412	0.00500	0.0464	0	88.7	70	130			
1,1,2-Trichloroethane	0.0459	0.00500	0.0464	0	98.9	70	130			
1,1,2-Trichlorotrifluoroethane	0.0398	0.0150	0.0464	0	85.8	70	130			
1,1-Dichloroethane	0.0458	0.00500	0.0464	0	98.6	70	130			
1,1-Dichloroethene	0.0404	0.00500	0.0464	0	87.0	70	130			
1,1-Dichloropropene	0.0447	0.00500	0.0464	0	96.3	70	130			
1,2,3-Trichlorobenzene	0.0448	0.00500	0.0464	0	96.5	70	130			
1,2,3-Trichloropropane	0.0408	0.00500	0.0464	0	87.9	70	130			
1,2,4-Trichlorobenzene	0.0442	0.00500	0.0464	0	95.3	70	130			
1,2,4-Trimethylbenzene	0.0437	0.00500	0.0464	0	94.2	70	130			
1,2-Dibromo-3-chloropropane	0.0427	0.00500	0.0464	0	92.1	70	130			
1,2-Dibromoethane	0.0444	0.00500	0.0464	0	95.7	70	130			
1,2-Dichlorobenzene	0.0421	0.00500	0.0464	0	90.8	70	130			
1,2-Dichloroethane	0.0439	0.00500	0.0464	0	94.6	70	130			
1,2-Dichloropropane	0.0445	0.00500	0.0464	0	95.9	70	130			
1,3,5-Trimethylbenzene	0.0418	0.00500	0.0464	0	90.1	70	130			
1,3-Dichlorobenzene	0.0432	0.00500	0.0464	0	93.2	70	130			
1,3-Dichloropropane	0.0437	0.00500	0.0464	0	94.2	70	130			
1,4-Dichlorobenzene	0.0426	0.00500	0.0464	0	91.8	70	130			
1-Chlorohexane	0.0397	0.00500	0.0464	0	85.5	70	130			
2,2-Dichloropropane	0.0517	0.00500	0.0464	0	111	70	130			
2-Butanone	0.510	0.0150	0.464	0	110	70	130			
2-Chlorotoluene	0.0416	0.00500	0.0464	0	89.6	70	130			
2-Hexanone	0.520	0.0150	0.464	0	112	70	130			
4-Chlorotoluene	0.0426	0.00500	0.0464	0	91.9	70	130			
4-Methyl-2-pentanone	0.507	0.0150	0.464	0	109	70	130			
Acetone	0.539	0.0500	0.464	0	116	70	130			
Benzene	0.0452	0.00500	0.0464	0	97.4	70	130			
Bromobenzene	0.0415	0.00500	0.0464	0	89.4	70	130			
Bromochloromethane	0.0461	0.00500	0.0464	0	99.4	70	130			
Bromodichloromethane	0.0469	0.00500	0.0464	0	101	70	130			
Bromoform	0.0484	0.00500	0.0464	0	104	70	130			
Bromomethane	0.0500	0.00500	0.0464	0	108	70	130			
Carbon disulfide	0.0412	0.0150	0.0464	0	88.7	70	130			
Carbon tetrachloride	0.0469	0.00500	0.0464	0	101	70	130			
Chlorobenzene	0.0436	0.00500	0.0464	0	93.9	70	130			
Chloroethane	0.0468	0.00500	0.0464	0	101	70	130			
Chloroform	0.0462	0.00500	0.0464	0	99.5	70	130			
Chloromethane	0.0494	0.00500	0.0464	0	106	70	130			

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS1\_220922A**

Sample ID: <b>ICV-220922</b>	Batch ID: <b>R123170</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>ICV</b>	Run ID: <b>GCMS1_220922A</b>	Analysis Date: <b>9/22/2022 11:33:00 AM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	0.0450	0.00500	0.0464	0	97.0	70	130			
cis-1,3-Dichloropropene	0.0471	0.00500	0.0464	0	102	70	130			
Cyclohexane	0.0541	0.0150	0.0464	0	117	70	130			N
Dibromochloromethane	0.0473	0.00500	0.0464	0	102	70	130			
Dibromomethane	0.0463	0.00500	0.0464	0	99.8	70	130			
Dichlorodifluoromethane	0.0482	0.00500	0.0464	0	104	70	130			
Ethylbenzene	0.0449	0.00500	0.0464	0	96.7	70	130			
Hexachlorobutadiene	0.0417	0.00500	0.0464	0	89.9	70	130			
Isopropylbenzene	0.0449	0.00500	0.0464	0	96.8	70	130			
m,p-Xylene	0.0885	0.00500	0.0928	0	95.4	70	130			
Methyl Acetate	0.0501	0.0150	0.0464	0	108	70	130			
Methyl tert-butyl ether	0.0468	0.00500	0.0464	0	101	70	130			
Methylcyclohexane	0.0474	0.0150	0.0464	0	102	70	130			
Methylene chloride	0.0479	0.00500	0.0464	0	103	70	130			
Naphthalene	0.0433	0.0150	0.0464	0	93.4	70	130			
n-Butylbenzene	0.0436	0.00500	0.0464	0	93.9	70	130			
n-Propylbenzene	0.0431	0.00500	0.0464	0	92.9	70	130			
o-Xylene	0.0456	0.00500	0.0464	0	98.2	70	130			
p-Isopropyltoluene	0.0425	0.00500	0.0464	0	91.5	70	130			
sec-Butylbenzene	0.0421	0.00500	0.0464	0	90.8	70	130			
Styrene	0.0455	0.00500	0.0464	0	98.0	70	130			
tert-Butylbenzene	0.0421	0.00500	0.0464	0	90.8	70	130			
Tetrachloroethene	0.0442	0.00500	0.0464	0	95.3	70	130			
Toluene	0.0467	0.00500	0.0464	0	101	70	130			
trans-1,2-Dichloroethene	0.0444	0.00500	0.0464	0	95.7	70	130			
trans-1,3-Dichloropropene	0.0479	0.00500	0.0464	0	103	70	130			
Trichloroethene	0.0439	0.00500	0.0464	0	94.7	70	130			
Trichlorofluoromethane	0.0456	0.0150	0.0464	0	98.3	70	130			
Vinyl chloride	0.0455	0.00500	0.0464	0	98.0	70	130			
Total Xylenes	0.134	0.00500	0.139	0	96.3	70	130			
Surr: 1,2-Dichloroethane-d4	46.5		50.00		92.9	52	149			
Surr: 4-Bromofluorobenzene	49.4		50.00		98.8	84	118			
Surr: Dibromofluoromethane	48.4		50.00		96.7	65	135			
Surr: Toluene-d8	47.7		50.00		95.4	84	116			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220617A

Sample ID: <b>DCS-105862</b>	Batch ID: <b>105862</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS</b>	Run ID: <b>GCMS2_220617A</b>	Analysis Date: <b>6/17/2022 3:48:00 PM</b>	Prep Date: <b>6/17/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.00177	0.00500	0.00232	0	76.3	10	400	0	0	
1,1,1-Trichloroethane	0.00224	0.00500	0.00232	0	96.6	10	400	0	0	
1,1,2,2-Tetrachloroethane	0.00200	0.00500	0.00232	0	86.2	10	400	0	0	
1,1,2-Trichloroethane	0.00210	0.00500	0.00232	0	90.5	10	400	0	0	
1,1,2-Trichlorotrifluoroethane	0.00235	0.0150	0.00232	0	101	10	400	0	0	
1,1-Dichloroethane	0.00238	0.00500	0.00232	0	103	10	400	0	0	
1,1-Dichloroethene	0.00229	0.00500	0.00232	0	98.7	10	400	0	0	
1,1-Dichloropropene	0.00230	0.00500	0.00232	0	99.1	10	400	0	0	
1,2,3-Trichlorobenzene	0.00419	0.00500	0.00232	0	181	10	400	0	0	
1,2,3-Trichloropropane	0.00194	0.00500	0.00232	0	83.6	10	400	0	0	
1,2,4-Trichlorobenzene	0.00369	0.00500	0.00232	0	159	10	400	0	0	
1,2,4-Trimethylbenzene	0.00173	0.00500	0.00232	0	74.6	10	400	0	0	
1,2-Dibromo-3-chloropropane	0.000520	0.00500	0.00232	0	22.4	10	400	0	0	
1,2-Dibromoethane	0.00179	0.00500	0.00232	0	77.2	10	400	0	0	
1,2-Dichlorobenzene	0.00195	0.00500	0.00232	0	84.1	10	400	0	0	
1,2-Dichloroethane	0.00231	0.00500	0.00232	0	99.6	10	400	0	0	
1,2-Dichloropropane	0.00229	0.00500	0.00232	0	98.7	10	400	0	0	
1,3,5-Trimethylbenzene	0.00192	0.00500	0.00232	0	82.8	10	400	0	0	
1,3-Dichlorobenzene	0.00186	0.00500	0.00232	0	80.2	10	400	0	0	
1,3-Dichloropropane	0.00200	0.00500	0.00232	0	86.2	10	400	0	0	
1,4-Dichlorobenzene	0.00240	0.00500	0.00232	0	103	10	400	0	0	
1-Chlorohexane	0.00268	0.00500	0.00232	0	116	10	400	0	0	
2,2-Dichloropropane	0.00233	0.00500	0.00232	0	100	10	400	0	0	
2-Butanone	0.0107	0.0150	0.0116	0	92.0	10	400	0	0	
2-Chlorotoluene	0.00192	0.00500	0.00232	0	82.8	10	400	0	0	
2-Hexanone	0.00785	0.0150	0.0116	0	67.7	10	400	0	0	
4-Chlorotoluene	0.00160	0.00500	0.00232	0	69.0	10	400	0	0	
4-Methyl-2-pentanone	0.00946	0.0150	0.0116	0	81.6	10	400	0	0	
Acetone	0.0100	0.0500	0.0116	0	86.4	10	400	0	0	
Benzene	0.00242	0.00500	0.00232	0	104	10	400	0	0	
Bromobenzene	0.00199	0.00500	0.00232	0	85.8	10	400	0	0	
Bromochloromethane	0.00222	0.00500	0.00232	0	95.7	10	400	0	0	
Bromodichloromethane	0.00207	0.00500	0.00232	0	89.2	10	400	0	0	
Bromoform	0.00131	0.00500	0.00232	0	56.5	10	400	0	0	
Carbon disulfide	0.00229	0.0150	0.00232	0	98.7	10	400	0	0	
Carbon tetrachloride	0.00215	0.00500	0.00232	0	92.7	10	400	0	0	
Chlorobenzene	0.00204	0.00500	0.00232	0	87.9	10	400	0	0	
Chloroethane	0.00253	0.00500	0.00232	0	109	10	400	0	0	
Chloroform	0.00234	0.00500	0.00232	0	101	10	400	0	0	
Chloromethane	0.00223	0.00500	0.00232	0	96.1	10	400	0	0	
cis-1,2-Dichloroethene	0.00233	0.00500	0.00232	0	100	10	400	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220617A

Sample ID: <b>DCS-105862</b>	Batch ID: <b>105862</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS</b>	Run ID: <b>GCMS2_220617A</b>	Analysis Date: <b>6/17/2022 3:48:00 PM</b>	Prep Date: <b>6/17/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.00198	0.00500	0.00232	0	85.3	10	400	0	0	
Cyclohexane	0.00219	0.0150	0.00232	0	94.4	10	400	0	0	N
Dibromochloromethane	0.00166	0.00500	0.00232	0	71.6	10	400	0	0	
Dibromomethane	0.00216	0.00500	0.00232	0	93.1	10	400	0	0	
Dichlorodifluoromethane	0.00189	0.00500	0.00232	0	81.5	10	400	0	0	
Ethylbenzene	0.00188	0.00500	0.00232	0	81.0	10	400	0	0	
Hexachlorobutadiene	0.00309	0.00500	0.00232	0	133	10	400	0	0	
Isopropylbenzene	0.00195	0.00500	0.00232	0	84.1	10	400	0	0	
m,p-Xylene	0.00397	0.00500	0.00464	0	85.6	10	400	0	0	
Methyl Acetate	0.00218	0.0150	0.00232	0	94.0	10	400	0	0	
Methyl tert-butyl ether	0.00236	0.00500	0.00232	0	102	10	400	0	0	
Methylcyclohexane	0.00211	0.0150	0.00232	0	90.9	10	400	0	0	
Methylene chloride	0.00164	0.00500	0.00232	0	70.7	10	400	0	0	
Naphthalene	0.00626	0.0150	0.00232	0	270	10	400	0	0	
n-Butylbenzene	0.00312	0.00500	0.00232	0	134	10	400	0	0	
n-Propylbenzene	0.00203	0.00500	0.00232	0	87.5	10	400	0	0	
o-Xylene	0.00185	0.00500	0.00232	0	79.7	10	400	0	0	
p-Isopropyltoluene	0.00199	0.00500	0.00232	0	85.8	10	400	0	0	
sec-Butylbenzene	0.00228	0.00500	0.00232	0	98.3	10	400	0	0	
Styrene	0.00148	0.00500	0.00232	0	63.8	10	400	0	0	
tert-Butylbenzene	0.00211	0.00500	0.00232	0	90.9	10	400	0	0	
Tetrachloroethene	0.00326	0.00500	0.00232	0	141	10	400	0	0	
Toluene	0.00229	0.00500	0.00232	0	98.7	10	400	0	0	
trans-1,2-Dichloroethene	0.00240	0.00500	0.00232	0	103	10	400	0	0	
trans-1,3-Dichloropropene	0.00188	0.00500	0.00232	0	81.0	10	400	0	0	
Trichloroethene	0.00213	0.00500	0.00232	0	91.8	10	400	0	0	
Trichlorofluoromethane	0.00230	0.0150	0.00232	0	99.1	10	400	0	0	
Vinyl chloride	0.00231	0.00500	0.00232	0	99.6	10	400	0	0	
Total Xylenes	0.00582	0.00500	0.00696	0	83.6	10	400	0	0	

Sample ID: <b>DCS2-105862</b>	Batch ID: <b>105862</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS2</b>	Run ID: <b>GCMS2_220617A</b>	Analysis Date: <b>6/17/2022 4:16:00 PM</b>	Prep Date: <b>6/17/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.00396	0.00500	0.00464	0	85.3	10	400	0	0	
1,1,1-Trichloroethane	0.00480	0.00500	0.00464	0	103	10	400	0	0	
1,1,2,2-Tetrachloroethane	0.00419	0.00500	0.00464	0	90.3	10	400	0	0	
1,1,2-Trichloroethane	0.00489	0.00500	0.00464	0	105	10	400	0	0	
1,1,2-Trichlorotrifluoroethane	0.00497	0.0150	0.00464	0	107	10	400	0	0	
1,1-Dichloroethane	0.00487	0.00500	0.00464	0	105	10	400	0	0	
1,1-Dichloroethene	0.00484	0.00500	0.00464	0	104	10	400	0	0	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220617A

Sample ID: <b>DCS2-105862</b>	Batch ID: <b>105862</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS2</b>	Run ID: <b>GCMS2_220617A</b>	Analysis Date: <b>6/17/2022 4:16:00 PM</b>	Prep Date: <b>6/17/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	0.00488	0.00500	0.00464	0	105	10	400	0	0	
1,2,3-Trichlorobenzene	0.00534	0.00500	0.00464	0	115	10	400	0	0	
1,2,3-Trichloropropane	0.00397	0.00500	0.00464	0	85.6	10	400	0	0	
1,2,4-Trichlorobenzene	0.00422	0.00500	0.00464	0	90.9	10	400	0	0	
1,2,4-Trimethylbenzene	0.00381	0.00500	0.00464	0	82.1	10	400	0	0	
1,2-Dibromo-3-chloropropane	0.00252	0.00500	0.00464	0	54.3	10	400	0	0	
1,2-Dibromoethane	0.00432	0.00500	0.00464	0	93.1	10	400	0	0	
1,2-Dichlorobenzene	0.00421	0.00500	0.00464	0	90.7	10	400	0	0	
1,2-Dichloroethane	0.00483	0.00500	0.00464	0	104	10	400	0	0	
1,2-Dichloropropane	0.00486	0.00500	0.00464	0	105	10	400	0	0	
1,3,5-Trimethylbenzene	0.00422	0.00500	0.00464	0	90.9	10	400	0	0	
1,3-Dichlorobenzene	0.00409	0.00500	0.00464	0	88.1	10	400	0	0	
1,3-Dichloropropane	0.00452	0.00500	0.00464	0	97.4	10	400	0	0	
1,4-Dichlorobenzene	0.00506	0.00500	0.00464	0	109	10	400	0	0	
1-Chlorohexane	0.00469	0.00500	0.00464	0	101	10	400	0	0	
2,2-Dichloropropane	0.00484	0.00500	0.00464	0	104	10	400	0	0	
2-Butanone	0.0230	0.0150	0.0232	0	99.1	10	400	0	0	
2-Chlorotoluene	0.00398	0.00500	0.00464	0	85.8	10	400	0	0	
2-Hexanone	0.0180	0.0150	0.0232	0	77.8	10	400	0	0	
4-Chlorotoluene	0.00404	0.00500	0.00464	0	87.1	10	400	0	0	
4-Methyl-2-pentanone	0.0213	0.0150	0.0232	0	91.6	10	400	0	0	
Acetone	0.0217	0.0500	0.0232	0	93.7	10	400	0	0	
Benzene	0.00502	0.00500	0.00464	0	108	10	400	0	0	
Bromobenzene	0.00441	0.00500	0.00464	0	95.0	10	400	0	0	
Bromochloromethane	0.00520	0.00500	0.00464	0	112	10	400	0	0	
Bromodichloromethane	0.00435	0.00500	0.00464	0	93.8	10	400	0	0	
Bromoform	0.00329	0.00500	0.00464	0	70.9	10	400	0	0	
Bromomethane	0.00337	0.00500	0.00464	0	72.6	10	400	0	0	
Carbon disulfide	0.00479	0.0150	0.00464	0	103	10	400	0	0	
Carbon tetrachloride	0.00431	0.00500	0.00464	0	92.9	10	400	0	0	
Chlorobenzene	0.00462	0.00500	0.00464	0	99.6	10	400	0	0	
Chloroethane	0.00548	0.00500	0.00464	0	118	10	400	0	0	
Chloroform	0.00504	0.00500	0.00464	0	109	10	400	0	0	
Chloromethane	0.00468	0.00500	0.00464	0	101	10	400	0	0	
cis-1,2-Dichloroethene	0.00520	0.00500	0.00464	0	112	10	400	0	0	
cis-1,3-Dichloropropene	0.00441	0.00500	0.00464	0	95.0	10	400	0	0	
Cyclohexane	0.00479	0.0150	0.00464	0	103	10	400	0	0	N
Dibromochloromethane	0.00380	0.00500	0.00464	0	81.9	10	400	0	0	
Dibromomethane	0.00491	0.00500	0.00464	0	106	10	400	0	0	
Dichlorodifluoromethane	0.00399	0.00500	0.00464	0	86.0	10	400	0	0	
Ethylbenzene	0.00426	0.00500	0.00464	0	91.8	10	400	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS2\_220617A**

Sample ID: <b>DCS2-105862</b>	Batch ID: <b>105862</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>DCS2</b>	Run ID: <b>GCMS2_220617A</b>	Analysis Date: <b>6/17/2022 4:16:00 PM</b>	Prep Date: <b>6/17/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	0.00510	0.00500	0.00464	0	110	10	400	0	0	
Isopropylbenzene	0.00454	0.00500	0.00464	0	97.8	10	400	0	0	
m,p-Xylene	0.00907	0.00500	0.00928	0	97.7	10	400	0	0	
Methyl Acetate	0.00423	0.0150	0.00464	0	91.2	10	400	0	0	
Methyl tert-butyl ether	0.00502	0.00500	0.00464	0	108	10	400	0	0	
Methylcyclohexane	0.00447	0.0150	0.00464	0	96.3	10	400	0	0	
Methylene chloride	0.00442	0.00500	0.00464	0	95.3	10	400	0	0	
Naphthalene	0.00644	0.0150	0.00464	0	139	10	400	0	0	
n-Butylbenzene	0.00486	0.00500	0.00464	0	105	10	400	0	0	
n-Propylbenzene	0.00426	0.00500	0.00464	0	91.8	10	400	0	0	
o-Xylene	0.00414	0.00500	0.00464	0	89.2	10	400	0	0	
p-Isopropyltoluene	0.00421	0.00500	0.00464	0	90.7	10	400	0	0	
sec-Butylbenzene	0.00431	0.00500	0.00464	0	92.9	10	400	0	0	
Styrene	0.00415	0.00500	0.00464	0	89.4	10	400	0	0	
tert-Butylbenzene	0.00436	0.00500	0.00464	0	94.0	10	400	0	0	
Tetrachloroethene	0.00555	0.00500	0.00464	0	120	10	400	0	0	
Toluene	0.00479	0.00500	0.00464	0	103	10	400	0	0	
trans-1,2-Dichloroethene	0.00488	0.00500	0.00464	0	105	10	400	0	0	
trans-1,3-Dichloropropene	0.00418	0.00500	0.00464	0	90.1	10	400	0	0	
Trichloroethene	0.00488	0.00500	0.00464	0	105	10	400	0	0	
Trichlorofluoromethane	0.00487	0.0150	0.00464	0	105	10	400	0	0	
Vinyl chloride	0.00484	0.00500	0.00464	0	104	10	400	0	0	
Total Xylenes	0.0132	0.00500	0.0139	0	94.9	10	400	0	0	

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

The QC data in batch 107035 applies to the following samples: 2209090-04A, 2209090-06A, 2209090-10A, 2209090-51A, 2209090-52A

Sample ID: <b>LCS-107035</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 4:07:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0173	0.00500	0.0232	0	74.7	74	125			
1,1,1-Trichloroethane	0.0174	0.00500	0.0232	0	74.8	68	130			
1,1,2,2-Tetrachloroethane	0.0160	0.00500	0.0232	0	69.0	59	140			
1,1,2-Trichloroethane	0.0179	0.00500	0.0232	0	77.0	62	127			
1,1,2-Trichlorotrifluoroethane	0.0181	0.0150	0.0232	0	78.0	57	135			
1,1-Dichloroethane	0.0190	0.00500	0.0232	0	81.9	73	125			
1,1-Dichloroethene	0.0165	0.00500	0.0232	0	71.1	65	136			
1,1-Dichloropropene	0.0176	0.00500	0.0232	0	75.9	70	135			
1,2,3-Trichlorobenzene	0.0186	0.00500	0.0232	0	80.0	62	133			
1,2,3-Trichloropropane	0.0160	0.00500	0.0232	0	69.0	63	130			
1,2,4-Trichlorobenzene	0.0178	0.00500	0.0232	0	76.6	65	131			
1,2,4-Trimethylbenzene	0.0173	0.00500	0.0232	0	74.4	65	135			
1,2-Dibromo-3-chloropropane	0.0115	0.00500	0.0232	0	49.6	49	135			
1,2-Dibromoethane	0.0175	0.00500	0.0232	0	75.3	70	124			
1,2-Dichlorobenzene	0.0190	0.00500	0.0232	0	81.7	74	120			
1,2-Dichloroethane	0.0163	0.00500	0.0232	0	70.3	72	137			S
1,2-Dichloropropane	0.0183	0.00500	0.0232	0	78.7	71	120			
1,3,5-Trimethylbenzene	0.0181	0.00500	0.0232	0	77.9	65	133			
1,3-Dichlorobenzene	0.0185	0.00500	0.0232	0	79.7	72	124			
1,3-Dichloropropane	0.0170	0.00500	0.0232	0	73.1	76	123			S
1,4-Dichlorobenzene	0.0200	0.00500	0.0232	0	86.0	72	125			
1-Chlorohexane	0.0161	0.00500	0.0232	0	69.4	60	135			
2,2-Dichloropropane	0.0179	0.00500	0.0232	0	77.2	67	134			
2-Butanone	0.152	0.0150	0.232	0	65.3	60	135			
2-Chlorotoluene	0.0164	0.00500	0.0232	0	70.6	69	128			
2-Hexanone	0.153	0.0150	0.232	0	65.9	50	150			
4-Chlorotoluene	0.0170	0.00500	0.0232	0	73.4	73	126			
4-Methyl-2-pentanone	0.159	0.0150	0.232	0	68.7	60	135			
Acetone	0.144	0.0500	0.232	0	62.1	40	141			
Benzene	0.0193	0.00500	0.0232	0	83.1	73	126			
Bromobenzene	0.0185	0.00500	0.0232	0	79.9	66	121			
Bromochloromethane	0.0197	0.00500	0.0232	0	84.8	71	127			
Bromodichloromethane	0.0174	0.00500	0.0232	0	74.8	72	128			
Bromoform	0.0162	0.00500	0.0232	0	69.9	66	137			
Bromomethane	0.0177	0.00500	0.0232	0	76.3	45	141			
Carbon disulfide	0.0158	0.0150	0.0232	0	67.9	50	150			
Carbon tetrachloride	0.0165	0.00500	0.0232	0	71.2	67	133			
Chlorobenzene	0.0185	0.00500	0.0232	0	79.6	75	123			
Chloroethane	0.0202	0.00500	0.0232	0	87.1	41	141			
Chloroform	0.0185	0.00500	0.0232	0	79.7	72	124			

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified



CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

Sample ID: <b>LCS-107035</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 4:07:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	0.0174	0.00500	0.0232	0	75.0	51	129			
cis-1,2-Dichloroethene	0.0195	0.00500	0.0232	0	84.2	67	125			
cis-1,3-Dichloropropene	0.0168	0.00500	0.0232	0	72.5	72	126			
Cyclohexane	0.0171	0.0150	0.0232	0	73.5	40	158			N
Dibromochloromethane	0.0169	0.00500	0.0232	0	73.0	66	130			
Dibromomethane	0.0181	0.00500	0.0232	0	78.0	73	128			
Dichlorodifluoromethane	0.0131	0.00500	0.0232	0	56.6	34	136			
Ethylbenzene	0.0178	0.00500	0.0232	0	76.9	74	127			
Hexachlorobutadiene	0.0190	0.00500	0.0232	0	81.7	53	142			
Isopropylbenzene	0.0189	0.00500	0.0232	0	81.3	77	129			
m,p-Xylene	0.0366	0.00500	0.0464	0	79.0	79	126			
Methyl Acetate	0.0161	0.0150	0.0232	0	69.5	50	150			
Methyl tert-butyl ether	0.0192	0.00500	0.0232	0	82.6	50	135			
Methylcyclohexane	0.0163	0.0150	0.0232	0	70.4	50	150			
Methylene chloride	0.0220	0.00500	0.0232	0	94.9	63	137			
Naphthalene	0.0129	0.0150	0.0232	0	55.4	51	135			
n-Butylbenzene	0.0171	0.00500	0.0232	0	73.8	65	138			
n-Propylbenzene	0.0174	0.00500	0.0232	0	75.2	63	135			
o-Xylene	0.0183	0.00500	0.0232	0	79.1	77	125			
p-Isopropyltoluene	0.0179	0.00500	0.0232	0	77.0	75	133			
sec-Butylbenzene	0.0176	0.00500	0.0232	0	75.9	63	132			
Styrene	0.0180	0.00500	0.0232	0	77.5	74	128			
tert-Butylbenzene	0.0180	0.00500	0.0232	0	77.4	65	132			
Tetrachloroethene	0.0198	0.00500	0.0232	0	85.2	67	139			
Toluene	0.0186	0.00500	0.0232	0	80.3	71	127			
trans-1,2-Dichloroethene	0.0194	0.00500	0.0232	0	83.6	66	134			
trans-1,3-Dichloropropene	0.0166	0.00500	0.0232	0	71.5	65	127			
Trichloroethene	0.0181	0.00500	0.0232	0	77.9	77	124			
Trichlorofluoromethane	0.0171	0.0150	0.0232	0	73.5	49	139			
Vinyl chloride	0.0172	0.00500	0.0232	0	74.1	58	126			
Xylenes, Total	0.0550	0.00500	0.0696	0	79.0	75	125			
Surr: 1,2-Dichloroethane-d4	43.8		50.00		87.5	52	149			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.1	84	118			
Surr: Dibromofluoromethane	49.9		50.00		99.8	65	135			
Surr: Toluene-d8	49.4		50.00		98.7	84	116			

Sample ID: <b>2209090-10AMS</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 4:38:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0218	0.00580	0.0269	0	80.9	74	125			

**Qualifiers:**

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

Sample ID: <b>2209090-10AMS</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 4:38:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	0.0214	0.00580	0.0269	0	79.4	68	130			
1,1,2,2-Tetrachloroethane	0.0237	0.00580	0.0269	0	88.1	59	140			
1,1,2-Trichloroethane	0.0251	0.00580	0.0269	0	93.3	62	127			
1,1,2-Trichlorotrifluoroethane	0.0223	0.0174	0.0269	0	82.8	57	135			
1,1-Dichloroethane	0.0235	0.00580	0.0269	0	87.2	73	125			
1,1-Dichloroethene	0.0207	0.00580	0.0269	0	77.1	65	136			
1,1-Dichloropropene	0.0215	0.00580	0.0269	0	79.9	70	135			
1,2,3-Trichlorobenzene	0.0227	0.00580	0.0269	0	84.5	62	133			
1,2,3-Trichloropropane	0.0241	0.00580	0.0269	0	89.7	63	130			
1,2,4-Trichlorobenzene	0.0224	0.00580	0.0269	0	83.1	65	131			
1,2,4-Trimethylbenzene	0.0203	0.00580	0.0269	0	75.4	65	135			
1,2-Dibromo-3-chloropropane	0.0193	0.00580	0.0269	0	71.8	49	135			
1,2-Dibromoethane	0.0248	0.00580	0.0269	0	92.0	70	124			
1,2-Dichlorobenzene	0.0231	0.00580	0.0269	0	85.9	74	120			
1,2-Dichloroethane	0.0221	0.00580	0.0269	0	82.2	72	137			
1,2-Dichloropropane	0.0230	0.00580	0.0269	0	85.3	71	120			
1,3,5-Trimethylbenzene	0.0215	0.00580	0.0269	0	80.0	65	133			
1,3-Dichlorobenzene	0.0217	0.00580	0.0269	0	80.8	72	124			
1,3-Dichloropropane	0.0236	0.00580	0.0269	0	87.6	76	123			
1,4-Dichlorobenzene	0.0225	0.00580	0.0269	0	83.5	72	125			
1-Chlorohexane	0.0189	0.00580	0.0269	0	70.1	60	135			
2,2-Dichloropropane	0.0210	0.00580	0.0269	0	77.9	67	134			
2-Butanone	0.264	0.0174	0.269	0	98.2	60	135			
2-Chlorotoluene	0.0201	0.00580	0.0269	0	74.8	69	128			
2-Hexanone	0.270	0.0174	0.269	0	100	50	150			
4-Chlorotoluene	0.0204	0.00580	0.0269	0	75.9	73	126			
4-Methyl-2-pentanone	0.258	0.0174	0.269	0	95.7	60	135			
Acetone	0.267	0.0580	0.269	0	99.0	40	141			
Benzene	0.0234	0.00580	0.0269	0	87.1	73	126			
Bromobenzene	0.0234	0.00580	0.0269	0	87.0	66	121			
Bromochloromethane	0.0272	0.00580	0.0269	0	101	71	127			
Bromodichloromethane	0.0220	0.00580	0.0269	0	81.8	72	128			
Bromoform	0.0237	0.00580	0.0269	0	88.1	66	137			
Bromomethane	0.0219	0.00580	0.0269	0	81.5	45	141			
Carbon disulfide	0.0193	0.0174	0.0269	0	71.6	50	150			
Carbon tetrachloride	0.0198	0.00580	0.0269	0	73.4	67	133			
Chlorobenzene	0.0226	0.00580	0.0269	0	84.1	75	123			
Chloroethane	0.0240	0.00580	0.0269	0	89.4	41	141			
Chloroform	0.0236	0.00580	0.0269	0	87.6	72	124			
Chloromethane	0.0211	0.00580	0.0269	0	78.4	51	129			
cis-1,2-Dichloroethene	0.0240	0.00580	0.0269	0	89.4	67	125			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

Sample ID: <b>2209090-10AMS</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MS</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 4:38:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	0.0225	0.00580	0.0269	0	83.5	72	126			
Cyclohexane	0.0219	0.0174	0.0269	0	81.2	40	158			N
Dibromochloromethane	0.0227	0.00580	0.0269	0	84.5	66	130			
Dibromomethane	0.0251	0.00580	0.0269	0	93.2	73	128			
Dichlorodifluoromethane	0.0156	0.00580	0.0269	0	58.0	34	136			
Ethylbenzene	0.0216	0.00580	0.0269	0	80.4	74	127			
Hexachlorobutadiene	0.0220	0.00580	0.0269	0	81.7	53	142			
Isopropylbenzene	0.0231	0.00580	0.0269	0	85.9	77	129			
m,p-Xylene	0.0444	0.00580	0.0538	0	82.5	79	126			
Methyl Acetate	0.0278	0.0174	0.0269	0	103	50	150			
Methyl tert-butyl ether	0.0266	0.00580	0.0269	0	98.8	50	135			
Methylcyclohexane	0.0199	0.0174	0.0269	0	73.9	50	150			
Methylene chloride	0.0268	0.00580	0.0269	0.00699	73.7	63	137			
Naphthalene	0.0206	0.0174	0.0269	0	76.5	51	135			
n-Butylbenzene	0.0195	0.00580	0.0269	0	72.6	65	138			
n-Propylbenzene	0.0213	0.00580	0.0269	0	79.1	63	135			
o-Xylene	0.0227	0.00580	0.0269	0	84.2	77	125			
p-Isopropyltoluene	0.0219	0.00580	0.0269	0	81.6	75	133			
sec-Butylbenzene	0.0214	0.00580	0.0269	0	79.4	63	132			
Styrene	0.0222	0.00580	0.0269	0	82.5	74	128			
tert-Butylbenzene	0.0207	0.00580	0.0269	0	77.0	65	132			
Tetrachloroethene	0.0230	0.00580	0.0269	0	85.4	67	139			
Toluene	0.0224	0.00580	0.0269	0.00112	79.1	71	127			
trans-1,2-Dichloroethene	0.0243	0.00580	0.0269	0	90.2	66	134			
trans-1,3-Dichloropropene	0.0218	0.00580	0.0269	0	81.1	65	127			
Trichloroethene	0.0232	0.00580	0.0269	0	86.2	77	124			
Trichlorofluoromethane	0.0212	0.0174	0.0269	0	78.6	49	139			
Vinyl chloride	0.0209	0.00580	0.0269	0	77.5	58	126			
Xylenes, Total	0.0671	0.00580	0.0807	0	83.1	75	125			
Surr: 1,2-Dichloroethane-d4	55.1		58.01		94.9	52	149			
Surr: 4-Bromofluorobenzene	54.0		58.01		93.0	84	118			
Surr: Dibromofluoromethane	59.1		58.01		102	65	135			
Surr: Toluene-d8	58.1		58.01		100	84	116			

Sample ID: <b>2209090-10AMSD</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 5:06:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0194	0.00547	0.0254	0	76.6	74	125	11.3	30	
1,1,1-Trichloroethane	0.0200	0.00547	0.0254	0	78.8	68	130	6.67	30	
1,1,2,2-Tetrachloroethane	0.0217	0.00547	0.0254	0	85.6	59	140	8.83	30	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

Sample ID: <b>2209090-10AMSD</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 5:06:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	0.0237	0.00547	0.0254	0	93.4	62	127	5.81	30	
1,1,2-Trichlorotrifluoroethane	0.0204	0.0164	0.0254	0	80.5	57	135	8.65	30	
1,1-Dichloroethane	0.0217	0.00547	0.0254	0	85.4	73	125	8.05	30	
1,1-Dichloroethene	0.0193	0.00547	0.0254	0	76.0	65	136	7.31	30	
1,1-Dichloropropene	0.0198	0.00547	0.0254	0	77.8	70	135	8.52	30	
1,2,3-Trichlorobenzene	0.0194	0.00547	0.0254	0	76.4	62	133	16.0	30	
1,2,3-Trichloropropane	0.0224	0.00547	0.0254	0	88.4	63	130	7.31	30	
1,2,4-Trichlorobenzene	0.0188	0.00547	0.0254	0	74.1	65	131	17.4	30	
1,2,4-Trimethylbenzene	0.0175	0.00547	0.0254	0	68.8	65	135	15.0	30	
1,2-Dibromo-3-chloropropane	0.0174	0.00547	0.0254	0	68.5	49	135	10.6	30	
1,2-Dibromoethane	0.0228	0.00547	0.0254	0	89.7	70	124	8.46	30	
1,2-Dichlorobenzene	0.0203	0.00547	0.0254	0	79.9	74	120	13.1	30	
1,2-Dichloroethane	0.0210	0.00547	0.0254	0	82.8	72	137	5.23	30	
1,2-Dichloropropane	0.0213	0.00547	0.0254	0	84.0	71	120	7.53	30	
1,3,5-Trimethylbenzene	0.0187	0.00547	0.0254	0	73.6	65	133	14.3	30	
1,3-Dichlorobenzene	0.0188	0.00547	0.0254	0	74.2	72	124	14.4	30	
1,3-Dichloropropane	0.0220	0.00547	0.0254	0	86.8	76	123	6.79	30	
1,4-Dichlorobenzene	0.0206	0.00547	0.0254	0	81.3	72	125	8.67	30	
1-Chlorohexane	0.0169	0.00547	0.0254	0	66.5	60	135	11.2	30	
2,2-Dichloropropane	0.0196	0.00547	0.0254	0	77.4	67	134	6.57	30	
2-Butanone	0.258	0.0164	0.254	0	102	60	135	2.61	30	
2-Chlorotoluene	0.0174	0.00547	0.0254	0	68.5	69	128	14.6	30	
2-Hexanone	0.247	0.0164	0.254	0	97.5	50	150	8.65	30	
4-Chlorotoluene	0.0176	0.00547	0.0254	0	69.3	73	126	15.0	30	S
4-Methyl-2-pentanone	0.249	0.0164	0.254	0	98.3	60	135	3.27	30	
Acetone	0.257	0.0547	0.254	0	101	40	141	3.57	30	
Benzene	0.0214	0.00547	0.0254	0	84.4	73	126	8.97	30	
Bromobenzene	0.0202	0.00547	0.0254	0	79.6	66	121	14.8	30	
Bromochloromethane	0.0247	0.00547	0.0254	0	97.4	71	127	9.46	30	
Bromodichloromethane	0.0203	0.00547	0.0254	0	79.9	72	128	8.25	30	
Bromoform	0.0218	0.00547	0.0254	0	85.9	66	137	8.43	30	
Bromomethane	0.0206	0.00547	0.0254	0	81.3	45	141	6.17	30	
Carbon disulfide	0.0177	0.0164	0.0254	0	69.7	50	150	8.59	30	
Carbon tetrachloride	0.0186	0.00547	0.0254	0	73.2	67	133	6.20	30	
Chlorobenzene	0.0205	0.00547	0.0254	0	80.9	75	123	9.71	30	
Chloroethane	0.0226	0.00547	0.0254	0	89.1	41	141	6.15	30	
Chloroform	0.0215	0.00547	0.0254	0	84.6	72	124	9.40	30	
Chloromethane	0.0193	0.00547	0.0254	0	76.1	51	129	8.80	30	
cis-1,2-Dichloroethene	0.0229	0.00547	0.0254	0	90.1	67	125	5.09	30	
cis-1,3-Dichloropropene	0.0207	0.00547	0.0254	0	81.6	72	126	8.20	30	
Cyclohexane	0.0195	0.0164	0.0254	0	76.7	40	158	11.6	30	N

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

Sample ID: <b>2209090-10AMSD</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg-dry</b>
SampType: <b>MSD</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 5:06:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dibromochloromethane	0.0208	0.00547	0.0254	0	81.9	66	130	9.01	30	
Dibromomethane	0.0237	0.00547	0.0254	0	93.5	73	128	5.63	30	
Dichlorodifluoromethane	0.0144	0.00547	0.0254	0	56.7	34	136	8.16	30	
Ethylbenzene	0.0194	0.00547	0.0254	0	76.6	74	127	10.8	30	
Hexachlorobutadiene	0.0186	0.00547	0.0254	0	73.4	53	142	16.5	30	
Isopropylbenzene	0.0190	0.00547	0.0254	0	75.0	77	129	19.4	30	S
m,p-Xylene	0.0390	0.00547	0.0507	0	76.8	79	126	13.0	30	S
Methyl Acetate	0.0267	0.0164	0.0254	0	105	50	150	3.71	30	
Methyl tert-butyl ether	0.0254	0.00547	0.0254	0	100	50	135	4.52	30	
Methylcyclohexane	0.0175	0.0164	0.0254	0	69.1	50	150	12.6	30	
Methylene chloride	0.0286	0.00547	0.0254	0.00699	85.1	63	137	6.33	30	
Naphthalene	0.0150	0.0164	0.0254	0	59.1	51	135	31.5	30	R
n-Butylbenzene	0.0170	0.00547	0.0254	0	66.9	65	138	14.0	30	
n-Propylbenzene	0.0174	0.00547	0.0254	0	68.6	63	135	20.1	30	
o-Xylene	0.0191	0.00547	0.0254	0	75.4	77	125	16.9	30	S
p-Isopropyltoluene	0.0185	0.00547	0.0254	0	72.8	75	133	17.2	30	S
sec-Butylbenzene	0.0181	0.00547	0.0254	0	71.2	63	132	16.8	30	
Styrene	0.0204	0.00547	0.0254	0	80.5	74	128	8.28	30	
tert-Butylbenzene	0.0183	0.00547	0.0254	0	72.3	65	132	12.2	30	
Tetrachloroethene	0.0208	0.00547	0.0254	0	82.0	67	139	9.97	30	
Toluene	0.0218	0.00547	0.0254	0.00112	81.4	71	127	2.90	30	
trans-1,2-Dichloroethene	0.0214	0.00547	0.0254	0	84.4	66	134	12.6	30	
trans-1,3-Dichloropropene	0.0208	0.00547	0.0254	0	81.9	65	127	4.90	30	
Trichloroethene	0.0209	0.00547	0.0254	0	82.4	77	124	10.4	30	
Trichlorofluoromethane	0.0193	0.0164	0.0254	0	76.3	49	139	8.96	30	
Vinyl chloride	0.0194	0.00547	0.0254	0	76.6	58	126	7.19	30	
Xylenes, Total	0.0581	0.00547	0.0761	0	76.4	75	125	14.3	30	
Surr: 1,2-Dichloroethane-d4	53.8		54.68		98.4	52	149	0	0	
Surr: 4-Bromofluorobenzene	50.1		54.68		91.7	84	118	0	0	
Surr: Dibromofluoromethane	56.3		54.68		103	65	135	0	0	
Surr: Toluene-d8	52.9		54.68		96.7	84	116	0	0	

Sample ID: <b>MB-107035</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 6:02:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	<0.00100	0.00500								
1,1,1-Trichloroethane	<0.00100	0.00500								
1,1,1,2,2-Tetrachloroethane	<0.00100	0.00500								
1,1,2-Trichloroethane	<0.00100	0.00500								
1,1,2-Trichlorotrifluoroethane	<0.00500	0.0150								

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

Sample ID: <b>MB-107035</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 6:02:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethane	<0.00100	0.00500								
1,1-Dichloroethene	<0.00100	0.00500								
1,1-Dichloropropene	<0.00100	0.00500								
1,2,3-Trichlorobenzene	<0.00100	0.00500								
1,2,3-Trichloropropane	<0.00100	0.00500								
1,2,4-Trichlorobenzene	<0.00100	0.00500								
1,2,4-Trimethylbenzene	<0.00100	0.00500								
1,2-Dibromo-3-chloropropane	<0.00100	0.00500								
1,2-Dibromoethane	<0.00100	0.00500								
1,2-Dichlorobenzene	<0.00100	0.00500								
1,2-Dichloroethane	<0.00100	0.00500								
1,2-Dichloropropane	<0.00100	0.00500								
1,3,5-Trimethylbenzene	<0.00100	0.00500								
1,3-Dichlorobenzene	<0.00100	0.00500								
1,3-Dichloropropane	<0.00100	0.00500								
1,4-Dichlorobenzene	<0.00100	0.00500								
1-Chlorohexane	<0.00100	0.00500								
2,2-Dichloropropane	<0.00100	0.00500								
2-Butanone	<0.00500	0.0150								
2-Chlorotoluene	<0.00100	0.00500								
2-Hexanone	<0.00500	0.0150								
4-Chlorotoluene	<0.00100	0.00500								
4-Methyl-2-pentanone	<0.00500	0.0150								
Acetone	<0.0150	0.0500								
Benzene	<0.00100	0.00500								
Bromobenzene	<0.00100	0.00500								
Bromochloromethane	<0.00100	0.00500								
Bromodichloromethane	<0.00100	0.00500								
Bromoform	<0.00100	0.00500								
Bromomethane	<0.00100	0.00500								
Carbon disulfide	<0.00500	0.0150								
Carbon tetrachloride	<0.00100	0.00500								
Chlorobenzene	<0.00100	0.00500								
Chloroethane	<0.00100	0.00500								
Chloroform	<0.00100	0.00500								
Chloromethane	<0.00100	0.00500								
cis-1,2-Dichloroethene	<0.00100	0.00500								
cis-1,3-Dichloropropene	<0.00100	0.00500								
Cyclohexane	<0.00500	0.0150								N
Dibromochloromethane	<0.00100	0.00500								
Dibromomethane	<0.00100	0.00500								

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 RL Reporting Limit  
 J Analyte detected between SDL and RL

DF Dilution Factor  
 MDL Method Detection Limit  
 R RPD outside accepted control limits  
 S Spike Recovery outside control limits  
 N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS2\_220914A**

Sample ID: <b>MB-107035</b>	Batch ID: <b>107035</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 6:02:00 PM</b>	Prep Date: <b>9/14/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	<0.00100	0.00500								
Ethylbenzene	<0.00100	0.00500								
Hexachlorobutadiene	<0.00100	0.00500								
Isopropylbenzene	<0.00100	0.00500								
m,p-Xylene	<0.00100	0.00500								
Methyl Acetate	<0.00500	0.0150								
Methyl tert-butyl ether	<0.00100	0.00500								
Methylcyclohexane	<0.00500	0.0150								
Methylene chloride	<0.00500	0.00500								
Naphthalene	<0.00500	0.0150								
n-Butylbenzene	<0.00100	0.00500								
n-Propylbenzene	<0.00100	0.00500								
o-Xylene	<0.00100	0.00500								
p-Isopropyltoluene	<0.00100	0.00500								
sec-Butylbenzene	<0.00100	0.00500								
Styrene	<0.00100	0.00500								
tert-Butylbenzene	<0.00100	0.00500								
Tetrachloroethene	<0.00100	0.00500								
Toluene	<0.00100	0.00500								
trans-1,2-Dichloroethene	<0.00100	0.00500								
trans-1,3-Dichloropropene	<0.00100	0.00500								
Trichloroethene	<0.00100	0.00500								
Trichlorofluoromethane	<0.00500	0.0150								
Vinyl chloride	<0.00100	0.00500								
Xylenes, Total	<0.00100	0.00500								
Surr: 1,2-Dichloroethane-d4	44.5		50.00		88.9	52	149			
Surr: 4-Bromofluorobenzene	48.7		50.00		97.5	84	118			
Surr: Dibromofluoromethane	51.2		50.00		102	65	135			
Surr: Toluene-d8	47.0		50.00		93.9	84	116			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS2\_220914A**

Sample ID: <b>ICV-220914</b>	Batch ID: <b>R123082</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>ICV</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 3:39:00 PM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0364	0.00500	0.0464	0	78.5	70	130			
1,1,1-Trichloroethane	0.0376	0.00500	0.0464	0	80.9	70	130			
1,1,2,2-Tetrachloroethane	0.0354	0.00500	0.0464	0	76.3	70	130			
1,1,2-Trichloroethane	0.0400	0.00500	0.0464	0	86.3	70	130			
1,1,2-Trichlorotrifluoroethane	0.0390	0.0150	0.0464	0	84.2	70	130			
1,1-Dichloroethane	0.0398	0.00500	0.0464	0	85.9	70	130			
1,1-Dichloroethene	0.0359	0.00500	0.0464	0	77.3	70	130			
1,1-Dichloropropene	0.0388	0.00500	0.0464	0	83.6	70	130			
1,2,3-Trichlorobenzene	0.0346	0.00500	0.0464	0	74.5	70	130			
1,2,3-Trichloropropane	0.0341	0.00500	0.0464	0	73.4	70	130			
1,2,4-Trichlorobenzene	0.0359	0.00500	0.0464	0	77.3	70	130			
1,2,4-Trimethylbenzene	0.0356	0.00500	0.0464	0	76.7	70	130			
1,2-Dibromo-3-chloropropane	0.0281	0.00500	0.0464	0	60.6	70	130			S
1,2-Dibromoethane	0.0381	0.00500	0.0464	0	82.2	70	130			
1,2-Dichlorobenzene	0.0382	0.00500	0.0464	0	82.3	70	130			
1,2-Dichloroethane	0.0352	0.00500	0.0464	0	75.8	70	130			
1,2-Dichloropropane	0.0391	0.00500	0.0464	0	84.4	70	130			
1,3,5-Trimethylbenzene	0.0361	0.00500	0.0464	0	77.7	70	130			
1,3-Dichlorobenzene	0.0379	0.00500	0.0464	0	81.7	70	130			
1,3-Dichloropropane	0.0380	0.00500	0.0464	0	82.0	70	130			
1,4-Dichlorobenzene	0.0369	0.00500	0.0464	0	79.4	70	130			
1-Chlorohexane	0.0321	0.00500	0.0464	0	69.3	70	130			S
2,2-Dichloropropane	0.0399	0.00500	0.0464	0	86.0	70	130			
2-Butanone	0.370	0.0150	0.464	0	79.7	70	130			
2-Chlorotoluene	0.0354	0.00500	0.0464	0	76.4	70	130			
2-Hexanone	0.354	0.0150	0.464	0	76.2	70	130			
4-Chlorotoluene	0.0352	0.00500	0.0464	0	75.8	70	130			
4-Methyl-2-pentanone	0.358	0.0150	0.464	0	77.1	70	130			
Acetone	0.362	0.0500	0.464	0	78.0	70	130			
Benzene	0.0396	0.00500	0.0464	0	85.3	70	130			
Bromobenzene	0.0392	0.00500	0.0464	0	84.4	70	130			
Bromochloromethane	0.0452	0.00500	0.0464	0	97.5	70	130			
Bromodichloromethane	0.0387	0.00500	0.0464	0	83.4	70	130			
Bromoform	0.0376	0.00500	0.0464	0	80.9	70	130			
Bromomethane	0.0421	0.00500	0.0464	0	90.8	70	130			
Carbon disulfide	0.0340	0.0150	0.0464	0	73.3	70	130			
Carbon tetrachloride	0.0351	0.00500	0.0464	0	75.7	70	130			
Chlorobenzene	0.0389	0.00500	0.0464	0	83.8	70	130			
Chloroethane	0.0436	0.00500	0.0464	0	94.0	70	130			
Chloroform	0.0397	0.00500	0.0464	0	85.5	70	130			
Chloromethane	0.0378	0.00500	0.0464	0	81.4	70	130			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	



CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS2\_220914A

Sample ID: <b>ICV-220914</b>	Batch ID: <b>R123082</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/Kg</b>
SampType: <b>ICV</b>	Run ID: <b>GCMS2_220914A</b>	Analysis Date: <b>9/14/2022 3:39:00 PM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	0.0423	0.00500	0.0464	0	91.2	70	130			
cis-1,3-Dichloropropene	0.0388	0.00500	0.0464	0	83.6	70	130			
Cyclohexane	0.0380	0.0150	0.0464	0	82.0	70	130			N
Dibromochloromethane	0.0372	0.00500	0.0464	0	80.2	70	130			
Dibromomethane	0.0397	0.00500	0.0464	0	85.6	70	130			
Dichlorodifluoromethane	0.0275	0.00500	0.0464	0	59.3	70	130			S
Ethylbenzene	0.0379	0.00500	0.0464	0	81.7	70	130			
Hexachlorobutadiene	0.0361	0.00500	0.0464	0	77.8	70	130			
Isopropylbenzene	0.0384	0.00500	0.0464	0	82.8	70	130			
m,p-Xylene	0.0762	0.00500	0.0928	0	82.2	70	130			
Methyl Acetate	0.0383	0.0150	0.0464	0	82.6	70	130			
Methyl tert-butyl ether	0.0419	0.00500	0.0464	0	90.3	70	130			
Methylcyclohexane	0.0336	0.0150	0.0464	0	72.5	70	130			
Methylene chloride	0.0465	0.00500	0.0464	0	100	70	130			
Naphthalene	0.0278	0.0150	0.0464	0	59.9	70	130			S
n-Butylbenzene	0.0328	0.00500	0.0464	0	70.7	70	130			
n-Propylbenzene	0.0365	0.00500	0.0464	0	78.6	70	130			
o-Xylene	0.0391	0.00500	0.0464	0	84.2	70	130			
p-Isopropyltoluene	0.0349	0.00500	0.0464	0	75.2	70	130			
sec-Butylbenzene	0.0362	0.00500	0.0464	0	78.0	70	130			
Styrene	0.0415	0.00500	0.0464	0	89.5	70	130			
tert-Butylbenzene	0.0353	0.00500	0.0464	0	76.0	70	130			
Tetrachloroethene	0.0404	0.00500	0.0464	0	87.0	70	130			
Toluene	0.0396	0.00500	0.0464	0	85.4	70	130			
trans-1,2-Dichloroethene	0.0422	0.00500	0.0464	0	90.9	70	130			
trans-1,3-Dichloropropene	0.0382	0.00500	0.0464	0	82.4	70	130			
Trichloroethene	0.0392	0.00500	0.0464	0	84.4	70	130			
Trichlorofluoromethane	0.0372	0.0150	0.0464	0	80.2	70	130			
Vinyl chloride	0.0366	0.00500	0.0464	0	78.9	70	130			
Xylenes, Total	0.115	0.00500	0.139	0	82.8	70	130			
Surr: 1,2-Dichloroethane-d4	42.1		50.00		84.2	52	149			
Surr: 4-Bromofluorobenzene	46.3		50.00		92.5	84	118			
Surr: Dibromofluoromethane	49.5		50.00		99.0	65	135			
Surr: Toluene-d8	46.9		50.00		93.7	84	116			

**Qualifiers:**

B Analyte detected in the associated Method Blank	DF Dilution Factor
J Analyte detected between MDL and RL	MDL Method Detection Limit
ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits
RL Reporting Limit	S Spike Recovery outside control limits
J Analyte detected between SDL and RL	N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5\_220811A

Sample ID: <b>DCS2-106569</b>	Batch ID: <b>106569</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>DCS2</b>	Run ID: <b>GCMS5_220811A</b>	Analysis Date: <b>8/11/2022 12:50:00 PM</b>	Prep Date: <b>8/11/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,3-Trichlorobenzene	0.00239	0.00500	0.00186	0	128	10	400	0	0	
1,2,4-Trichlorobenzene	0.00209	0.00500	0.00186	0	113	10	400	0	0	
1,2,4-Trimethylbenzene	0.00175	0.00500	0.00186	0	94.1	10	400	0	0	
1,2-Dibromo-3-chloropropane	0.00186	0.0100	0.00186	0	99.9	10	400	0	0	
1,3,5-Trimethylbenzene	0.00171	0.00500	0.00186	0	92.0	10	400	0	0	
1-Chlorohexane	0.00181	0.00500	0.00186	0	97.1	10	400	0	0	
Hexachlorobutadiene	0.00205	0.00300	0.00186	0	110	10	400	0	0	
Methylene chloride	0.00180	0.00250	0.00186	0	96.6	10	400	0	0	
Naphthalene	0.00247	0.0150	0.00186	0	133	10	400	0	0	

Sample ID: <b>DCS-106569</b>	Batch ID: <b>106569</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>DCS</b>	Run ID: <b>GCMS5_220811A</b>	Analysis Date: <b>8/11/2022 3:51:00 PM</b>	Prep Date: <b>8/11/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.000472	0.00100	0.000464	0	102	10	400	0	0	
1,1,1-Trichloroethane	0.000451	0.00100	0.000464	0	97.2	10	400	0	0	
1,1,2,2-Tetrachloroethane	0.000479	0.00100	0.000464	0	103	10	400	0	0	
1,1,2-Trichloroethane	0.000469	0.00100	0.000464	0	101	10	400	0	0	
1,1,2-Trichlorotrifluoroethane	0.00943	0.0150	0.00928	0	102	10	400	0	0	
1,1-Dichloroethane	0.000490	0.00100	0.000464	0	106	10	400	0	0	
1,1-Dichloroethene	0.000510	0.00100	0.000464	0	110	10	400	0	0	
1,1-Dichloropropene	0.000455	0.00100	0.000464	0	98.1	10	400	0	0	
1,2,3-Trichloropropane	0.000488	0.00100	0.000464	0	105	10	400	0	0	
1,2-Dibromoethane	0.000475	0.00100	0.000464	0	102	10	400	0	0	
1,2-Dichlorobenzene	0.000478	0.00100	0.000464	0	103	10	400	0	0	
1,2-Dichloroethane	0.000534	0.00100	0.000464	0	115	10	400	0	0	
1,2-Dichloropropane	0.000436	0.00100	0.000464	0	94.0	10	400	0	0	
1,3-Dichlorobenzene	0.000504	0.00100	0.000464	0	109	10	400	0	0	
1,3-Dichloropropane	0.000506	0.00100	0.000464	0	109	10	400	0	0	
1,4-Dichlorobenzene	0.000506	0.00100	0.000464	0	109	10	400	0	0	
2,2-Dichloropropane	0.000494	0.00100	0.000464	0	106	10	400	0	0	
2-Butanone	0.00880	0.0150	0.00928	0	94.8	10	400	0	0	
2-Chlorotoluene	0.000484	0.00100	0.000464	0	104	10	400	0	0	
2-Hexanone	0.00867	0.0150	0.00928	0	93.4	10	400	0	0	
4-Chlorotoluene	0.000480	0.00100	0.000464	0	103	10	400	0	0	
4-Methyl-2-pentanone	0.00880	0.0150	0.00928	0	94.9	10	400	0	0	
Acetone	0.00923	0.0150	0.00928	0	99.4	10	400	0	0	
Benzene	0.000480	0.00100	0.000464	0	103	10	400	0	0	
Bromobenzene	0.000472	0.00100	0.000464	0	102	10	400	0	0	
Bromochloromethane	0.000462	0.00100	0.000464	0	99.6	10	400	0	0	
Bromodichloromethane	0.000459	0.00100	0.000464	0	98.9	10	400	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5\_220811A

Sample ID: <b>DCS-106569</b>	Batch ID: <b>106569</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>DCS</b>	Run ID: <b>GCMS5_220811A</b>	Analysis Date: <b>8/11/2022 3:51:00 PM</b>	Prep Date: <b>8/11/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromoform	0.000400	0.00100	0.000464	0	86.2	10	400	0	0	
Bromomethane	0.00166	0.00100	0.000464	0	357	10	400	0	0	
Carbon disulfide	0.00926	0.0150	0.00928	0	99.8	10	400	0	0	
Carbon tetrachloride	0.000467	0.00100	0.000464	0	101	10	400	0	0	
Chlorobenzene	0.000489	0.00100	0.000464	0	105	10	400	0	0	
Chloroethane	0.000541	0.00100	0.000464	0	117	10	400	0	0	
Chloroform	0.000437	0.00100	0.000464	0	94.2	10	400	0	0	
Chloromethane	0.000593	0.00100	0.000464	0	128	10	400	0	0	
cis-1,2-Dichloroethene	0.000465	0.00100	0.000464	0	100	10	400	0	0	
cis-1,3-Dichloropropene	0.000452	0.00100	0.000464	0	97.4	10	400	0	0	
Cyclohexane	0.00882	0.0150	0.00928	0	95.0	10	400	0	0	N
Dibromochloromethane	0.000434	0.00100	0.000464	0	93.5	10	400	0	0	
Dibromomethane	0.000453	0.00100	0.000464	0	97.6	10	400	0	0	
Dichlorodifluoromethane	0.000454	0.00100	0.000464	0	97.8	10	400	0	0	
Ethylbenzene	0.000490	0.00100	0.000464	0	106	10	400	0	0	
Isopropylbenzene	0.000458	0.00100	0.000464	0	98.7	10	400	0	0	
m,p-Xylene	0.000903	0.00200	0.000928	0	97.3	10	400	0	0	
Methyl Acetate	0.00885	0.0150	0.00928	0	95.4	10	400	0	0	
Methyl tert-butyl ether	0.000448	0.00100	0.000464	0	96.6	10	400	0	0	
Methylcyclohexane	0.00890	0.0150	0.00928	0	95.9	10	400	0	0	
n-Butylbenzene	0.000437	0.00100	0.000464	0	94.2	10	400	0	0	
n-Propylbenzene	0.000477	0.00100	0.000464	0	103	10	400	0	0	
o-Xylene	0.000455	0.00100	0.000464	0	98.1	10	400	0	0	
p-Isopropyltoluene	0.000460	0.00100	0.000464	0	99.1	10	400	0	0	
sec-Butylbenzene	0.000457	0.00100	0.000464	0	98.5	10	400	0	0	
Styrene	0.000424	0.00100	0.000464	0	91.4	10	400	0	0	
tert-Butylbenzene	0.000468	0.00100	0.000464	0	101	10	400	0	0	
Tetrachloroethene	0.000477	0.00200	0.000464	0	103	10	400	0	0	
Toluene	0.000468	0.00200	0.000464	0	101	10	400	0	0	
trans-1,2-Dichloroethene	0.000467	0.00100	0.000464	0	101	10	400	0	0	
trans-1,3-Dichloropropene	0.000465	0.00100	0.000464	0	100	10	400	0	0	
Trichloroethene	0.000472	0.00100	0.000464	0	102	10	400	0	0	
Trichlorofluoromethane	0.000478	0.00100	0.000464	0	103	10	400	0	0	
Vinyl chloride	0.000466	0.00100	0.000464	0	100	10	400	0	0	
Total Xylenes	0.00136	0.00100	0.00139	0	97.6	10	400	0	0	

**Qualifiers:** B Analyte detected in the associated Method Blank      DF Dilution Factor  
 J Analyte detected between MDL and RL      MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit      R RPD outside accepted control limits  
 RL Reporting Limit      S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL      N Parameter not NELAP certified

CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5\_220913A

The QC data in batch 107009 applies to the following samples: 2209090-53A, 2209090-54A

Sample ID: <b>LCS-107009</b>	Batch ID: <b>107009</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS5_220913A</b>	Analysis Date: <b>9/13/2022 10:03:00 AM</b>	Prep Date: <b>9/13/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0240	0.00100	0.0232	0	103	81	129			
1,1,1-Trichloroethane	0.0264	0.00100	0.0232	0	114	67	132			
1,1,2,2-Tetrachloroethane	0.0211	0.00100	0.0232	0	90.9	63	128			
1,1,2-Trichloroethane	0.0269	0.00100	0.0232	0	116	75	125			
1,1,2-Trichlorotrifluoroethane	0.0279	0.0150	0.0232	0	120	67	125			
1,1-Dichloroethane	0.0270	0.00100	0.0232	0	117	69	133			
1,1-Dichloroethene	0.0267	0.00100	0.0232	0	115	68	130			
1,1-Dichloropropene	0.0268	0.00100	0.0232	0	116	73	132			
1,2,3-Trichlorobenzene	0.0236	0.00500	0.0232	0	102	67	137			
1,2,3-Trichloropropane	0.0209	0.00100	0.0232	0	90.1	73	124			
1,2,4-Trichlorobenzene	0.0234	0.00500	0.0232	0	101	66	134			
1,2,4-Trimethylbenzene	0.0230	0.00500	0.0232	0	99.2	74	132			
1,2-Dibromo-3-chloropropane	0.0210	0.0100	0.0232	0	90.6	50	132			
1,2-Dibromoethane	0.0227	0.00100	0.0232	0	98.0	80	121			
1,2-Dichlorobenzene	0.0226	0.00100	0.0232	0	97.3	75	122			
1,2-Dichloroethane	0.0252	0.00100	0.0232	0	109	69	132			
1,2-Dichloropropane	0.0274	0.00100	0.0232	0	118	75	125			
1,3,5-Trimethylbenzene	0.0230	0.00500	0.0232	0	99.0	74	131			
1,3-Dichlorobenzene	0.0227	0.00100	0.0232	0	97.7	75	124			
1,3-Dichloropropane	0.0232	0.00100	0.0232	0	100	73	126			
1,4-Dichlorobenzene	0.0225	0.00100	0.0232	0	96.9	74	123			
1-Chlorohexane	0.0224	0.00500	0.0232	0	96.6	70	125			
2,2-Dichloropropane	0.0263	0.00100	0.0232	0	113	69	137			
2-Butanone	0.127	0.0150	0.116	0	109	49	136			
2-Chlorotoluene	0.0222	0.00100	0.0232	0	95.7	73	126			
2-Hexanone	0.114	0.0150	0.116	0	98.4	50	150			
4-Chlorotoluene	0.0224	0.00100	0.0232	0	96.5	74	128			
4-Methyl-2-pentanone	0.114	0.0150	0.116	0	98.0	60	134			
Acetone	0.116	0.0150	0.116	0	99.6	40	135			
Benzene	0.0275	0.00100	0.0232	0	119	81	122			
Bromobenzene	0.0218	0.00100	0.0232	0	94.1	76	124			
Bromochloromethane	0.0269	0.00100	0.0232	0	116	65	129			
Bromodichloromethane	0.0262	0.00100	0.0232	0	113	76	121			
Bromoform	0.0236	0.00100	0.0232	0	102	69	128			
Bromomethane	0.0227	0.00100	0.0232	0	97.9	53	141			
Carbon disulfide	0.0248	0.0150	0.0232	0	107	50	150			
Carbon tetrachloride	0.0262	0.00100	0.0232	0	113	66	138			
Chlorobenzene	0.0240	0.00100	0.0232	0	104	81	122			
Chloroethane	0.0266	0.00100	0.0232	0	115	58	133			
Chloroform	0.0262	0.00100	0.0232	0	113	69	128			

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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CLIENT: Terracon  
 Work Order: 2209090  
 Project: Rosedale

## ANALYTICAL QC SUMMARY REPORT

RunID: **GCMS5\_220913A**

Sample ID: <b>LCS-107009</b>	Batch ID: <b>107009</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>LCS</b>	Run ID: <b>GCMS5_220913A</b>	Analysis Date: <b>9/13/2022 10:03:00 AM</b>	Prep Date: <b>9/13/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	0.0288	0.00100	0.0232	0	124	56	131			
cis-1,2-Dichloroethene	0.0266	0.00100	0.0232	0	115	72	126			
cis-1,3-Dichloropropene	0.0270	0.00100	0.0232	0	116	69	131			
Cyclohexane	0.0284	0.0150	0.0232	0	122	40	161			N
Dibromochloromethane	0.0236	0.00100	0.0232	0	102	66	133			
Dibromomethane	0.0259	0.00100	0.0232	0	112	76	125			
Dichlorodifluoromethane	0.0225	0.00100	0.0232	0	96.8	53	153			
Ethylbenzene	0.0245	0.00100	0.0232	0	105	80	120			
Hexachlorobutadiene	0.0236	0.00300	0.0232	0	102	67	131			
Isopropylbenzene	0.0250	0.00100	0.0232	0	108	75	127			
m,p-Xylene	0.0494	0.00200	0.0464	0	107	80	120			
Methyl Acetate	0.0279	0.0150	0.0232	0	120	50	150			
Methyl tert-butyl ether	0.0259	0.00100	0.0232	0	112	68	123			
Methylcyclohexane	0.0286	0.0150	0.0232	0	123	70	130			
Methylene chloride	0.0277	0.00250	0.0232	0	119	63	137			
Naphthalene	0.0238	0.0150	0.0232	0	103	54	138			
n-Butylbenzene	0.0234	0.00100	0.0232	0	101	69	137			
n-Propylbenzene	0.0226	0.00100	0.0232	0	97.4	72	129			
o-Xylene	0.0247	0.00100	0.0232	0	107	80	120			
p-Isopropyltoluene	0.0236	0.00100	0.0232	0	102	73	130			
sec-Butylbenzene	0.0234	0.00100	0.0232	0	101	72	127			
Styrene	0.0247	0.00100	0.0232	0	106	65	134			
tert-Butylbenzene	0.0229	0.00100	0.0232	0	98.8	70	129			
Tetrachloroethene	0.0244	0.00200	0.0232	0	105	66	128			
Toluene	0.0280	0.00200	0.0232	0	121	80	120			S
trans-1,2-Dichloroethene	0.0267	0.00100	0.0232	0	115	63	137			
trans-1,3-Dichloropropene	0.0267	0.00100	0.0232	0	115	59	135			
Trichloroethene	0.0270	0.00100	0.0232	0	116	70	127			
Trichlorofluoromethane	0.0270	0.00100	0.0232	0	116	57	129			
Vinyl chloride	0.0270	0.00100	0.0232	0	116	50	134			
Total Xylenes	0.0742	0.00100	0.0696	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	179		200.0		89.4	72	119			
Surr: 4-Bromofluorobenzene	189		200.0		94.5	76	119			
Surr: Dibromofluoromethane	196		200.0		98.1	85	115			
Surr: Toluene-d8	184		200.0		91.9	81	120			

Sample ID: <b>MB-107009</b>	Batch ID: <b>107009</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS5_220913A</b>	Analysis Date: <b>9/13/2022 11:28:00 AM</b>	Prep Date: <b>9/13/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	<0.000300	0.00100								

**Qualifiers:**

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS5\_220913A**

Sample ID: <b>MB-107009</b>	Batch ID: <b>107009</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS5_220913A</b>	Analysis Date: <b>9/13/2022 11:28:00 AM</b>	Prep Date: <b>9/13/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	<0.000300	0.00100								
1,1,2,2-Tetrachloroethane	<0.000300	0.00100								
1,1,2-Trichloroethane	<0.000300	0.00100								
1,1,2-Trichlorotrifluoroethane	<0.00500	0.0150								
1,1-Dichloroethane	<0.000300	0.00100								
1,1-Dichloroethene	<0.000300	0.00100								
1,1-Dichloropropene	<0.000300	0.00100								
1,2,3-Trichlorobenzene	<0.00150	0.00500								
1,2,3-Trichloropropane	<0.000300	0.00100								
1,2,4-Trichlorobenzene	<0.00150	0.00500								
1,2,4-Trimethylbenzene	<0.00150	0.00500								
1,2-Dibromo-3-chloropropane	<0.00300	0.0100								
1,2-Dibromoethane	<0.000300	0.00100								
1,2-Dichlorobenzene	<0.000300	0.00100								
1,2-Dichloroethane	<0.000300	0.00100								
1,2-Dichloropropane	<0.000300	0.00100								
1,3,5-Trimethylbenzene	<0.00150	0.00500								
1,3-Dichlorobenzene	<0.000300	0.00100								
1,3-Dichloropropane	<0.000300	0.00100								
1,4-Dichlorobenzene	<0.000300	0.00100								
1-Chlorohexane	<0.00100	0.00500								
2,2-Dichloropropane	<0.000300	0.00100								
2-Butanone	<0.00500	0.0150								
2-Chlorotoluene	<0.000300	0.00100								
2-Hexanone	<0.00500	0.0150								
4-Chlorotoluene	<0.000300	0.00100								
4-Methyl-2-pentanone	<0.00500	0.0150								
Acetone	<0.00500	0.0150								
Benzene	<0.000300	0.00100								
Bromobenzene	<0.000300	0.00100								
Bromochloromethane	<0.000300	0.00100								
Bromodichloromethane	<0.000300	0.00100								
Bromoform	<0.000300	0.00100								
Bromomethane	<0.000300	0.00100								
Carbon disulfide	<0.00500	0.0150								
Carbon tetrachloride	<0.000300	0.00100								
Chlorobenzene	<0.000300	0.00100								
Chloroethane	<0.000300	0.00100								
Chloroform	<0.000300	0.00100								
Chloromethane	<0.000300	0.00100								
cis-1,2-Dichloroethene	<0.000300	0.00100								

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 RL Reporting Limit  
 J Analyte detected between SDL and RL

DF Dilution Factor  
 MDL Method Detection Limit  
 R RPD outside accepted control limits  
 S Spike Recovery outside control limits  
 N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS5\_220913A**

Sample ID: <b>MB-107009</b>	Batch ID: <b>107009</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>MBLK</b>	Run ID: <b>GCMS5_220913A</b>	Analysis Date: <b>9/13/2022 11:28:00 AM</b>	Prep Date: <b>9/13/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	<0.000300	0.00100								
Cyclohexane	<0.00500	0.0150								N
Dibromochloromethane	<0.000300	0.00100								
Dibromomethane	<0.000300	0.00100								
Dichlorodifluoromethane	<0.000300	0.00100								
Ethylbenzene	<0.000300	0.00100								
Hexachlorobutadiene	<0.00100	0.00300								
Isopropylbenzene	<0.000300	0.00100								
m,p-Xylene	<0.000600	0.00200								
Methyl Acetate	<0.00500	0.0150								
Methyl tert-butyl ether	<0.000300	0.00100								
Methylcyclohexane	<0.00500	0.0150								
Methylene chloride	<0.00250	0.00250								
Naphthalene	<0.00500	0.0150								
n-Butylbenzene	<0.000300	0.00100								
n-Propylbenzene	<0.000300	0.00100								
o-Xylene	<0.000300	0.00100								
p-Isopropyltoluene	<0.000300	0.00100								
sec-Butylbenzene	<0.000300	0.00100								
Styrene	<0.000300	0.00100								
tert-Butylbenzene	<0.000300	0.00100								
Tetrachloroethene	<0.000600	0.00200								
Toluene	<0.000600	0.00200								
trans-1,2-Dichloroethene	<0.000300	0.00100								
trans-1,3-Dichloropropene	<0.000300	0.00100								
Trichloroethene	<0.000600	0.00100								
Trichlorofluoromethane	<0.000300	0.00100								
Vinyl chloride	<0.000300	0.00100								
Total Xylenes	<0.000300	0.00100								
Surr: 1,2-Dichloroethane-d4	185		200.0		92.4	72	119			
Surr: 4-Bromofluorobenzene	195		200.0		97.7	76	119			
Surr: Dibromofluoromethane	198		200.0		99.0	85	115			
Surr: Toluene-d8	188		200.0		93.9	81	120			

**Qualifiers:** B Analyte detected in the associated Method Blank  
 J Analyte detected between MDL and RL  
 ND Not Detected at the Method Detection Limit  
 RL Reporting Limit  
 J Analyte detected between SDL and RL

DF Dilution Factor  
 MDL Method Detection Limit  
 R RPD outside accepted control limits  
 S Spike Recovery outside control limits  
 N Parameter not NELAP certified

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS5\_220913A**

Sample ID: <b>ICV-220913</b>	Batch ID: <b>R123043</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>ICV</b>	Run ID: <b>GCMS5_220913A</b>	Analysis Date: <b>9/13/2022 9:37:00 AM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0427	0.00100	0.0464	0	92.1	70	130			
1,1,1-Trichloroethane	0.0474	0.00100	0.0464	0	102	70	130			
1,1,2,2-Tetrachloroethane	0.0367	0.00100	0.0464	0	79.0	70	130			
1,1,2-Trichloroethane	0.0484	0.00100	0.0464	0	104	70	130			
1,1,2-Trichlorotrifluoroethane	0.0546	0.0150	0.0464	0	118	70	130			
1,1-Dichloroethane	0.0480	0.00100	0.0464	0	103	70	130			
1,1-Dichloroethene	0.0469	0.00100	0.0464	0	101	70	130			
1,1-Dichloropropene	0.0488	0.00100	0.0464	0	105	70	130			
1,2,3-Trichlorobenzene	0.0367	0.00500	0.0464	0	79.1	70	130			
1,2,3-Trichloropropane	0.0363	0.00100	0.0464	0	78.1	70	130			
1,2,4-Trichlorobenzene	0.0386	0.00500	0.0464	0	83.1	70	130			
1,2,4-Trimethylbenzene	0.0395	0.00500	0.0464	0	85.2	70	130			
1,2-Dibromo-3-chloropropane	0.0357	0.0100	0.0464	0	77.0	70	130			
1,2-Dibromoethane	0.0406	0.00100	0.0464	0	87.4	70	130			
1,2-Dichlorobenzene	0.0382	0.00100	0.0464	0	82.4	70	130			
1,2-Dichloroethane	0.0451	0.00100	0.0464	0	97.1	70	130			
1,2-Dichloropropane	0.0495	0.00100	0.0464	0	107	70	130			
1,3,5-Trimethylbenzene	0.0394	0.00500	0.0464	0	84.9	70	130			
1,3-Dichlorobenzene	0.0389	0.00100	0.0464	0	83.8	70	130			
1,3-Dichloropropane	0.0416	0.00100	0.0464	0	89.6	70	130			
1,4-Dichlorobenzene	0.0386	0.00100	0.0464	0	83.2	70	130			
1-Chlorohexane	0.0396	0.00500	0.0464	0	85.3	70	130			
2,2-Dichloropropane	0.0475	0.00100	0.0464	0	102	70	130			
2-Butanone	0.252	0.0150	0.232	0	109	70	130			
2-Chlorotoluene	0.0383	0.00100	0.0464	0	82.5	70	130			
2-Hexanone	0.224	0.0150	0.232	0	96.4	70	130			
4-Chlorotoluene	0.0385	0.00100	0.0464	0	82.9	70	130			
4-Methyl-2-pentanone	0.222	0.0150	0.232	0	95.5	70	130			
Acetone	0.232	0.0150	0.232	0	99.9	70	130			
Benzene	0.0498	0.00100	0.0464	0	107	70	130			
Bromobenzene	0.0372	0.00100	0.0464	0	80.2	70	130			
Bromochloromethane	0.0485	0.00100	0.0464	0	105	70	130			
Bromodichloromethane	0.0472	0.00100	0.0464	0	102	70	130			
Bromoform	0.0431	0.00100	0.0464	0	92.9	70	130			
Bromomethane	0.0343	0.00100	0.0464	0	73.9	70	130			
Carbon disulfide	0.0483	0.0150	0.0464	0	104	70	130			
Carbon tetrachloride	0.0462	0.00100	0.0464	0	99.6	70	130			
Chlorobenzene	0.0424	0.00100	0.0464	0	91.3	70	130			
Chloroethane	0.0455	0.00100	0.0464	0	98.0	70	130			
Chloroform	0.0473	0.00100	0.0464	0	102	70	130			
Chloromethane	0.0509	0.00100	0.0464	0	110	70	130			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	



**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: GCMS5\_220913A**

Sample ID: <b>ICV-220913</b>	Batch ID: <b>R123043</b>	TestNo: <b>SW8260D</b>	Units: <b>mg/L</b>
SampType: <b>ICV</b>	Run ID: <b>GCMS5_220913A</b>	Analysis Date: <b>9/13/2022 9:37:00 AM</b>	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	0.0478	0.00100	0.0464	0	103	70	130			
cis-1,3-Dichloropropene	0.0494	0.00100	0.0464	0	107	70	130			
Cyclohexane	0.0526	0.0150	0.0464	0	113	70	130			N
Dibromochloromethane	0.0422	0.00100	0.0464	0	91.0	70	130			
Dibromomethane	0.0463	0.00100	0.0464	0	99.9	70	130			
Dichlorodifluoromethane	0.0399	0.00100	0.0464	0	86.0	70	130			
Ethylbenzene	0.0437	0.00100	0.0464	0	94.2	70	130			
Hexachlorobutadiene	0.0388	0.00300	0.0464	0	83.6	70	130			
Isopropylbenzene	0.0449	0.00100	0.0464	0	96.7	70	130			
m,p-Xylene	0.0890	0.00200	0.0928	0	95.9	70	130			
Methyl Acetate	0.0528	0.0150	0.0464	0	114	70	130			
Methyl tert-butyl ether	0.0464	0.00100	0.0464	0	100	70	130			
Methylcyclohexane	0.0550	0.0150	0.0464	0	119	70	130			
Methylene chloride	0.0491	0.00250	0.0464	0	106	70	130			
Naphthalene	0.0361	0.0150	0.0464	0	77.9	70	130			
n-Butylbenzene	0.0403	0.00100	0.0464	0	86.9	70	130			
n-Propylbenzene	0.0387	0.00100	0.0464	0	83.4	70	130			
o-Xylene	0.0445	0.00100	0.0464	0	95.9	70	130			
p-Isopropyltoluene	0.0407	0.00100	0.0464	0	87.6	70	130			
sec-Butylbenzene	0.0399	0.00100	0.0464	0	86.0	70	130			
Styrene	0.0448	0.00100	0.0464	0	96.6	70	130			
tert-Butylbenzene	0.0396	0.00100	0.0464	0	85.3	70	130			
Tetrachloroethene	0.0433	0.00200	0.0464	0	93.4	70	130			
Toluene	0.0505	0.00200	0.0464	0	109	70	130			
trans-1,2-Dichloroethene	0.0478	0.00100	0.0464	0	103	70	130			
trans-1,3-Dichloropropene	0.0483	0.00100	0.0464	0	104	70	130			
Trichloroethene	0.0488	0.00100	0.0464	0	105	70	130			
Trichlorofluoromethane	0.0477	0.00100	0.0464	0	103	70	130			
Vinyl chloride	0.0476	0.00100	0.0464	0	103	70	130			
Total Xylenes	0.133	0.00100	0.139	0	95.9	70	130			
Surr: 1,2-Dichloroethane-d4	184		200.0		92.0	72	119			
Surr: 4-Bromofluorobenzene	181		200.0		90.5	76	119			
Surr: Dibromofluoromethane	199		200.0		99.5	85	115			
Surr: Toluene-d8	185		200.0		92.5	81	120			

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: PMOIST\_220913A**

The QC data in batch 107020 applies to the following samples: 2209090-01A, 2209090-04C, 2209090-06C, 2209090-07A, 2209090-10C, 2209090-12A

Sample ID: <b>2209084-27A-DUP</b>	Batch ID: <b>107020</b>	TestNo: <b>D2216</b>	Units: <b>WT%</b>							
SampType: <b>DUP</b>	Run ID: <b>PMOIST_220913A</b>	Analysis Date: <b>9/14/2022 9:15:00 AM</b>	Prep Date: <b>9/13/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	21.1	0	0	20.84				1.03	30	

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: PMOIST\_220913B**

The QC data in batch 107021 applies to the following samples: 2209090-15A, 2209090-18A, 2209090-21A, 2209090-24A, 2209090-27A, 2209090-30A, 2209090-33A, 2209090-36A, 2209090-39A, 2209090-42A, 2209090-45A, 2209090-48A, 2209090-51C, 2209090-52C, 2209090-55A, 2209090-56A

Sample ID: <b>2209090-56A-DUP</b>	Batch ID: <b>107021</b>	TestNo: <b>D2216</b>	Units: <b>WT%</b>
SampType: <b>DUP</b>	Run ID: <b>PMOIST_220913B</b>	Analysis Date: <b>9/14/2022 9:15:00 AM</b>	Prep Date: <b>9/13/2022</b>

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	19.5	0	0	20.11				3.13	30	

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAP certified	

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## ANALYTICAL QC SUMMARY REPORT

**RunID: PMOIST\_220923A**

The QC data in batch 107123 applies to the following samples: 2209090-05A, 2209090-11A, 2209090-25A, 2209090-37A, 2209090-49A

Sample ID: <b>2209090-05A-DUP</b>	Batch ID: <b>107123</b>	TestNo: <b>D2216</b>	Units: <b>WT%</b>							
SampType: <b>DUP</b>	Run ID: <b>PMOIST_220923A</b>	Analysis Date: <b>9/26/2022 9:15:00 AM</b>	Prep Date: <b>9/23/2022</b>							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	17.2	0	0	16.17				5.96	30	

<b>Qualifiers:</b> B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAP certified
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**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

**MQL SUMMARY REPORT**

TestNo: TX1005	MDL	ML
Analyte	mg/Kg	mg/Kg
T/R Hydrocarbons: C6-C12	7.00	20.0
T/R Hydrocarbons: >C12-C28	7.00	20.0
T/R Hydrocarbons: >C28-C35	7.00	20.0
T/R Hydrocarbons: C6-C35	7.00	20.0

TestNo: SW6020B	MDL	ML
Analyte	mg/Kg	mg/Kg
Lead	0.100	0.300

TestNo: SW8260D	MDL	ML
Analyte	mg/Kg	mg/Kg
1,1,1,2-Tetrachloroethane	0.00100	0.00500
1,1,1-Trichloroethane	0.00100	0.00500
1,1,2,2-Tetrachloroethane	0.00100	0.00500
1,1,2-Trichloroethane	0.00100	0.00500
1,1,2-Trichlorotrifluoroethane	0.00500	0.0150
1,1-Dichloroethane	0.00100	0.00500
1,1-Dichloroethene	0.00100	0.00500
1,1-Dichloropropene	0.00100	0.00500
1,2,3-Trichlorobenzene	0.00100	0.00500
1,2,3-Trichloropropane	0.00100	0.00500
1,2,4-Trichlorobenzene	0.00100	0.00500
1,2,4-Trimethylbenzene	0.00100	0.00500
1,2-Dibromo-3-chloropropane	0.00100	0.00500
1,2-Dibromoethane	0.00100	0.00500
1,2-Dichlorobenzene	0.00100	0.00500
1,2-Dichloroethane	0.00100	0.00500
1,2-Dichloropropane	0.00100	0.00500
1,3,5-Trimethylbenzene	0.00100	0.00500
1,3-Dichlorobenzene	0.00100	0.00500
1,3-Dichloropropane	0.00100	0.00500
1,4-Dichlorobenzene	0.00100	0.00500
1-Chlorohexane	0.00100	0.00500
2,2-Dichloropropane	0.00100	0.00500
2-Butanone	0.00500	0.0150
2-Chlorotoluene	0.00100	0.00500
2-Hexanone	0.00500	0.0150
4-Chlorotoluene	0.00100	0.00500
4-Methyl-2-pentanone	0.00500	0.0150
Acetone	0.0150	0.0500
Benzene	0.00100	0.00500
Bromobenzene	0.00100	0.00500
Bromochloromethane	0.00100	0.00500
Bromodichloromethane	0.00100	0.00500
Bromoform	0.00100	0.00500
Bromomethane	0.00100	0.00500
Carbon disulfide	0.00500	0.0150
Carbon tetrachloride	0.00100	0.00500
Chlorobenzene	0.00100	0.00500
Chloroethane	0.00100	0.00500
Chloroform	0.00100	0.00500
Chloromethane	0.00100	0.00500
cis-1,2-Dichloroethene	0.00100	0.00500
cis-1,3-Dichloropropene	0.00100	0.00500
Cyclohexane	0.00500	0.0150

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP  
MDL -Method Detection Limit as defined by TRRP

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## MQL SUMMARY REPORT

Analyte	0.00100	0.00500	TestNo: SW8260D	MDL	MQL
Analyte				mg/L	mg/L
Dibromochloromethane	0.00100	0.00500	1,1,1,2-Tetrachloroethane	0.000300	0.00100
Dibromomethane	0.00100	0.00500	1,1,1-Trichloroethane	0.000300	0.00100
Dichlorodifluoromethane	0.00100	0.00500	1,1,2,2-Tetrachloroethane	0.000300	0.00100
Ethylbenzene	0.00100	0.00500	1,1,2-Trichloroethane	0.000300	0.00100
Hexachlorobutadiene	0.00100	0.00500	1,1,2-Trichlorotrifluoroethane	0.00500	0.0150
Isopropylbenzene	0.00100	0.00500	1,1-Dichloroethane	0.000300	0.00100
m,p-Xylene	0.00100	0.00500	1,1-Dichloroethene	0.000300	0.00100
Methyl Acetate	0.00500	0.0150	1,1-Dichloropropene	0.000300	0.00100
Methyl tert-butyl ether	0.00100	0.00500	1,2,3-Trichlorobenzene	0.00150	0.00500
Methylcyclohexane	0.00500	0.0150	1,2,3-Trichloropropane	0.000300	0.00100
Methylene chloride	0.00500	0.00500	1,2,4-Trichlorobenzene	0.00150	0.00500
Naphthalene	0.00500	0.0150	1,2,4-Trimethylbenzene	0.00150	0.00500
n-Butylbenzene	0.00100	0.00500	1,2-Dibromo-3-chloropropane	0.00300	0.0100
n-Propylbenzene	0.00100	0.00500	1,2-Dibromoethane	0.000300	0.00100
o-Xylene	0.00100	0.00500	1,2-Dichlorobenzene	0.000300	0.00100
p-Isopropyltoluene	0.00100	0.00500	1,2-Dichloroethane	0.000300	0.00100
sec-Butylbenzene	0.00100	0.00500	1,2-Dichloropropene	0.000300	0.00100
Styrene	0.00100	0.00500	1,3,5-Trimethylbenzene	0.00150	0.00500
tert-Butylbenzene	0.00100	0.00500	1,3-Dichlorobenzene	0.000300	0.00100
Tetrachloroethene	0.00100	0.00500	1,3-Dichloropropane	0.000300	0.00100
Toluene	0.00100	0.00500	1,4-Dichlorobenzene	0.000300	0.00100
trans-1,2-Dichloroethene	0.00100	0.00500	1-Chlorohexane	0.00100	0.00500
trans-1,3-Dichloropropene	0.00100	0.00500	2,2-Dichloropropane	0.000300	0.00100
Trichloroethene	0.00100	0.00500	2-Butanone	0.00500	0.0150
Trichlorofluoromethane	0.00500	0.0150	2-Chlorotoluene	0.000300	0.00100
Vinyl chloride	0.00100	0.00500	2-Hexanone	0.00500	0.0150
Total Xylenes	0.00100	0.00500	4-Chlorotoluene	0.000300	0.00100
			4-Methyl-2-pentanone	0.00500	0.0150
			Acetone	0.00500	0.0150
			Benzene	0.000300	0.00100
			Bromobenzene	0.000300	0.00100
			Bromochloromethane	0.000300	0.00100
			Bromodichloromethane	0.000300	0.00100
			Bromoform	0.000300	0.00100
			Bromomethane	0.000300	0.00100
			Carbon disulfide	0.00500	0.0150
			Carbon tetrachloride	0.000300	0.00100
			Chlorobenzene	0.000300	0.00100
			Chloroethane	0.000300	0.00100
			Chloroform	0.000300	0.00100
			Chloromethane	0.000300	0.00100
			cis-1,2-Dichloroethene	0.000300	0.00100
			cis-1,3-Dichloropropene	0.000300	0.00100
			Cyclohexane	0.00500	0.0150
			Dibromochloromethane	0.000300	0.00100
			Dibromomethane	0.000300	0.00100

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP  
 MDL -Method Detection Limit as defined by TRRP

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## MQL SUMMARY REPORT

Dichlorodifluoromethane	0.000300	0.00100
Ethylbenzene	0.000300	0.00100
Hexachlorobutadiene	0.00100	0.00300
Isopropylbenzene	0.000300	0.00100
m,p-Xylene	0.000600	0.00200
Methyl Acetate	0.00500	0.0150
Methyl tert-butyl ether	0.000300	0.00100
Methylcyclohexane	0.00500	0.0150
Methylene chloride	0.00250	0.00250
Naphthalene	0.00500	0.0150
n-Butylbenzene	0.000300	0.00100
n-Propylbenzene	0.000300	0.00100
o-Xylene	0.000300	0.00100
p-Isopropyltoluene	0.000300	0.00100
sec-Butylbenzene	0.000300	0.00100
Styrene	0.000300	0.00100
tert-Butylbenzene	0.000300	0.00100
Tetrachloroethene	0.000600	0.00200
Toluene	0.000600	0.00200
trans-1,2-Dichloroethene	0.000300	0.00100
trans-1,3-Dichloropropene	0.000300	0.00100
Trichloroethene	0.000600	0.00100
Trichlorofluoromethane	0.000300	0.00100
Vinyl chloride	0.000300	0.00100
Total Xylenes	0.000300	0.00100

TestNo: SW8260D	MDL	MQL
Analyte	mg/Kg	mg/Kg
1,1,1,2-Tetrachloroethane	0.00100	0.00500
1,1,1-Trichloroethane	0.00100	0.00500
1,1,2,2-Tetrachloroethane	0.00100	0.00500
1,1,2-Trichloroethane	0.00100	0.00500
1,1,2-Trichlorotrifluoroethane	0.00500	0.0150
1,1-Dichloroethane	0.00100	0.00500
1,1-Dichloroethene	0.00100	0.00500
1,1-Dichloropropene	0.00100	0.00500
1,2,3-Trichlorobenzene	0.00100	0.00500
1,2,3-Trichloropropane	0.00100	0.00500
1,2,4-Trichlorobenzene	0.00100	0.00500
1,2,4-Trimethylbenzene	0.00100	0.00500
1,2-Dibromo-3-chloropropane	0.00100	0.00500
1,2-Dibromoethane	0.00100	0.00500
1,2-Dichlorobenzene	0.00100	0.00500
1,2-Dichloroethane	0.00100	0.00500
1,2-Dichloropropane	0.00100	0.00500
1,3,5-Trimethylbenzene	0.00100	0.00500
1,3-Dichlorobenzene	0.00100	0.00500
1,3-Dichloropropane	0.00100	0.00500
1,4-Dichlorobenzene	0.00100	0.00500
1-Chlorohexane	0.00100	0.00500
2,2-Dichloropropane	0.00100	0.00500
2-Butanone	0.00500	0.0150
2-Chlorotoluene	0.00100	0.00500
2-Hexanone	0.00500	0.0150
4-Chlorotoluene	0.00100	0.00500
4-Methyl-2-pentanone	0.00500	0.0150
Acetone	0.0150	0.0500
Benzene	0.00100	0.00500
Bromobenzene	0.00100	0.00500
Bromochloromethane	0.00100	0.00500
Bromodichloromethane	0.00100	0.00500
Bromoform	0.00100	0.00500
Bromomethane	0.00100	0.00500
Carbon disulfide	0.00500	0.0150
Carbon tetrachloride	0.00100	0.00500
Chlorobenzene	0.00100	0.00500
Chloroethane	0.00100	0.00500
Chloroform	0.00100	0.00500
Chloromethane	0.00100	0.00500
cis-1,2-Dichloroethene	0.00100	0.00500
cis-1,3-Dichloropropene	0.00100	0.00500
Cyclohexane	0.00500	0.0150
Dibromochloromethane	0.00100	0.00500
Dibromomethane	0.00100	0.00500

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP  
 MDL -Method Detection Limit as defined by TRRP

**CLIENT:** Terracon  
**Work Order:** 2209090  
**Project:** Rosedale

## SQL SUMMARY REPORT

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Dichlorodifluoromethane	0.00100	0.00500
Ethylbenzene	0.00100	0.00500
Hexachlorobutadiene	0.00100	0.00500
Isopropylbenzene	0.00100	0.00500
m,p-Xylene	0.00100	0.00500
Methyl Acetate	0.00500	0.0150
Methyl tert-butyl ether	0.00100	0.00500
Methylcyclohexane	0.00500	0.0150
Methylene chloride	0.00500	0.00500
Naphthalene	0.00500	0.0150
n-Butylbenzene	0.00100	0.00500
n-Propylbenzene	0.00100	0.00500
o-Xylene	0.00100	0.00500
p-Isopropyltoluene	0.00100	0.00500
sec-Butylbenzene	0.00100	0.00500
Styrene	0.00100	0.00500
tert-Butylbenzene	0.00100	0.00500
Tetrachloroethene	0.00100	0.00500
Toluene	0.00100	0.00500
trans-1,2-Dichloroethene	0.00100	0.00500
trans-1,3-Dichloropropene	0.00100	0.00500
Trichloroethene	0.00100	0.00500
Trichlorofluoromethane	0.00500	0.0150
Vinyl chloride	0.00100	0.00500
Xylenes, Total	0.00100	0.00500

---

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP  
MDL -Method Detection Limit as defined by TRRP



## Terracon - Ft. Worth, TX

Sample Delivery Group: L1538557  
Samples Received: 09/22/2022  
Project Number: 95207647 TASK 3.6  
Description: Rosedale Project

Report To: Kyle Lindquist  
1801 Handley Ederville Rd.  
Fort Worth, TX 76118

Entire Report Reviewed By:



Jennifer A McCurdy  
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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# SAMPLE SUMMARY

## SGP-1 L1538557-01 Air

Collected by: Kyle L  
 Collected date/time: 09/21/22 11:43  
 Received date/time: 09/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1932122	1	09/25/22 16:57	09/25/22 16:57	CEP	Mt. Juliet, TN

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

## SGP-2 L1538557-02 Air

Collected by: Kyle L  
 Collected date/time: 09/21/22 11:31  
 Received date/time: 09/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1932122	1	09/25/22 17:28	09/25/22 17:28	CEP	Mt. Juliet, TN

<sup>4</sup> Cn

<sup>5</sup> Tr

## SGP-3 L1538557-03 Air

Collected by: Kyle L  
 Collected date/time: 09/21/22 10:48  
 Received date/time: 09/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1932122	1	09/25/22 17:59	09/25/22 17:59	CEP	Mt. Juliet, TN

<sup>6</sup> Sr

<sup>7</sup> Qc

## SGP-4 L1538557-04 Air

Collected by: Kyle L  
 Collected date/time: 09/21/22 10:28  
 Received date/time: 09/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1932122	100	09/26/22 01:13	09/26/22 01:13	CEP	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1933255	10000	09/28/22 03:16	09/28/22 03:16	CEP	Mt. Juliet, TN

<sup>8</sup> Gl

<sup>9</sup> Al

<sup>10</sup> Sc

## SGP-5 L1538557-05 Air

Collected by: Kyle L  
 Collected date/time: 09/21/22 10:08  
 Received date/time: 09/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1932122	1	09/25/22 18:30	09/25/22 18:30	CEP	Mt. Juliet, TN

## SGP-6 L1538557-06 Air

Collected by: Kyle L  
 Collected date/time: 09/21/22 09:49  
 Received date/time: 09/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1932122	1	09/25/22 19:02	09/25/22 19:02	CEP	Mt. Juliet, TN

## FB-1 L1538557-07 Air

Collected by: Kyle L  
 Collected date/time: 09/21/22 11:51  
 Received date/time: 09/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1932122	1	09/25/22 19:32	09/25/22 19:32	CEP	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.



Jennifer A McCurdy  
Project Manager

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Tr
- <sup>6</sup> Sr
- <sup>7</sup> Qc
- <sup>8</sup> Gl
- <sup>9</sup> Al
- <sup>10</sup> Sc

## Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Jennifer A McCurdy  
Project Manager

## Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National			LRC Date: 09/28/2022 16:41				
Project Name: Rosedale Project			Laboratory Job Number: L1538557-01, 02, 03, 04, 05, 06 and 07				
Reviewer Name: Jennifer A McCurdy			Prep Batch Number(s): WG1932122 and WG1933255				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X		
		Were MS/MSD RPDs within laboratory QC limits?			X		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.  
 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);  
 3. NA = Not applicable;  
 4. NR = Not reviewed;  
 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 09/28/2022 16:41					
Project Name: Rosedale Project		Laboratory Job Number: L1538557-01, 02, 03, 04, 05, 06 and 07					
Reviewer Name: Jennifer A McCurdy		Prep Batch Number(s): WG1932122 and WG1933255					
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>							

# Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National		LRC Date: 09/28/2022 16:41	
Project Name: Rosedale Project		Laboratory Job Number: L1538557-01, 02, 03, 04, 05, 06 and 07	
Reviewer Name: Jennifer A McCurdy		Prep Batch Number(s): WG1932122 and WG1933255	
ER # <sup>1</sup>	Description		
1	TO-15 WG1932122 1,4-Bromofluorobenzene L1538557-04: Percent Recovery is outside of established control limits.		
<p>1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.</p> <p>2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);</p> <p>3. NA = Not applicable;</p> <p>4. NR = Not reviewed;</p> <p>5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).</p>			



## 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
Benzene	71-43-2	78.10	0.200	0.639	0.605	1.93		1	<a href="#">WG1932122</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1932122</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
Ethylbenzene	100-41-4	106	0.200	0.867	0.249	1.08		1	<a href="#">WG1932122</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1932122</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.355	1.23		1	<a href="#">WG1932122</a>
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.34	6.90		1	<a href="#">WG1932122</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1932122</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1932122</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.593	4.03	B	1	<a href="#">WG1932122</a>
Toluene	108-88-3	92.10	0.500	1.88	0.983	3.70		1	<a href="#">WG1932122</a>
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1932122</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	4.25	19.9		1	<a href="#">WG1932122</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1932122</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	0.864	3.75		1	<a href="#">WG1932122</a>
o-Xylene	95-47-6	106	0.200	0.867	0.363	1.57		1	<a href="#">WG1932122</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG1932122</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 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
Benzene	71-43-2	78.10	0.200	0.639	0.443	1.42		1	<a href="#">WG1932122</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1932122</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	<a href="#">WG1932122</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1932122</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	<a href="#">WG1932122</a>
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	<a href="#">WG1932122</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1932122</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1932122</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.234	1.59	B	1	<a href="#">WG1932122</a>
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	<a href="#">WG1932122</a>
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1932122</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	11.4	53.3		1	<a href="#">WG1932122</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1932122</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	0.556	2.41		1	<a href="#">WG1932122</a>
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	<a href="#">WG1932122</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				<a href="#">WG1932122</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 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
Benzene	71-43-2	78.10	0.200	0.639	0.883	2.82		1	<a href="#">WG1932122</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1932122</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	<a href="#">WG1932122</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1932122</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.363	1.26		1	<a href="#">WG1932122</a>
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.40	4.13		1	<a href="#">WG1932122</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1932122</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1932122</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.548	3.72	B	1	<a href="#">WG1932122</a>
Toluene	108-88-3	92.10	0.500	1.88	1.02	3.84		1	<a href="#">WG1932122</a>
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1932122</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	19.6	91.6		1	<a href="#">WG1932122</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1932122</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	0.702	3.04		1	<a href="#">WG1932122</a>
o-Xylene	95-47-6	106	0.200	0.867	0.246	1.07		1	<a href="#">WG1932122</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		97.9				<a href="#">WG1932122</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 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	
Benzene	71-43-2	78.10	2000	6390	16600	53000		10000	<a href="#">WG1933255</a>	<sup>1</sup> Cp
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	<a href="#">WG1932122</a>	<sup>2</sup> Tc
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	<a href="#">WG1932122</a>	<sup>3</sup> Ss
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	<a href="#">WG1932122</a>	<sup>4</sup> Cn
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	<a href="#">WG1932122</a>	<sup>5</sup> Tr
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	<a href="#">WG1932122</a>	<sup>6</sup> Sr
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	<a href="#">WG1932122</a>	<sup>7</sup> Qc
Ethylbenzene	100-41-4	106	20.0	86.7	ND	ND		100	<a href="#">WG1932122</a>	<sup>8</sup> Gl
4-Ethyltoluene	622-96-8	120	20.0	98.2	529	2600		100	<a href="#">WG1932122</a>	<sup>9</sup> Al
Isopropylbenzene	98-82-8	120.20	20.0	98.3	2590	12700		100	<a href="#">WG1932122</a>	<sup>10</sup> Sc
Methylene Chloride	75-09-2	84.90	20.0	69.4	72.3	251		100	<a href="#">WG1932122</a>	
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	<a href="#">WG1932122</a>	
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	<a href="#">WG1932122</a>	
Naphthalene	91-20-3	128	63.0	330	ND	ND		100	<a href="#">WG1932122</a>	
1,1,2,2-Tetrachloroethane	79-34-5	168	20.0	137	ND	ND		100	<a href="#">WG1932122</a>	
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	<a href="#">WG1932122</a>	
Toluene	108-88-3	92.10	50.0	188	766	2890		100	<a href="#">WG1932122</a>	
1,1,1-Trichloroethane	71-55-6	133	20.0	109	ND	ND		100	<a href="#">WG1932122</a>	
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	<a href="#">WG1932122</a>	
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	<a href="#">WG1932122</a>	
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	ND	ND		100	<a href="#">WG1932122</a>	
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	ND	ND		100	<a href="#">WG1932122</a>	
2,2,4-Trimethylpentane	540-84-1	114.22	2000	9340	938000	4380000		10000	<a href="#">WG1933255</a>	
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	<a href="#">WG1932122</a>	
m&p-Xylene	1330-20-7	106	40.0	173	ND	ND		100	<a href="#">WG1932122</a>	
o-Xylene	95-47-6	106	20.0	86.7	ND	ND		100	<a href="#">WG1932122</a>	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		182		J1		<a href="#">WG1932122</a>	
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.1				<a href="#">WG1933255</a>	

## Sample Narrative:

L1538557-04 WG1932122: Surrogate failure due to matrix interference

## 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
Benzene	71-43-2	78.10	0.200	0.639	0.621	1.98		1	<a href="#">WG1932122</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1932122</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
Ethylbenzene	100-41-4	106	0.200	0.867	0.268	1.16		1	<a href="#">WG1932122</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1932122</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.240	0.833		1	<a href="#">WG1932122</a>
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	2.23	6.58		1	<a href="#">WG1932122</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1932122</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1932122</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.719	4.88	B	1	<a href="#">WG1932122</a>
Toluene	108-88-3	92.10	0.500	1.88	0.721	2.72		1	<a href="#">WG1932122</a>
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1932122</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	23.9	112		1	<a href="#">WG1932122</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1932122</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	0.799	3.46		1	<a href="#">WG1932122</a>
o-Xylene	95-47-6	106	0.200	0.867	0.338	1.47		1	<a href="#">WG1932122</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.6				<a href="#">WG1932122</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 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
Benzene	71-43-2	78.10	0.200	0.639	0.649	2.07		1	<a href="#">WG1932122</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1932122</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	<a href="#">WG1932122</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1932122</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	<a href="#">WG1932122</a>
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	<a href="#">WG1932122</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1932122</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1932122</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.404	2.74	B	1	<a href="#">WG1932122</a>
Toluene	108-88-3	92.10	0.500	1.88	0.955	3.60		1	<a href="#">WG1932122</a>
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1932122</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	26.8	125		1	<a href="#">WG1932122</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1932122</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	0.568	2.46		1	<a href="#">WG1932122</a>
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	<a href="#">WG1932122</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.1				<a href="#">WG1932122</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 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
Benzene	71-43-2	78.10	0.200	0.639	0.503	1.61		1	<a href="#">WG1932122</a>
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	<a href="#">WG1932122</a>
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	<a href="#">WG1932122</a>
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	<a href="#">WG1932122</a>
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	<a href="#">WG1932122</a>
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	<a href="#">WG1932122</a>
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.441	1.53		1	<a href="#">WG1932122</a>
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.28	3.77		1	<a href="#">WG1932122</a>
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	<a href="#">WG1932122</a>
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	<a href="#">WG1932122</a>
Tetrachloroethylene	127-18-4	166	0.200	1.36	5.09	34.6		1	<a href="#">WG1932122</a>
Toluene	108-88-3	92.10	0.500	1.88	0.649	2.44		1	<a href="#">WG1932122</a>
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	<a href="#">WG1932122</a>
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	<a href="#">WG1932122</a>
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	<a href="#">WG1932122</a>
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	24.6	115		1	<a href="#">WG1932122</a>
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	<a href="#">WG1932122</a>
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	<a href="#">WG1932122</a>
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	<a href="#">WG1932122</a>
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				<a href="#">WG1932122</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Method Blank (MB)

(MB) R3841772-2 09/25/22 10:20

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
Chloroethane	U		0.0996	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Isopropylbenzene	U		0.0777	0.200
Methylene Chloride	U		0.0979	0.200
2-Butanone (MEK)	U		0.0814	1.25
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	0.0936	U	0.0814	0.200
Toluene	U		0.0870	0.500
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	99.8			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

(LCS) R3841772-3 09/25/22 13:10 • (LCSD) R3841772-1 09/25/22 09:50

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Benzene	3.75	3.79	3.99	101	106	70.0-130			5.14	25
Chloroethane	3.75	3.93	4.16	105	111	70.0-130			5.69	25
1,2-Dichloroethane	3.75	3.83	4.03	102	107	70.0-130			5.09	25
1,1-Dichloroethane	3.75	3.85	4.06	103	108	70.0-130			5.31	25
1,1-Dichloroethene	3.75	3.93	4.19	105	112	70.0-130			6.40	25
cis-1,2-Dichloroethene	3.75	3.87	4.09	103	109	70.0-130			5.53	25



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

(LCS) R3841772-3 09/25/22 13:10 • (LCSD) R3841772-1 09/25/22 09:50

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
trans-1,2-Dichloroethene	3.75	3.93	4.16	105	111	70.0-130			5.69	25
Ethylbenzene	3.75	3.98	4.14	106	110	70.0-130			3.94	25
4-Ethyltoluene	3.75	4.06	4.29	108	114	70.0-130			5.51	25
Isopropylbenzene	3.75	3.96	4.22	106	113	70.0-130			6.36	25
Methylene Chloride	3.75	3.92	4.25	105	113	70.0-130			8.08	25
Methyl Ethyl Ketone	3.75	3.81	4.12	102	110	70.0-130			7.82	25
MTBE	3.75	3.94	4.18	105	111	70.0-130			5.91	25
Naphthalene	3.75	4.14	4.41	110	118	70.0-159			6.32	25
1,1,2,2-Tetrachloroethane	3.75	4.00	4.20	107	112	70.0-130			4.88	25
Tetrachloroethylene	3.75	4.28	4.08	114	109	70.0-130			4.78	25
Toluene	3.75	3.85	4.07	103	109	70.0-130			5.56	25
1,1,1-Trichloroethane	3.75	3.79	4.01	101	107	70.0-130			5.64	25
1,1,2-Trichloroethane	3.75	3.78	4.00	101	107	70.0-130			5.66	25
Trichloroethylene	3.75	3.86	4.05	103	108	70.0-130			4.80	25
1,2,4-Trimethylbenzene	3.75	4.06	4.34	108	116	70.0-130			6.67	25
1,3,5-Trimethylbenzene	3.75	4.03	4.35	107	116	70.0-130			7.64	25
2,2,4-Trimethylpentane	3.75	3.87	4.14	103	110	70.0-130			6.74	25
Vinyl chloride	3.75	4.05	4.32	108	115	70.0-130			6.45	25
m&p-Xylene	7.50	8.20	8.60	109	115	70.0-130			4.76	25
o-Xylene	3.75	3.97	4.18	106	111	70.0-130			5.15	25
<i>(S) 1,4-Bromofluorobenzene</i>				100	101	60.0-140				

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Tr

<sup>6</sup>Sr

<sup>7</sup>Qc

<sup>8</sup>Gl

<sup>9</sup>Al

<sup>10</sup>Sc

Method Blank (MB)

(MB) R3842111-3 09/28/22 00:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Benzene	U		0.0715	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
<i>(S) 1,4-Bromofluorobenzene</i>	95.0			60.0-140

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

(LCS) R3842111-1 09/27/22 23:06 • (LCSD) R3842111-2 09/27/22 23:36

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Benzene	3.75	3.95	3.91	105	104	70.0-130			1.02	25
2,2,4-Trimethylpentane	3.75	4.17	4.16	111	111	70.0-130			0.240	25
<i>(S) 1,4-Bromofluorobenzene</i>				102	101	60.0-140				

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

# 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 Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
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

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.



# ACCREDITATIONS & LOCATIONS

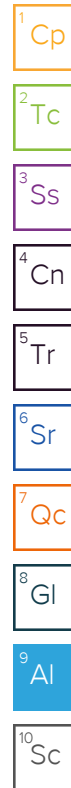
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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:  
**Terracon - Ft. Worth, TX**  
 1801 Handley Ederville Rd.  
 Fort Worth, TX 76118

Billing Information:  
**Accounts Payable**  
 1801 Handley Ederville Rd.  
 Fort Worth, TX 76118



12065 Lebanon Road Mt Juliet, TN 37122  
 Phone: 615-758-5858 Alt: 800-767-5859  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

Report To:  
**Kyle Lindquist**

Email To:  
 kyle.lindquist@terracon.com

Project Description:  
**Rosedale Project**

City/State Collected:

Please Circle:  
 PT MT CT ET

Phone:  
**817-591-2838**

Client Project #  
**95207647 TASK 3.6**

Lab Project #  
**TERRFWTX-95207647**

SDG # **L1538557**

**A031**

Collected by (print):  
*KLL*

Site/Facility ID #

P.O. #

Collected by (signature):

**Rush?** (Lab MUST Be Notified)  
 Same Day  Three Day  
 Next Day  Five Day  
 Two Day

Date Results Needed

Sample ID	Can #	Flow Cont. #	Collection		Canister Pressure/Vacuum		
			Date	Time	Initial	Final	
SGP-1	20267	22328	9/21	1143	28	5	X
SGP-2	20211	9598		1131	30	5	X
SGP-3	20581	10382		1048	29	5	X
SGP-4	20660	22392		1028	27	5	X
SGP-5	20618	22353		1008	27	5	X
SGP-6	20697	20358		949	30	5	X
FB-1	20536	22313	↓	1151	29	5	X

TO-15 Summa

Acctnum: **TERRFWIX**  
 Template: **T214156**  
 Prelogin: **P951831**  
 PM: 3828 - Jennifer A McCurdy  
 PB: *CSA 09/19/22*  
 Shipped Via: **1st Overnight**

Remarks: *Selects VOCs list to com*

**Sample Receipt Checklist**  
 COC Seal Present/Intact: Y N If Applicable  
 COC Signed/Accurate: Y N VOA Zero Headspace: Y N  
 Bottles arrive intact: Y N Pres. Correct/Check: Y N  
 Correct bottles used: Y N  
 Sufficient volume sent: Y N  
 RAD Screen <0.5 mR/hr: Y N **+1 empty**

Relinquished by: (Signature)   
 Date: *9/21/22* Time: *1600*

Relinquished by: (Signature)   
 Date: Time:

Relinquished by: (Signature)   
 Date: Time:

Samples returned via:  
 UPS  FedEx  Courier  \_\_\_\_\_  
 Tracking # **5349 7835 6781**

Received by: (Signature)   
 Date: *9/22/22* Time: *900*

Hold #  
 Condition: (lab use only) *OK*  
 COC Seal Intact: Y N NA  
 NCF:

**From:** [Lindquist, Kyle C](#)  
**To:** [Jennifer Mccurdy](#)  
**Subject:** RE: 95207647 Task 3.6 - Suma Canister Request  
**Date:** Monday, September 19, 2022 1:59:00 PM  
**Attachments:** [image001.png](#)

---

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.

Thank you.

Kyle

**Kyle C. Lindquist**  
Project Scientist | Environmental



1801 Handley Ederville Road | Fort Worth, Texas 76118  
D (817) 591-2838 | O (817) 268-8600 | M (817) 991-9228  
[kyle.lindquist@terracon.com](mailto:kyle.lindquist@terracon.com) | [Terracon.com](http://Terracon.com)

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**From:** Jennifer Mccurdy <[Jennifer.Mccurdy@pacelabs.com](mailto:Jennifer.Mccurdy@pacelabs.com)>  
**Sent:** Monday, September 19, 2022 1:51 PM  
**To:** Lindquist, Kyle C <[Kyle.Lindquist@terracon.com](mailto:Kyle.Lindquist@terracon.com)>  
**Subject:** RE: 95207647 Task 3.6 - Suma Canister Request

Air Shipping says yes, so I will get this scheduled now for tomorrow's delivery. ~Jen

---

**From:** Lindquist, Kyle C <[Kyle.Lindquist@terracon.com](mailto:Kyle.Lindquist@terracon.com)>  
**Sent:** Monday, September 19, 2022 1:27 PM  
**To:** Jennifer Mccurdy <[Jennifer.Mccurdy@pacelabs.com](mailto:Jennifer.Mccurdy@pacelabs.com)>  
**Subject:** 95207647 Task 3.6 - Suma Canister Request

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.

Jen,

Would you be able to have 8 x 1-Liter suma canisters/sample trains delivered by EOD tomorrow?

95207647 task 3.6  
Rosedale Project

Please let me know if this is possible.

Thank you,  
Kyle

## Kyle C. Lindquist

Project Scientist | Environmental



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