SUMMARY OF SOIL ASSESSMENT ACTIVITIES PERFORMED FOR CITY OF CHELAN COLUMBIA TO SANDERS WATER AND SEWER MAIN REPLACEMENT PROJECT

June 15, 2022

Prepared for:
City of Chelan
135 E. Johnson Avenue
Chelan, Washington 98816

Prepared by:
Leidos, Inc.
11824 North Creek Parkway N, Suite 101
Bothell, Washington 98011

On Behalf of:
Resource Environmental, LLC
925 Salida Del Sol Drive
Paso Robles, California 93446

leidos

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Russell S. Shropshire, PE
Principal Engineer

leidos

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SUMMARY OF SOIL ASSESSMENT ACTIVITIES PERFORMED FOR CITY OF CHELAN COLUMBIA TO SANDERS WATER AND SEWER MAIN REPLACEMENT PROJECT

1. INTRODUCTION AND BACKGROUND

Leidos, Inc. (Leidos), has prepared this report on behalf of Resource Environmental, LLC (RELLC), an environmental service provider to Chevron Environmental Management and Real Estate Company (Chevron), to document the performance and findings of work conducted to assess soils excavated for the City of Chelan's Columbia to Sanders Water and Sewer Main Replacement project (the Project).

The Project undertaken by the City consisted of replacing previously existing water supply and sanitary sewer main lines, and installation of new storm sewer infrastructure along an approximately two block section of the alley north of E. Woodin Avenue, between Columbia Street and Sanders Street. Per the plans and specifications for the Project, excavation depths of approximately 12 or more feet were anticipated in association with the sanitary sewer main replacement.

Due to the Project's location, RELLC recognized the potential that excavation activities associated with the Project may encounter known areas of petroleum-contaminated soil (PCS) currently associated with the Chelan Chevron Site, which is an ongoing environmental investigation project being performed under the direction of the Washington State Department of Ecology. The approximate boundaries of the Project area and the Chelan Chevron Site are shown in Figure 1.

To address the potential environmental risk associated with this situation, RELLC engaged the City and worked cooperatively with Chelan Public Works, and the City's contractor (KRCI) to develop a soil management plan (SMP) for the Project. RELLC and the City also entered into an agreement to facilitate reimbursement of any incremental costs incurred by the City for handling and management of PCS determined to be the responsibility of Chevron.

The SMP identified an area of interest (the RELLC AOI) in the Project area where it was estimated that PCS resulting from the Chelan Chevron Site may be encountered (Figure 2). Within this area, representatives for RELLC were to observe the excavation activities, screen excavated soils for indications of petroleum impact, and provide direction to the City on segregation of potential PCS that should not be reused as backfill for the Project.

The Project was generally implemented in a phased approach, with the first phase focusing on the section of the alley from Columbia Street to Emerson Street (100 Block), and the second phase focusing on the section from Emerson Street to Sanders Street (200 Block).

2. 100 BLOCK – COLUMBIA TO EMERSON

This section provides a summary of work performed by Leidos between February 25 and March 24 along the 100 Block section of the alley, between Columbia Street and Emerson Street.

2.1 DISCOVERY AND ASSESSMENT OF ABANDONED USTS

On February 14, 2022, Leidos received notice from the City that three underground storage tanks (USTs) had been discovered while conducting initial shallow soil excavation along the 100 Block section of the alley. The USTs were reported to be present behind the buildings at 119 E. Woodin Avenue (currently Marcela's Cocina Mexicana) and 125 E. Woodin Avenue (currently Bear Foods Natural Market). On the following day (February 15), Leidos received notice that another abandoned UST was discovered behind the property at 135 E. Woodin Avenue (currently Ruby Theatre).

On Friday, February 25, Leidos personnel visited the Project area to assist the City with investigation of the abandoned USTs discovered and to observe UST decommissioning activities being performed for the City by Spokane Environmental Solutions (SES) for the UST behind the Ruby Theatre. The Ruby Theatre UST was reportedly identified for removal by the City due to its proximity to the planned alignment of the new water and/or sewer main. By the time of Leidos' visit to the Project area, a total of five (5) abandoned USTs had been discovered in association with the Project.[1] The approximate locations of these USTs are identified as UST-A1 through UST-A5 on Figure 3.

Leidos field personnel mapped the locations of the abandoned USTs and made measurements of their dimensions, to the extent possible. This effort was assisted by the City of Chelan Public Works, which provided a vac-truck crew to partially unearth the USTs to facilitate their assessment.

Leidos collected soil samples adjacent to each of the five USTs that had been discovered to that point. Samples were collected with a hand auger and screened in the field for indications of petroleum impact by visual and olfactory observations, sheen testing, and vapor headspace measurements using a photoionization detector (PID). Based on the field screening results, a subset of the samples collected were submitted to Pace Analytical for further analysis by the following laboratory methods:

- Gasoline-range organics (GRO) by Method NWTPH-Gx;
- Diesel-range organics (DRO) and residual-range organics (RRO [alternatively referred to as heavy oils]) by Method NWTPH-Dx; and
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8260.

Laboratory analytical results for soil samples are summarized in Table 1 and copies of the laboratory analytical reports are provided in Appendix A. Results of the February 25 sampling event were originally reported to the City by email on March 9, following receipt of results from the laboratory. Additional details regarding the sampling performed and analytical results for each UST location are provided in the following subsections.

2.1.1 119 E. Woodin Avenue

One UST was discovered in the alley on or adjacent to the property at 119 E. Woodin Avenue (currently Marcela's Cocina Mexicana). Field observations and measurements by Leidos

[1] A sixth UST was later found within the 100 Block section of the Project on March 24, on the property at 125 E. Woodin Avenue. See Section 2.1.2 for additional details.

personnel indicate that this UST was oriented approximately parallel to the alley and was approximately 6 feet long and 3 feet in diameter (approximately 300 gallons total capacity). The top of this UST was approximately 3 feet below the ground surface.

For the sampling conducted by Leidos on February 25, 2022, this UST was identified as UST-A1. Leidos advanced one hand auger boring adjacent to the UST, near the NW corner, from approximately 5 to 11 feet below the original ground surface (bgs) [this hand auger boring was initiated at the approximate bottom depth of a water-vac boring previously advanced earlier that day by the City's Public Works crew to identify the lateral extents of the UST]. Based on field screening results that provided indications of petroleum impact, three samples (collected from depths of 8, 10, and 11 feet bgs) were submitted for laboratory analysis. Laboratory results indicate that petroleum-range hydrocarbon contamination (predominantly diesel-range organics [DRO]) was present in each of the three samples submitted. The sample collected at 11 feet bgs contained DRO at a concentration of 2,440 milligrams per kilogram (mg/kg), which exceeds Washington State's Model Toxics Control Act (MTCA) Method A cleanup level for unrestricted land use, 2,000 mg/kg (Ecology, 2013).

Per follow-up communication with the City, Leidos understands that this UST was later removed on March 21 by KRCI in association with replacement of the water main along the 100 Block. However, we are not aware of any further sampling or documentation associated with the closure of this UST.

2.1.2 125 E. Woodin Avenue

A total of four abandoned USTs were discovered in the alley along the north side of the property at 125 E. Woodin Avenue (currently Bear Foods Natural Market).

At the time of Leidos' field visit on February 25, only three of the four USTs at this address had been discovered. For the purposes of that day's sampling effort, these USTs were referred to as UST-A2, UST-A4, and UST-A5. Approximate locations are shown on Figure 3. The top of each UST was approximately 3 to 4 feet bgs. However, due to the orientation and location of these USTs, which were perpendicular to the alley and predominantly underlying the adjacent building, Leidos was not able to make measurements to determine their capacity.

Leidos personnel advanced one hand auger boring adjacent to the north end of each of these three USTs. Field screening results for the samples collected at UST-A2 and UST-A4 did not display strong indications of petroleum impact. However, soil samples collected at UST-A5 displayed strong odor, heavy sheen, and elevated PID readings. In total, seven soil samples from these locations were submitted for laboratory analysis, two each from UST-A2 and UST-A4, and three samples from UST-A5. Laboratory results indicate that the samples collected at UST-A2 and UST-A4 contained low level concentrations of DRO and RRO, below MTCA Method A cleanup levels. All three of the samples collected at UST-A5 contained GRO, DRO, benzene, and xylenes above Method A cleanup levels. In the sample collected from 5 feet bgs, DRO was detected at a concentration of 51,800 mg/kg, and GRO and benzene were detected at concentrations two orders of magnitude higher than their Method A cleanup levels. Toluene and ethylbenzene were also detected above Method A cleanup levels in the samples collected at 5 and 7.5 feet bgs from this location.

On March 24, a fourth abandoned UST was encountered behind the Bear Foods building during installation of the new water main, which was located several feet south of the sewer main. The

approximate location of this UST is identified with the sampling location ID 125-40 on Figure 3. The UST was encountered approximately 3.5 feet below the original ground surface and was estimated to be approximately 3 feet in diameter. Like the other three USTs on this property, this UST was oriented perpendicular to the alley and was partially underlying the Bear Foods building. Therefore, the length of the tank could not be determined. One soil sample (125-40-S-6-220324) was collected along the north end of this UST from approximately 6 to 6.5 feet bgs (the estimated bottom depth of the UST), which was field screened and submitted to Pace Analytical for laboratory analysis. This sample was found to contain low levels of DRO, RRO and xylenes, all below Method A cleanup levels.

2.1.3 135 E. Woodin Avenue

One UST was discovered in the alley on or adjacent to the property at 135 E. Woodin Avenue (currently the Ruby Theatre) on or about February 15, 2022. At the time of Leidos' field visit on February 25, this UST was being decommissioned by SES, under contract to the City. SES prepared a letter report summarizing their decommissioning activities, which is dated March 9, 2022 (SES, 2022). SES reported the UST to be 72 inches in length and 48 inches in diameter (approximate 500-gallon capacity). A vac-truck was used to remove residual liquids from the UST and then the tank was cut open and entered by SES personnel to remove any remaining sludge or solid materials. One soil sample was collected immediately below the UST (approximately 8 feet bgs) by cutting a hole through the bottom of the tank after it was cleaned. This sample was analyzed for DRO and RRO by the Eurofins laboratory in Spokane, Washington. Results indicate low-level detections of DRO and RRO (81 mg/kg and 47 mg/kg, respectively) well below MTCA Method A cleanup levels. Leidos collected two soil samples in association with this work from approximately 8 feet and 9 feet bgs (sample location ID UST-A3). Analytical results for these samples were similar to the SES results, with low-level detections of DRO and RRO below Method A cleanup levels. GRO and BTEX were not detected in either of these samples at concentrations above the reported detection limit (RDL) for these analyses.

2.2 ASSESSMENT OF SOILS EXCAVATED DURING SANITARY SEWER AND WATER MAIN REPLACEMENT

Leidos personnel returned to Chelan to observe excavation activities associated with installation of the sanitary and water main lines in the RELLC AOI section of the 100 Block between March 9 and March 24. During this work, soil samples were routinely collected for field screening by the methods previously described in Section 2.1 for indications of petroleum impact. Samples were collected by various methods, as allowed by site conditions and the work being performed by KCRI, and included grab samples collected from the trench sidewalls at specific areas of interest (i.e., areas of perceived soil staining or soils adjacent to sub-grade piping or USTs) and samples from the trench base that were generally collected from the soil spoils pile immediately after placement. Based on field screening results, a select group of these samples were submitted for the laboratory analyses. Results of these analyses are presented in Table 1 and are also shown on Figure 3.

Based on soil field screening results for the 100 Block excavation in the RELLC AOI, no excavated soils were determined to meet the specifications for Category 3/4 soil, as defined by the SMP for the project. Although Category 3/4 soils were encountered in this area at sampling location ID 125-68, where GRO was detected at a concentration of 110 mg/kg, soils from this

vicinity did not require removal for the Project. Therefore, all soils excavated within the 100 Block portion of the Project were approved for reuse as backfill in the Project area.

3. 200 BLOCK – EMERSON TO SANDERS

Leidos representatives did not observe soil excavation activities associated with replacement of the sewer main within the 200 Block section of the Project because RELLC was not notified of the City's intent to conduct this work in April and May 2022[2]. Instead, Leidos' involvement with this phase of the Project began on April 27, while in Chelan to conduct groundwater monitoring activities for the Chelan Chevron Site.

3.1 DISCOVERY AND ASSESMENT OF ABANDONED AND KNOWN USTS

3.1.1 221 E. Woodin Avenue

On April 27, Leidos was informed by an on-site inspector for RH2 (City's engineering subcontractor) of a release from an abandoned UST discovered the previous afternoon on or adjacent to the property at 221 E. Woodin Avenue (currently Jerry's Auto Supply and Chelan Printing & Custom Signs). The eastern end of the UST was reportedly struck by an excavator bucket while clearing soil for a side sewer connection to the adjacent building. An unknown amount of liquid was reportedly released from the UST, which drained into the adjacent open trench for the sanitary sewer line. The UST was approximately 4 feet in diameter and 7 feet long (approximately 650-gallon capacity) and was oriented parallel to the alley. The top of the UST was approximately 2.5 feet bgs.

Later that day, a representative for RH2 visited the Project area to assess the release and to direct soil removal by KRCI to address the release. Excavated soil was reportedly transported to a Public Works yard facility for temporary storage until offsite disposal could be coordinated.

On April 28, Leidos and RH2 collected a sample of the liquid remaining in the UST (sample ID 221-UST-W-220428). The liquid appeared to be water with a heavy sheen and/or hydrocarbon blebs, with a strong petroleum odor. This sample was submitted to Pace Analytical for the following analyses:

- GRO by Method NWTPH-Gx;
- DRO and RRO by Method NWTPH-Dx;
- BTEX, 1,2-dichloroethane (ethylene dichloride [EDC]), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride by USEPA Method 8260;
- Ethylene dibromide (EDB) by USEPA Method 8011; and
- Lead by USEPA 6010.

Analytical results for the liquid sample indicate that it contained DRO at a concentration of 377,000 micrograms per liter (µg/l) with lesser amounts of GRO (18,900 µg/l) and RRO (36,600 µg/l). BTEX, PCE, TCE, EDB, EDC, and vinyl chloride were not detected, but the sample

[2] Based on previous communication with the City, RELLC understood that the 200 Block phase of the project would not be undertaken until sometime after August 2022.

contained lead at a concentration of 18.5 µg/l. These sample results are also presented in Table 2.

Based on discussions with the laboratory project manager, Mr. Brian Ford of Pace Analytical, the GRO result for the UST contents sample is believed to be associated with "overlap" of diesel-range organics being detected within the tail-end of the gasoline-range. The lack of BTEX detections in this sample provide further evidence to suggest that this UST was not previously used for gasoline storage. Based on this information, as well as the size and observed plumbing connections to the tank, Leidos believes this UST was likely used solely for heating oil storage in the past.

On May 2, Graymar Environmental, under contract with KRCI, pumped the remaining liquid from the UST. It is estimated that several hundred gallons of petroleum impacted water was removed from the tank. A granular absorbent material was then used to capture any residual free liquids in the tank.

Further over-excavation of the trench to the east of the UST was performed on May 2 and May 3, under the direction of RH2, to address the release from this tank. The over-excavated area generally extended to the east approximately 40 feet from the eastern end of the UST, on the south side of the new sewer main line. RH2 collected soil samples along the base and sidewalls of the over-excavated area to confirm that the lateral and vertical extents of the release had been addressed. On May 3, Leidos collected two soil samples near the eastern bounds of the over-excavated area, which were collected in association with sampling being conducted by RH2. A sample of the southern sidewall of the trench was collected at sample location ID 221-112-9 at a depth of approximately 8.5 feet bgs, and a trench bottom sample was collected at sample location ID 221-112-10.5 at a depth of approximately 10.5 feet bgs. Neither of these two samples contained GRO, DRO, RRO or BTEX at concentrations above the laboratory RDL.

Following completion of the over-excavation activities, Leidos advanced two hand auger borings near the northwest and northeast corners of the UST. At the northwest corner (sample location ID 221-66.5-5.75) samples were collected between 5.5 and 9 feet bgs. Field screening results for these samples showed no indications of petroleum impact. One soil sample from this location, which was collected at a depth of approximately 8.5 feet bgs, was submitted for laboratory analysis. This sample was found to contain low-level detections of DRO only.

Near the northeast corner of the UST (sample location ID 221-74-5.25) soil samples were collected from approximately 4 to 8 feet bgs. Field screening results for all the samples provided indications of low to moderate petroleum impact. Two samples from this location, one collected at a depth of approximately 4 feet bgs and the other collected at approximately 7.5 feet bgs, were submitted for laboratory analysis. Both samples were found to contain detectable concentrations of GRO, DRO, and RRO, with the 7.5-foot sample containing DRO at a concentration of 6,510 mg/kg, which is above the Method A cleanup level. BTEX was not detected in either of these samples. Another sample was collected from below the midpoint of this UST (9.5 feet bgs) on May 4 (sample location ID 221-71-3.5). This sample was found to contain detectable levels of DRO and RRO that were below Method A cleanup levels.

On May 5, Leidos observed the in-place closure of this UST by filling with concrete. A 1-foot diameter hole was created on the top eastern end of the UST, and a concrete truck delivered enough concrete into this hole to fill and overfill the tank. This UST was then buried by soil.

Following receipt of laboratory results, Leidos provided notice to the City on May 24 regarding the presence of PCS containing DRO at a concentration above the Method A cleanup level remaining in place near this UST. Based on a telephone conversation with the City Engineer, Mr. Travis Denham, on May 24, it is Leidos' understanding that the City intended to conduct additional PCS removal from around this UST using water-vac excavation equipment. However, we have not received any additional information from the City to confirm the status or results of that work.

3.1.2 205 E. Woodin Avenue

Leidos was previously aware of a presumed inactive heating oil UST on the property at 205 E. Woodin Avenue (currently Novedades Lupita and Sunworks Boutique). A sticker on the above-grade fill port for this UST still reads "Chevron Heating Fuel No. 2". On May 4, while excavation was being performed in this vicinity for installation of the water supply main line, Leidos collected one soil sample to the north of this UST at a depth of approximately 5 feet bgs (sample ID 205-24-7-5-S-220504). This sample was found to contain low-level detections of DRO and RRO below MTCA Method A cleanup levels. GRO and BTEX were not detected above the RDL. The UST at this location was not unearthed or visible during excavation work for the Project; therefore, Leidos was not able to confirm the depth or size of this UST.

3.1.3 209 E. Woodin Avenue

On May 5, one abandoned UST was discovered in the alley on or adjacent to the property at 209 E. Woodin Avenue (currently Fraternal Order of Eagles). This UST was encountered during installation of a valve chamber for the water supply line. The UST was determined to be approximately 7.5 feet long and was estimated to be 4 feet in diameter (approximately 700-gallon capacity). The top of the tank was at approximately 3.5 feet bgs.

Leidos used a hand auger to collect soil samples to the north of the UST, from approximately 3.7 to 10.2 feet below the previously existing grade surface. Field screening results for samples collected in this interval indicated the potential presence of petroleum contamination from approximately 4.7 to 10.2 feet. Three samples collected from this location (sample location ID 209-29-5) at depths of 4.7, 7.7, and 9.9 feet bgs were submitted for laboratory analysis. BTEX were not detected in any of the samples above the RDLs; but GRO, DRO, and HRO were detected in all the samples, and the samples collected at 4.7 feet and 7.7 feet bgs contained GRO and DRO above MTCA Method A cleanup levels. DRO was detected at a concentration of 61,100 mg/kg in the soil sample collected from 7.7 feet bgs.

Based on the predominance of DRO in the analytical results, as well as the lack of BTEX detections, Leidos believes that the GRO results for these samples are associated with "overlap" into the gasoline range, and therefore do not indicate that this UST was previously used for gasoline storage.

Based on the field screening results for the soil samples collected adjacent to this UST, Leidos provided notice to the City of a suspected release from the tank on May 6. Leidos followed up with laboratory results confirming a release from this UST on May 23.

3.1.3 234 E. Johnson Avenue

Sometime prior to April 27, an abandoned UST was discovered by KRCI during connection of a temporary water supply line to the building at 234 E. Johnson Avenue (based on conversation with Brian Kniffen, RH2 site inspector).

On May 6, Leidos collected soil samples in this area in association with the installation of a water supply line valve chamber in this area. The top of the UST was less than 3 feet below the top of the adjacent sidewalk that is present along the south side of the 234 E. Johnson Avenue building. The bottom of the tank was at least 5.5 feet bgs. At the time that this work was conducted, Leidos observed that only the eastern-most 5 feet of the UST was exposed. Based on discussions with KRCI personnel, who had previously exposed the western end of the UST, it was estimated to be at least 12 feet long. However, because the entire length of this UST was never unearthed, it is also possible that two USTs, positioned end-to-end in an east-west orientation, may also be present at this location.

Leidos advanced a hand auger boring to the south of the UST and collected samples from between 5.2 and 10.7 feet bgs. Field screening results for these samples did not provide any indications of potential petroleum contamination. One soil sample (sample ID 229-48-18.5-10.2-S-220506) was submitted for laboratory analysis. Results of these analyses indicate no detections above the RDL for GRO, DRO, RRO, or BTEX.

3.2 ASSESSMENT OF SOILS EXCAVATED DURING WATER MAIN REPLACMENT

Leidos observed soil excavation activities associated with installation of the new water supply main and conducted screening of excavated soils between May 3 and May 6, 2022. Based on soil field screening results collected during this phase of the Project, no excavated soils were determined to meet the specifications for Category 3/4 soil, as defined by the SMP for the project. At two locations in the alley north of the property at 221 E. Woodin Avenue, field screening results did indicate the potential presence of low-level petroleum contamination meeting the criteria for classification as Category 2 soil per the SMP. Samples were collected from each of these locations (sample location IDs 221-76-7 and 221-112-7) at a depth of approximately 5 feet bgs that were submitted for further analysis by laboratory methods. Both samples were found to contain detectable concentrations of GRO, DRO, RRO, and xylenes at concentrations below Method A cleanup levels (GRO was detected at concentrations of 98.3 mg/kg and 65.8 mg/kg, which are below the Method A cleanup level of 100 mg/kg for samples without benzene).

Per the SMP for the project, all excavated soils that were field screened by Leidos within the 200 Block portion of the Project were approved for reuse as backfill in the Project area.

4. CONCLUSIONS

Soil assessment activities conducted by Leidos in association with the City of Chelan's Columbia to Sanders Water and Sewer Main Replacement project did not identify any PCS that appeared to have originated from the former service station operations at 141 E. Woodin Avenue or 221 E. Woodin Avenue, or from the active Chelan Chevron service station located at 232 E. Woodin Avenue. Instead, the petroleum impacts encountered appear to have resulted entirely from releases from previously unidentified USTs that were left in place in or adjacent to the alley right-of-way from past use at the adjacent properties.

In total, four UST releases were documented that resulted in petroleum impacts to soil exceeding MTCA Method A cleanup levels. Based on our observations of the work performed, as well as the results of soil sampling conducted to preliminarily assess these releases, petroleum

contamination encountered at the USTs located at 119 E. Woodin Avenue, 125 E. Woodin Avenue, and 209 E. Woodin Avenue appears to be related to historic releases of petroleum products from these USTs, while petroleum contamination encountered at the UST located at 221 E. Woodin Avenue appears to have resulted from the release that occurred on April 26, 2022 during excavation work performed for the Project.

Except for the UST identified as UST-A5, behind the Bear Foods Natural Market, all of the USTs encountered are presumed to have been used solely for heating oil storage. This conclusion is based on the size and locations of the tanks, and sampling results indicating primarily DRO impacts with no or very minor BTEX detections.

Although soil samples collected adjacent to UST-A5 were found to contain primarily DRO, these samples also contained very high concentrations of GRO and BTEX, with GRO and benzene concentrations detected on the order of two magnitudes greater than their Method A cleanup levels. These results are not consistent with this UST being used solely for heating oil, but instead suggest that this UST was also used for storage of gasoline-range petroleum products. The shallow depth at which this contamination was encountered (5 feet bgs) indicates that it is unlikely to have resulted from lateral migration from a distant source. Instead, it seems more likely that these impacts are associated with past garage and/or service station operations that are known to have occurred on the 125 E. Woodin Avenue property beginning around 1920 and continuing at least into the 1940s (SAIC, 2006). In consideration of this information, as well as the property's proximity to groundwater monitoring wells that are known to be impacted by gasoline and diesel-range petroleum products, the property at 125 E. Woodin Avenue is now considered to be a potential contributor to petroleum impacts that have been attributed to the Chelan Chevron Site.

In no case were the soil sampling activities performed by Leidos in association with the Project sufficient to fully delineate the extent of contamination resulting from any of the four UST releases discovered by this work. Soil sample collection was limited by conditions encountered in the field, access for sampling during Project activities, and the sampling methods that could be utilized. Therefore, further assessment, which is outside of Leidos' scope for the Project, will be required to fully assess the nature and extent of these releases.

5. REFERENCES

Ecology (2013). "Model Toxics Control Act Regulation and Statute." Publication no. 94-06.

Leidos (2022). "Soil Management Plan – City of Chelan Columbia to Sanders Water and Sewer Main Replacement Project." February 28.

SAIC (2006). "Remedial Investigation/Feasibility Study Report – Chelan Service Station No. 9-6590." December.

SES (2022). "Underground Storage Tank Decommissioning and Soil Sampling Report – Chelan, WA." March 9.

LIMITATIONS

This technical document was prepared on behalf of RELLC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and Leidos shall have no responsibility or liability for the consequences thereof.

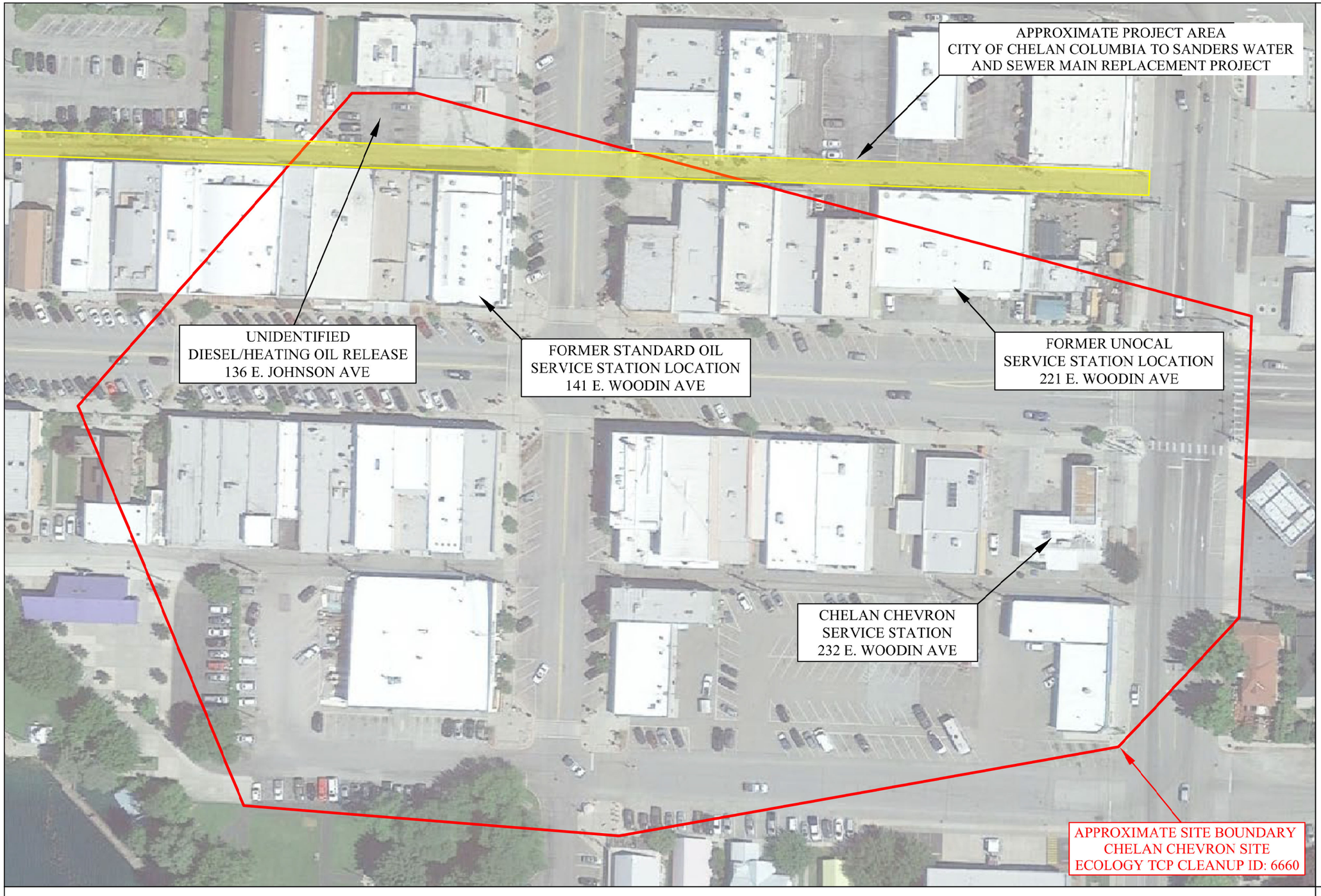
Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from RELLC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.

All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied on by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.

Figures:



N

NOTES
Base Map Source: Google Earth
Imagery Date: 7/1/2017

0 80' 160'

leidos

FIGURE 1
Approximate Boundaries of Project Area and Chelan Chevron Site

FILE NAME:	DATE:
CAP_SSSR.dwg	6/9/2022

100 BLOCK

200 BLOCK

LEGEND

- APPROXIMATE PROJECT AREA FOR CITY OF CHELAN COLUMBIA TO SANDERS WATER AND SEWER MAIN REPLACEMENT PROJECT
- RELLC AREA OF INTEREST (AOI) - ESTIMATED PORTION OF CITY PROJECT AREA WHERE PETROLEUM IMPACTED SOILS RELATED TO THE CHELAN CHEVRON SITE MAY POTENTIALLY BE ENCOUNTERED

N

0 80' 160'

NOTES
Base Map Source: Google Earth
Imagery Date: 7/1/2017

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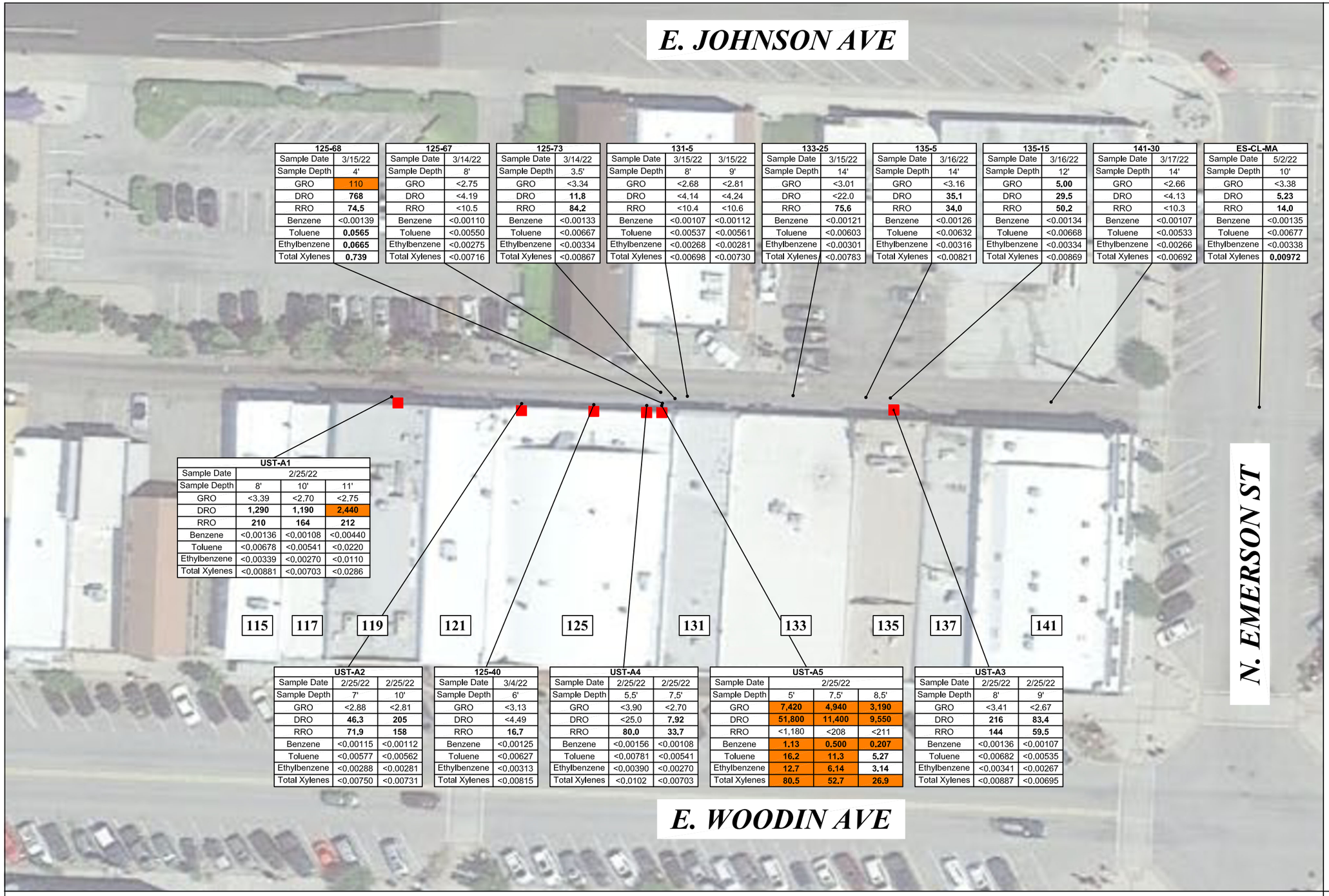
FIGURE 2
Project Area
and RELLC Area of Interest

FILE NAME:	DATE:
CAP_SSSR.dwg	6/9/2022



125-68	
Sample Date	3/15/22
Sample Depth	4'
GRO	110
DRO	**768**
RRO	**74.5**
Benzene	<0.00139
Toluene	**0.0565**
Ethylbenzene	**0.0665**
Total Xylenes	**0.739**

125-67	
Sample Date	3/14/22
Sample Depth	8'
GRO	<2.75
DRO	<4.19
RRO	<10.5
Benzene	<0.00110
Toluene	<0.00550
Ethylbenzene	<0.00275
Total Xylenes	<0.00716

125-73	
Sample Date	3/14/22
Sample Depth	3.5'
GRO	<3.34
DRO	**11.8**
RRO	**84.2**
Benzene	<0.00133
Toluene	<0.00667
Ethylbenzene	<0.00334
Total Xylenes	<0.00867

131-5		
Sample Date	3/15/22	3/15/22
Sample Depth	8'	9'
GRO	<2.68	<2.81
DRO	<4.14	<4.24
RRO	<10.4	<10.6
Benzene	<0.00107	<0.00112
Toluene	<0.00537	<0.00561
Ethylbenzene	<0.00268	<0.00281
Total Xylenes	<0.00698	<0.00730

133-25	
Sample Date	3/15/22
Sample Depth	14'
GRO	<3.01
DRO	<22.0
RRO	**75.6**
Benzene	<0.00121
Toluene	<0.00603
Ethylbenzene	<0.00301
Total Xylenes	<0.00783

135-5	
Sample Date	3/16/22
Sample Depth	14'
GRO	<3.16
DRO	**35.1**
RRO	**34.0**
Benzene	<0.00126
Toluene	<0.00632
Ethylbenzene	<0.00316
Total Xylenes	<0.00821

135-15	
Sample Date	3/16/22
Sample Depth	12'
GRO	**5.00**
DRO	**29.5**
RRO	**50.2**
Benzene	<0.00134
Toluene	<0.00668
Ethylbenzene	<0.00334
Total Xylenes	<0.00869

141-30	
Sample Date	3/17/22
Sample Depth	14'
GRO	<2.66
DRO	<4.13
RRO	<10.3
Benzene	<0.00107
Toluene	<0.00533
Ethylbenzene	<0.00266
Total Xylenes	<0.00692

ES-CL-MA	
Sample Date	5/2/22
Sample Depth	10'
GRO	<3.38
DRO	**5.23**
RRO	**14.0**
Benzene	<0.00135
Toluene	<0.00677
Ethylbenzene	<0.00338
Total Xylenes	**0.00972**

UST-A1			
Sample Date	2/25/22		
Sample Depth	8'	10'	11'
GRO	<3.39	<2.70	<2.75
DRO	**1,290**	**1,190**	**2,440**
RRO	**210**	**164**	**212**
Benzene	<0.00136	<0.00108	<0.00440
Toluene	<0.00678	<0.00541	<0.0220
Ethylbenzene	<0.00339	<0.00270	<0.0110
Total Xylenes	<0.00881	<0.00703	<0.0286

UST-A2		
Sample Date	2/25/22	2/25/22
Sample Depth	7'	10'
GRO	<2.88	<2.81
DRO	**46.3**	**205**
RRO	**71.9**	**158**
Benzene	<0.00115	<0.00112
Toluene	<0.00577	<0.00562
Ethylbenzene	<0.00288	<0.00281
Total Xylenes	<0.00750	<0.00731

125-40	
Sample Date	3/4/22
Sample Depth	6'
GRO	<3.13
DRO	<4.49
RRO	**16.7**
Benzene	<0.00125
Toluene	<0.00627
Ethylbenzene	<0.00313
Total Xylenes	<0.00815

UST-A4		
Sample Date	2/25/22	2/25/22
Sample Depth	5.5'	7.5'
GRO	<3.90	<2.70
DRO	<25.0	**7.92**
RRO	**80.0**	**33.7**
Benzene	<0.00156	<0.00108
Toluene	<0.00781	<0.00541
Ethylbenzene	<0.00390	<0.00270
Total Xylenes	<0.0102	<0.00703

UST-A5			
Sample Date	2/25/22		
Sample Depth	5'	7.5'	8.5'
GRO	**7,420**	**4,940**	**3,190**
DRO	**51,800**	**11,400**	**9,550**
RRO	<1,180	<208	<211
Benzene	**1.13**	**0.500**	**0.207**
Toluene	**16.2**	**11.3**	**5.27**
Ethylbenzene	**12.7**	**6.14**	**3.14**
Total Xylenes	**80.5**	**52.7**	**26.9**

UST-A3		
Sample Date	2/25/22	2/25/22
Sample Depth	8'	9'
GRO	<3.41	<2.67
DRO	**216**	**83.4**
RRO	**144**	**59.5**
Benzene	<0.00136	<0.00107
Toluene	<0.00682	<0.00535
Ethylbenzene	<0.00341	<0.00267
Total Xylenes	<0.00887	<0.00695

LEGEND

141 — PROPERTY ADDRESS

APPROXIMATE LOCATION OF SOIL GRAB SAMPLE

APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK (NOT TO SCALE)

<1.00 — LABORATORY ANALYTICAL RESULT - ANALYTE WAS NOT DETECTED ABOVE THE LABORATORY RDL

50.0 — LABORATORY ANALYTICAL RESULT - ANALYTE WAS DETECTED ABOVE THE LABORATORY RDL

1,000 — LABORATORY ANALYTICAL RESULT - ANALYTE WAS DETECTED ABOVE THE MTCA METHOD A CLEANUP LEVEL

ALL LABORATORY RESULTS REPORTED IN MILLIGRAMS PER KILOGRAM (MG/KG)

N

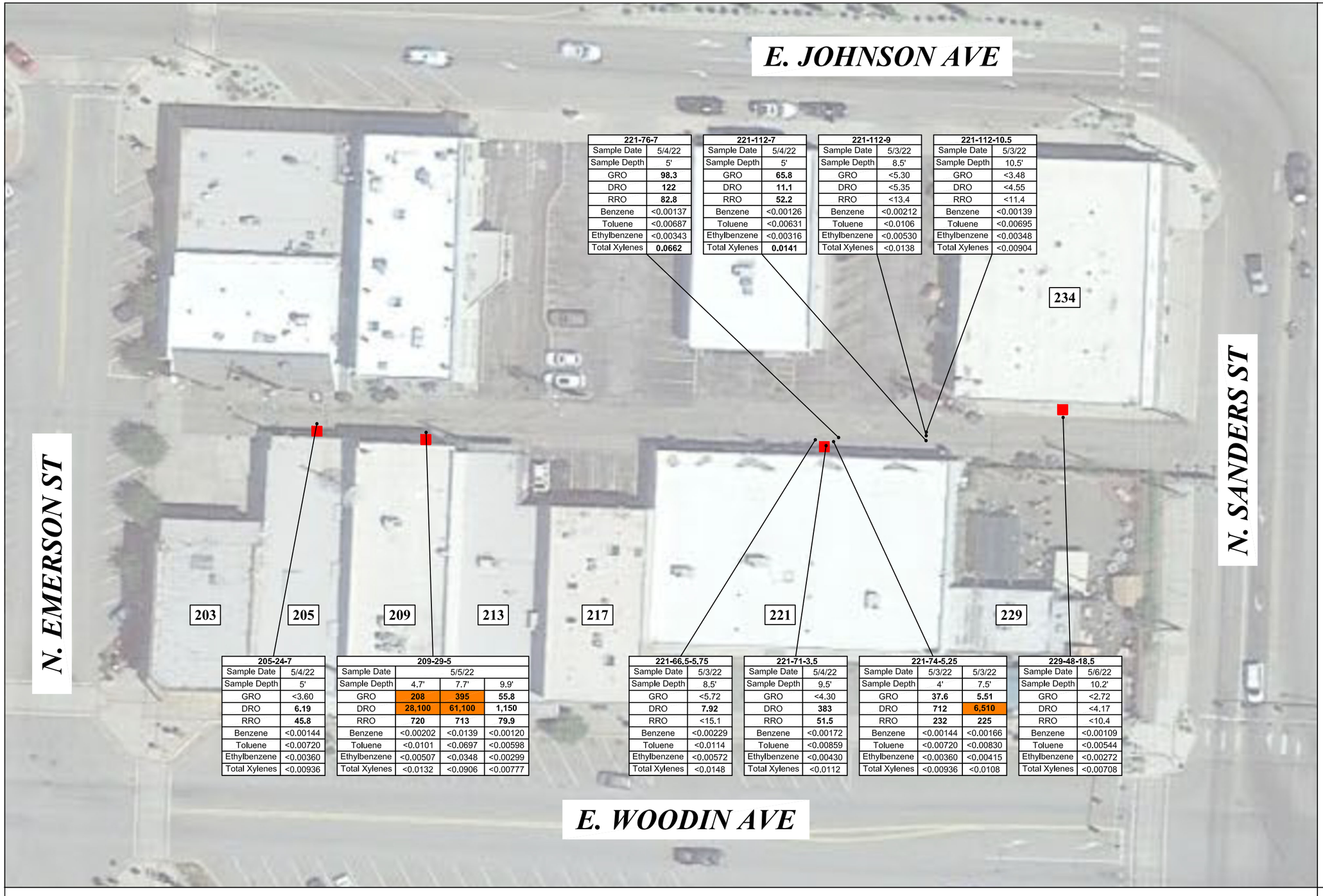
NOTES
Base Map Source: Google Earth
Imagery Date: 7/1/2017

0 40' 80'

leidos

FIGURE 3
Soil Sampling Locations and Results - 100 Block

FILE NAME:	DATE:
CAP_SSSR.dwg	6/8/2022



221-76-7	
Sample Date	5/4/22
Sample Depth	5'
GRO	**98.3**
DRO	**122**
RRO	**82.8**
Benzene	<0.00137
Toluene	<0.00687
Ethylbenzene	<0.00343
Total Xylenes	**0.0662**

221-112-7	
Sample Date	5/4/22
Sample Depth	5'
GRO	**65.8**
DRO	**11.1**
RRO	**52.2**
Benzene	<0.00126
Toluene	<0.00631
Ethylbenzene	<0.00316
Total Xylenes	**0.0141**

221-112-9	
Sample Date	5/3/22
Sample Depth	8.5'
GRO	<5.30
DRO	<5.35
RRO	<13.4
Benzene	<0.00212
Toluene	<0.0106
Ethylbenzene	<0.00530
Total Xylenes	<0.0138

221-112-10.5	
Sample Date	5/3/22
Sample Depth	10.5'
GRO	<3.48
DRO	<4.55
RRO	<11.4
Benzene	<0.00139
Toluene	<0.00695
Ethylbenzene	<0.00348
Total Xylenes	<0.00904

205-24-7	
Sample Date	5/4/22
Sample Depth	5'
GRO	<3.60
DRO	**6.19**
RRO	**45.8**
Benzene	<0.00144
Toluene	<0.00720
Ethylbenzene	<0.00360
Total Xylenes	<0.00936

209-29-5			
Sample Date	5/5/22		
Sample Depth	4.7'	7.7'	9.9'
GRO	**208**	**395**	**55.8**
DRO	**28,100**	**61,100**	**1,150**
RRO	**720**	**713**	**79.9**
Benzene	<0.00202	<0.0139	<0.00120
Toluene	<0.0101	<0.0697	<0.00598
Ethylbenzene	<0.00507	<0.0348	<0.00299
Total Xylenes	<0.0132	<0.0906	<0.00777

221-66.5-5.75	
Sample Date	5/3/22
Sample Depth	8.5'
GRO	<5.72
DRO	**7.92**
RRO	<15.1
Benzene	<0.00229
Toluene	<0.0114
Ethylbenzene	<0.00572
Total Xylenes	<0.0148

221-71-3.5	
Sample Date	5/4/22
Sample Depth	9.5'
GRO	<4.30
DRO	**383**
RRO	**51.5**
Benzene	<0.00172
Toluene	<0.00859
Ethylbenzene	<0.00430
Total Xylenes	<0.0112

221-74-5.25		
Sample Date	5/3/22	5/3/22
Sample Depth	4'	7.5'
GRO	**37.6**	**5.51**
DRO	**712**	**6,510**
RRO	**232**	**225**
Benzene	<0.00144	<0.00166
Toluene	<0.00720	<0.00830
Ethylbenzene	<0.00360	<0.00415
Total Xylenes	<0.00936	<0.0108

229-48-18.5	
Sample Date	5/6/22
Sample Depth	10.2'
GRO	<2.72
DRO	<4.17
RRO	<10.4
Benzene	<0.00109
Toluene	<0.00544
Ethylbenzene	<0.00272
Total Xylenes	<0.00708

LEGEND

- 141 — PROPERTY ADDRESS
- ● — APPROXIMATE LOCATION OF SOIL GRAB SAMPLE
- ■ — APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK (NOT TO SCALE)
- <1.00 — LABORATORY ANALYTICAL RESULT - ANALYTE WAS NOT DETECTED ABOVE THE LABORATORY RDL
- 50.0 — LABORATORY ANALYTICAL RESULT - ANALYTE WAS DETECTED ABOVE THE LABORATORY RDL
- 1,000 — LABORATORY ANALYTICAL RESULT - ANALYTE WAS DETECTED ABOVE THE MTCA METHOD A CLEANUP LEVEL

ALL LABORATORY RESULTS REPORTED IN MILLIGRAMS PER KILOGRAM (MG/KG)

N

NOTES
Base Map Source: Google Earth
Imagery Date: 7/1/2017

0 40' 80'

leidos

FIGURE 4
Soil Sampling Locations and Results - 200 Block

FILE NAME:	DATE:
CAP_SSSR.dwg	6/8/2022

Tables:

Table 1
Soil Sampling Results

Sample Location ID	Sample Description	Sample Depth (Feet bgs)	Date	GRO	DRO	RRO	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)
Method A CULs				**30/100**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**
119 E. Woodin Avenue										
UST-A1	Hand auger samples collected from boring at northwest corner of UST discovered adjacent to 119 E. Woodin Avenue	8	2/25/2022	<3.39	**1,290**	**210**	<0.00136	<0.00678	<0.00339	<0.00881
		10	2/25/2022	<2.70	**1,190**	**164**	<0.00108	<0.00541	<0.00270	<0.00703
		11	2/25/2022	<2.75	**2,440**	**212**	<0.00440	<0.0220	<0.0110	<0.0286
125 E. Woodin Avenue										
UST-A2	Hand auger samples collected from boring at north end of UST discovered partially underlying building at 125 E. Woodin Avenue	7	2/25/2022	<2.88	**46.3**	**71.9**	<0.00115	<0.00577	<0.00288	<0.00750
		10	2/25/2022	<2.81	**205**	**158**	<0.00112	<0.00562	<0.00281	<0.00731
UST-A4	Hand auger samples collected from boring at north end of UST discovered partially underlying building at 125 E. Woodin Avenue	5.5	2/25/2022	<3.90	<25.0	**80.0**	<0.00156	<0.00781	<0.00390	<0.0102
		7.5	2/25/2022	<2.70	**7.92**	**33.7**	<0.00108	<0.00541	<0.00270	<0.00703
UST-A5	Hand auger samples collected from boring at north end of UST discovered partially underlying building at 125 E. Woodin Avenue	5	2/25/2022	**7,420**	**51,800**	<1,180	**1.13**	**16.2**	**12.7**	**80.5**
		7.5	2/25/2022	**4,940**	**11,400**	<208	**0.500**	**11.3**	**6.14**	**52.7**
		8.5	2/25/2022	**3,190**	**9,550**	<211	**0.207**	**5.27**	**3.14**	**26.9**
125-40	Grab sample collected by hand from north side of UST encountered during excavation for water main installation	6	3/24/2022	<3.13	<4.49	**16.7**	<0.00125	<0.00627	<0.00313	<0.00815
125-67	Grab sample collected by hand from southern trench sidewall to assess orange-brown soil staining	8	3/14/2022	<2.75	<4.19	<10.5	<0.00110	<0.00550	<0.00275	<0.00716
125-68	Grab sample collected by hand from trench to assess soil that had sloughed into trench from vicinity of UST-A5 after heavy rain event	4	3/15/2022	**110**	**768**	**74.5**	<0.00139	**0.0565**	**0.0665**	**0.739**
125-73	Grab sample collected by hand from southern trench sidewall to assess soil near inactive subgrade piping	3.5	3/14/2022	<3.34	**11.8**	**84.2**	<0.00133	<0.00667	<0.00334	<0.00867
131 E. Woodin Avenue										
131-5	Grab samples collected by hand from southern trench sidewall to assess soil staining observed during excavation for sewer main installation	8	3/15/2022	<2.68	<4.14	<10.4	<0.00107	<0.00537	<0.00268	<0.00698
		9	3/15/2022	<2.81	<4.24	<10.6	<0.00112	<0.00561	<0.00281	<0.00730
133 E. Woodin Avenue										
133-25	Sample collected from excavator bucket spoils of soil removed during excavation for sewer main installation adjacent to 133 E. Woodin	14	3/15/2022	<3.01	<22.0	**75.6**	<0.00121	<0.00603	<0.00301	<0.00783
135 E. Woodin Avenue										
UST-A3	Soil samples collected in association with UST decommissioning activities conducted by SES	8	2/25/2022	<3.41	**216**	**144**	<0.00136	<0.00682	<0.00341	<0.00887
		9	2/25/2022	<2.67	**83.4**	**59.5**	<0.00107	<0.00535	<0.00267	<0.00695
135-5	Samples collected from excavator bucket spoils of soil removed during excavation for sewer main installation adjacent to 135 E. Woodin	14	3/16/2022	<3.16	**35.1**	**34.0**	<0.00126	<0.00632	<0.00316	<0.00821
135-15		12	3/16/2022	**5.00**	**29.5**	**50.2**	<0.00134	<0.00668	<0.00334	<0.00869

Table 1
Soil Sampling Results

Sample Location ID	Sample Description	Sample Depth (Feet bgs)	Date	GRO	DRO	RRO	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)
Method A CULs				**30/100**	**2,000**	**2,000**	**0.03**	**7**	**6**	**9**
141 E. Woodin Avenue										
141-30	Sample collected from excavator bucket spoils of soil removed during excavation for sewer main installation adjacent to 141 E. Woodin	14	3/17/2022	<2.66	<4.13	<10.3	<0.00107	<0.00533	<0.00266	<0.00692
Emerson Street Right-of-Way										
ES-CL-MA	Sample collected from excavator bucket spoils of soil removed during removal of sanitary sewer manhole at approximate centerline of Emerson Street	10	5/2/2022	<3.38	**5.23**	**14.0**	<0.00135	<0.00677	<0.00338	**0.00972**
205 E. Woodin Avenue										
205-24-7	Sample collected from excavator bucket spoils of soil removed adjacent to UST during excavation for water main installation	5	5/4/2022	<3.60	**6.19**	**45.8**	<0.00144	<0.00720	<0.00360	<0.00936
209 E. Woodin Avenue										
209-29-5	Samples collected from hand auger boring advanced along north side of UST	4.7	5/5/2022	**208**	**28,100**	**720**	<0.00202	<0.0101	<0.00507	<0.0132
		7.7	5/5/2022	**395**	**61,100**	**713**	<0.0139	<0.0697	<0.0348	<0.0906
		9.9	5/5/2022	**55.8**	**1,150**	**79.9**	<0.00120	<0.00598	<0.00299	<0.00777
221 E. Woodin Avenue										
221-66.5-5.75	Sample collected from hand auger boring advanced near NW corner of UST	8.5	5/3/2022	<5.72	**7.92**	<15.1	<0.00229	<0.0114	<0.00572	<0.0148
221-74-5.25	Samples collected from hand auger boring advanced near NE corner of UST	4	5/3/2022	**37.6**	**712**	**232**	<0.00144	<0.00720	<0.00360	<0.00936
		7.5	5/3/2022	**5.51**	**6,510**	**225**	<0.00166	<0.00830	<0.00415	<0.0108
221-71-3.5	Sample collected from hand auger boring advanced at an angle to collect sample from beneath approximate mid-point of UST	9.5	5/4/2022	<4.30	**383**	**51.5**	<0.00172	<0.00859	<0.00430	<0.0112
221-112-9	Grab sample collected by hand from southern trench sidewall to confirm PCS removal associated with UST release to trench	8.5	5/3/2022	<5.30	<5.35	<13.4	<0.00212	<0.0106	<0.00530	<0.0138
221-112-10.5	Grab sample collected by hand from trench bottom to confirm PCS removal associated with UST release to trench	10.5	5/3/2022	<3.48	<4.55	<11.4	<0.00139	<0.00695	<0.00348	<0.00904
221-76-7	Samples collected using hand auger during trenching for water main installation.	5	5/4/2022	**98.3**	**122**	**82.8**	<0.00137	<0.00687	<0.00343	**0.0662**
221-112-7		5	5/4/2022	**65.8**	**11.1**	**52.2**	<0.00126	<0.00631	<0.00316	**0.0141**
229 E. Woodin Avenue										
229-48-18.5	Sample collected from hand auger boring advanced along south side of UST that is present along the north side of the alley	10.2	5/6/2022	<2.72	<4.17	<10.4	<0.00109	<0.00544	<0.00272	<0.00708

Notes:

All cleanup levels and analytical result concentrations are reported in milligrams per kilogram (mg/kg). All analytical results are reported on a dry weight basis.

< - Indicates that the analyte was not detected above the value reported in the table, which is the reported Detection Limit (RDL) for that analysis

55.8 - Values reported in bold text indicate that the analyte was detected at a concentration greater than the RDL and less than the MTCA Method A cleanup level

4,940 - Values reported in bold and highlighted text indicate that the analyte was detected at a concentration greater than the MTCA Method A cleanup level

GRO = Gasoline-range organics

DRO = Diesel-range organics

RRO = Residual-range organics

bgs = below ground surface (measured from the approximate pre-existing ground surface to the top of the soil sample interval)

Table 2
UST Contents Sampling Results

Sample ID	Sample Description	Date	GRO	DRO	RRO	Benzene	Toluene	Ethyl-benzene	Xylenes (Total)	EDB	EDC	PCE	TCE	Vinyl Chloride	Lead
Method A CULs			**800/1,000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**0.01**	5	**5**	**5**	**0.2**	**15**
221-UST-W-220428	Sample of liquid contents of UST discovered on/adjacent to property at 221 E. Woodin Avenue. Sample was collected on 4/28/2022, after release from the UST that reportedly occurred on 4/26/22.	4/28/2022	**18,900**	**377,000**	**36,600**	<0.400	<2.00	<1.00	**86.8**	**<0.02**	<1.00	<1.00	<0.400	<1.00	**18.5**

Notes:

All cleanup levels and analytical result concentrations are reported in micrograms per liter (µg/l)

< - Indicates that the analyte was not detected above the value reported in the table, which is the reported Detection Limit (RDL) for that analysis

<0.02 - Indicates that the analyte was not detected above RDL; however, the RDL is greater than the MTCA Method A cleanup level for this analyte

86.8 - Values reported in bold text indicate that the analyte was detected at a concentration greater than the RDL and less than the MTCA Method A cleanup level

18,900 - Values reported in bold and highlighted text indicate that the analyte was detected at a concentration greater than the MTCA Method A cleanup level

GRO = Gasoline-range organics

DRO = Diesel-range organics

RRO = Residual-range organics

EDB = Ethylene dibromide

EDC = 1,2 dichloroethane (ethylene dichloride)

PCE = Tetrachloroethene

TCE = Trichloroethene

Appendix A:
Laboratory Analytical Reports

ANALYTICAL REPORT

March 09, 2022

Leidos Inc.- Bothell, WA

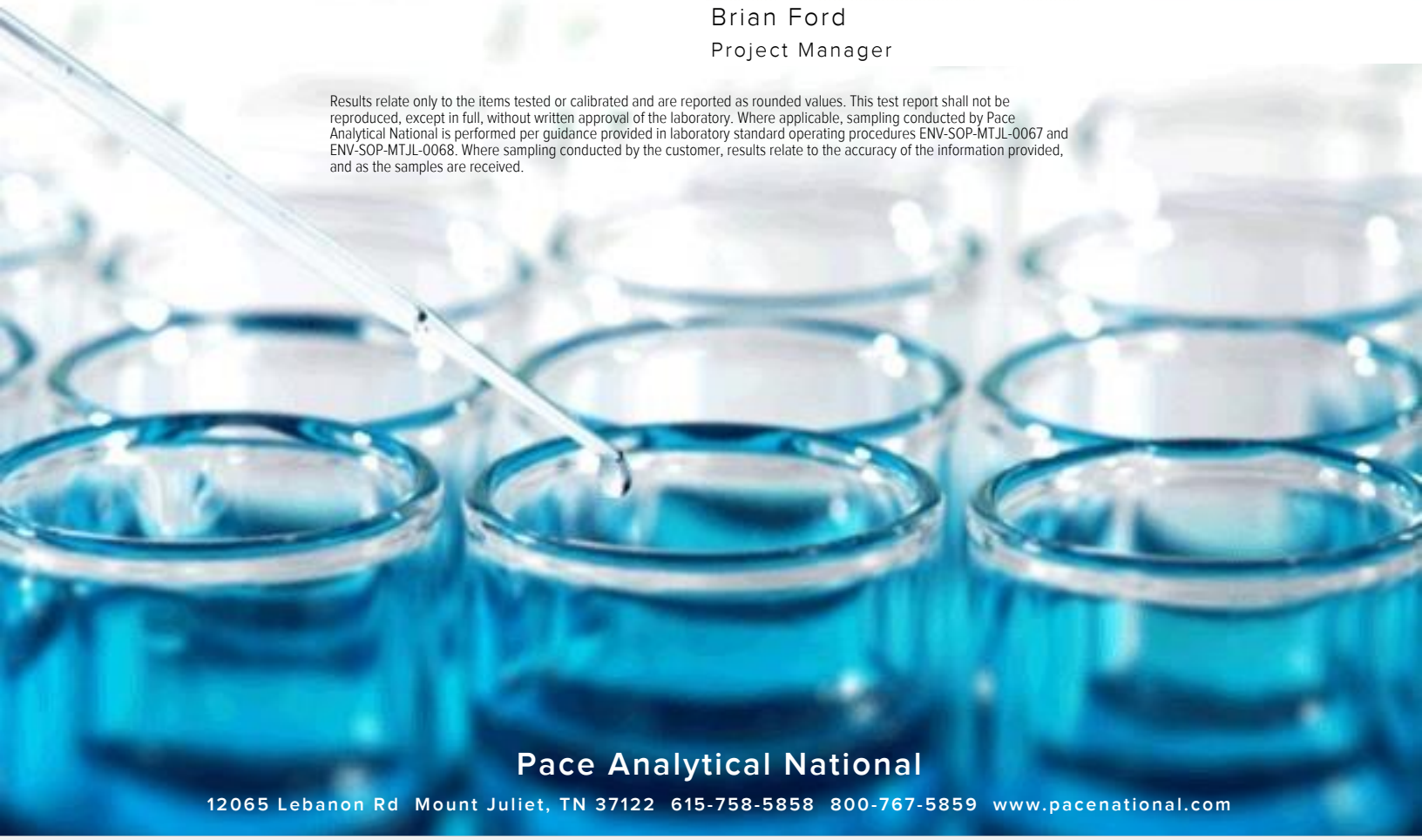
Sample Delivery Group:	L1466236
Samples Received:	03/01/2022
Project Number:	
Description:	Chevron #9-6590
Site:	232 EAST WOODLIN AVE CHELAN WA
Report To:	Russ Shropshire 11824 North Creek Parkway N Suite 101 Bothell, WA 98011

Entire Report Reviewed By:

Brian Ford

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

TABLE OF CONTENTS

UST-A1-S-8-20220225 L1466236-01 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 10:40 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826335	1	03/03/22 18:10	03/03/22 18:28	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 10:40	03/03/22 19:16	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 10:40	03/03/22 02:07	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	5	03/08/22 07:47	03/08/22 12:41	JAS	Mt. Juliet, TN

UST-A1-S-10-20220225 L1466236-02 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 10:45 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826335	1	03/03/22 18:10	03/03/22 18:28	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 10:45	03/03/22 19:38	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 10:45	03/03/22 02:26	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	5	03/08/22 07:47	03/09/22 09:36	JAS	Mt. Juliet, TN

UST-A1-S-11-20220225 L1466236-03 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 11:00 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826335	1	03/03/22 18:10	03/03/22 18:28	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 11:00	03/03/22 20:00	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	4	02/25/22 11:00	03/03/22 04:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	10	03/08/22 07:47	03/08/22 13:08	JAS	Mt. Juliet, TN

UST-A2-S-7-20220225 L1466236-04 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 13:20 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826335	1	03/03/22 18:10	03/03/22 18:28	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 13:20	03/03/22 20:21	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 13:20	03/03/22 04:43	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	1	03/08/22 07:47	03/08/22 18:19	JAS	Mt. Juliet, TN

UST-A2-S-10-20220225 L1466236-05 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 13:30 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826335	1	03/03/22 18:10	03/03/22 18:28	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 13:30	03/03/22 20:43	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 13:30	03/03/22 05:02	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	1	03/08/22 07:47	03/08/22 16:17	JAS	Mt. Juliet, TN

UST-A3-S-8-20220225 L1466236-06 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 13:40 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826337	1	03/03/22 17:08	03/03/22 17:40	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 13:40	03/03/22 21:04	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 13:40	03/03/22 05:21	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	5	03/08/22 07:47	03/08/22 12:54	JAS	Mt. Juliet, TN

UST-A3-S-9-20220225 L1466236-07 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 14:00 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826337	1	03/03/22 17:08	03/03/22 17:40	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 14:00	03/03/22 21:51	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 14:00	03/03/22 05:40	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	1	03/08/22 07:47	03/08/22 15:50	JAS	Mt. Juliet, TN

UST-A4-S-5.5-20220225 L1466236-08 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 14:20 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826337	1	03/03/22 17:08	03/03/22 17:40	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 14:20	03/03/22 22:13	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 14:20	03/03/22 05:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	5	03/08/22 07:47	03/08/22 12:27	JAS	Mt. Juliet, TN

UST-A4-S-7.5-20220225 L1466236-09 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 14:30 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826337	1	03/03/22 17:08	03/03/22 17:40	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1826526	25	02/25/22 14:30	03/03/22 22:34	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	1	02/25/22 14:30	03/03/22 06:17	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	1	03/08/22 07:47	03/09/22 09:49	JAS	Mt. Juliet, TN

UST-A5-S-5-20220225 L1466236-10 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 15:20 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826337	1	03/03/22 17:08	03/03/22 17:40	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1828090	2000	02/25/22 15:20	03/07/22 00:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	8	02/25/22 15:20	03/03/22 09:22	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1828325	200	02/25/22 15:20	03/07/22 23:19	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	100	03/08/22 07:47	03/08/22 13:48	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	200	03/08/22 07:47	03/08/22 20:07	JAS	Mt. Juliet, TN

UST-A5-S-7.5-20220225 L1466236-11 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 15:45 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826337	1	03/03/22 17:08	03/03/22 17:40	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1828149	2500	02/25/22 15:45	03/07/22 02:07	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	20	02/25/22 15:45	03/03/22 09:40	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	100	03/08/22 07:47	03/08/22 19:54	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	20	03/08/22 07:47	03/08/22 13:35	JAS	Mt. Juliet, TN

UST-A5-S-8.5-20220225 L1466236-12 Solid

Collected by: Tom Dube | Collected date/time: 02/25/22 15:50 | Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1826337	1	03/03/22 17:08	03/03/22 17:40	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1828149	1000	02/25/22 15:50	03/07/22 01:44	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826311	20	02/25/22 15:50	03/03/22 09:59	BMB	Mt. Juliet, TN

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

SAMPLE SUMMARY

UST-A5-S-8.5-20220225 L1466236-12 Solid

Collected by: Tom Dube
Collected date/time: 02/25/22 15:50
Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	100	03/08/22 07:47	03/08/22 19:40	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1828546	20	03/08/22 07:47	03/08/22 13:21	JAS	Mt. Juliet, TN

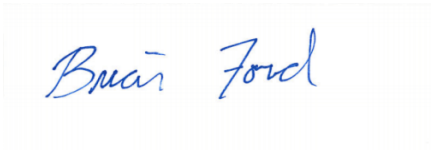
TB-1-20220225 L1466236-13 GW

Collected by: Tom Dube
Collected date/time: 02/25/22 10:00
Received date/time: 03/01/22 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1825776	1	03/01/22 23:11	03/01/22 23:11	CAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1826483	1	03/02/22 23:29	03/02/22 23:29	GLN	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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.2		1	03/03/2022 18:28	WG1826335

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.59	J	1.15	3.39	25	03/03/2022 19:16	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*03/03/2022 19:16*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000633	0.00136	1	03/03/2022 02:07	WG1826311
Toluene	U		0.00176	0.00678	1	03/03/2022 02:07	WG1826311
Ethylbenzene	U		0.000999	0.00339	1	03/03/2022 02:07	WG1826311
Total Xylenes	U		0.00119	0.00881	1	03/03/2022 02:07	WG1826311
(S) Toluene-d8	*104*			*75.0-131*		*03/03/2022 02:07*	WG1826311
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*03/03/2022 02:07*	WG1826311
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*		*03/03/2022 02:07*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1290		7.81	23.5	5	03/08/2022 12:41	WG1828546
Residual Range Organics (RRO)	210		19.5	58.7	5	03/08/2022 12:41	WG1828546
(S) o-Terphenyl	*85.1*			*18.0-148*		*03/08/2022 12:41*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.3		1	03/03/2022 18:28	WG1826335

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.917	2.70	25	03/03/2022 19:38	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*		*03/03/2022 19:38*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000505	0.00108	1	03/03/2022 02:26	WG1826311
Toluene	U		0.00141	0.00541	1	03/03/2022 02:26	WG1826311
Ethylbenzene	U		0.000797	0.00270	1	03/03/2022 02:26	WG1826311
Total Xylenes	U		0.000951	0.00703	1	03/03/2022 02:26	WG1826311
(S) Toluene-d8	*99.0*			*75.0-131*		*03/03/2022 02:26*	WG1826311
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*03/03/2022 02:26*	WG1826311
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*03/03/2022 02:26*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1190		6.91	20.8	5	03/09/2022 09:36	WG1828546
Residual Range Organics (RRO)	164		17.2	51.9	5	03/09/2022 09:36	WG1828546
(S) o-Terphenyl	*97.8*			*18.0-148*		*03/09/2022 09:36*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	03/03/2022 18:28	WG1826335

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.933	2.75	25	03/03/2022 20:00	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*03/03/2022 20:00*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00206	0.00440	4	03/03/2022 04:24	WG1826311
Toluene	0.00645	J	0.00572	0.0220	4	03/03/2022 04:24	WG1826311
Ethylbenzene	U		0.00325	0.0110	4	03/03/2022 04:24	WG1826311
Total Xylenes	0.00603	J	0.00387	0.0286	4	03/03/2022 04:24	WG1826311
(S) Toluene-d8	*106*			*75.0-131*		*03/03/2022 04:24*	WG1826311
(S) 4-Bromofluorobenzene	*99.9*			*67.0-138*		*03/03/2022 04:24*	WG1826311
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/03/2022 04:24*	WG1826311

Sample Narrative:

L1466236-03 WG1826311: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	2440		13.9	41.9	10	03/08/2022 13:08	WG1828546
Residual Range Organics (RRO)	212		34.9	105	10	03/08/2022 13:08	WG1828546
(S) o-Terphenyl	*145*			*18.0-148*		*03/08/2022 13:08*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.1		1	03/03/2022 18:28	WG1826335

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.978	2.88	25	03/03/2022 20:21	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*		*03/03/2022 20:21*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000539	0.00115	1	03/03/2022 04:43	WG1826311
Toluene	U		0.00150	0.00577	1	03/03/2022 04:43	WG1826311
Ethylbenzene	U		0.000850	0.00288	1	03/03/2022 04:43	WG1826311
Total Xylenes	U		0.00102	0.00750	1	03/03/2022 04:43	WG1826311
(S) Toluene-d8	*105*			*75.0-131*		*03/03/2022 04:43*	WG1826311
(S) 4-Bromofluorobenzene	*97.1*			*67.0-138*		*03/03/2022 04:43*	WG1826311
(S) 1,2-Dichloroethane-d4	*99.8*			*70.0-130*		*03/03/2022 04:43*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	46.3		1.43	4.30	1	03/08/2022 18:19	WG1828546
Residual Range Organics (RRO)	71.9		3.58	10.7	1	03/08/2022 18:19	WG1828546
(S) o-Terphenyl	*74.2*			*18.0-148*		*03/08/2022 18:19*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.3		1	03/03/2022 18:28	WG1826335

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.953	2.81	25	03/03/2022 20:43	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*03/03/2022 20:43*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000525	0.00112	1	03/03/2022 05:02	WG1826311
Toluene	U		0.00146	0.00562	1	03/03/2022 05:02	WG1826311
Ethylbenzene	U		0.000829	0.00281	1	03/03/2022 05:02	WG1826311
Total Xylenes	U		0.000989	0.00731	1	03/03/2022 05:02	WG1826311
(S) Toluene-d8	*105*			*75.0-131*		*03/03/2022 05:02*	WG1826311
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*03/03/2022 05:02*	WG1826311
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*03/03/2022 05:02*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	205		1.41	4.24	1	03/08/2022 16:17	WG1828546
Residual Range Organics (RRO)	158		3.53	10.6	1	03/08/2022 16:17	WG1828546
(S) o-Terphenyl	*61.9*			*18.0-148*		*03/08/2022 16:17*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	03/03/2022 17:40	WG1826337

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.16	3.41	25	03/03/2022 21:04	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*		*03/03/2022 21:04*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.00111	J	0.000637	0.00136	1	03/03/2022 05:21	WG1826311
Toluene	0.00318	J	0.00177	0.00682	1	03/03/2022 05:21	WG1826311
Ethylbenzene	U		0.00101	0.00341	1	03/03/2022 05:21	WG1826311
Total Xylenes	0.00763	J	0.00120	0.00887	1	03/03/2022 05:21	WG1826311
(S) Toluene-d8	*106*			*75.0-131*		*03/03/2022 05:21*	WG1826311
(S) 4-Bromofluorobenzene	*97.0*			*67.0-138*		*03/03/2022 05:21*	WG1826311
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*03/03/2022 05:21*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	216		7.72	23.2	5	03/08/2022 12:54	WG1828546
Residual Range Organics (RRO)	144		19.3	58.1	5	03/08/2022 12:54	WG1828546
(S) o-Terphenyl	*68.2*			*18.0-148*		*03/08/2022 12:54*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.8		1	03/03/2022 17:40	WG1826337

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.907	2.67	25	03/03/2022 21:51	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*03/03/2022 21:51*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000500	0.00107	1	03/03/2022 05:40	WG1826311
Toluene	U		0.00139	0.00535	1	03/03/2022 05:40	WG1826311
Ethylbenzene	U		0.000788	0.00267	1	03/03/2022 05:40	WG1826311
Total Xylenes	U		0.000941	0.00695	1	03/03/2022 05:40	WG1826311
(S) Toluene-d8	*108*			*75.0-131*		*03/03/2022 05:40*	WG1826311
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*03/03/2022 05:40*	WG1826311
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*		*03/03/2022 05:40*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	83.4		1.37	4.13	1	03/08/2022 15:50	WG1828546
Residual Range Organics (RRO)	59.5		3.44	10.3	1	03/08/2022 15:50	WG1828546
(S) o-Terphenyl	*60.4*			*18.0-148*		*03/08/2022 15:50*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.9		1	03/03/2022 17:40	WG1826337

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.32	3.90	25	03/03/2022 22:13	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*		*03/03/2022 22:13*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000729	0.00156	1	03/03/2022 05:59	WG1826311
Toluene	U		0.00203	0.00781	1	03/03/2022 05:59	WG1826311
Ethylbenzene	U		0.00115	0.00390	1	03/03/2022 05:59	WG1826311
Total Xylenes	U		0.00137	0.0102	1	03/03/2022 05:59	WG1826311
(S) Toluene-d8	*106*			*75.0-131*		*03/03/2022 05:59*	WG1826311
(S) 4-Bromofluorobenzene	*97.5*			*67.0-138*		*03/03/2022 05:59*	WG1826311
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*03/03/2022 05:59*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	17.3	J	8.32	25.0	5	03/08/2022 12:27	WG1828546
Residual Range Organics (RRO)	80.0		20.8	62.6	5	03/08/2022 12:27	WG1828546
(S) o-Terphenyl	*76.2*			*18.0-148*		*03/08/2022 12:27*	WG1828546

Sample Narrative:

L1466236-08 WG1828546: Cannot run at lower dilution due to viscosity of extract

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.2		1	03/03/2022 17:40	WG1826337

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.917	2.70	25	03/03/2022 22:34	WG1826526
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*03/03/2022 22:34*	WG1826526

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000505	0.00108	1	03/03/2022 06:17	WG1826311
Toluene	U		0.00141	0.00541	1	03/03/2022 06:17	WG1826311
Ethylbenzene	U		0.000797	0.00270	1	03/03/2022 06:17	WG1826311
Total Xylenes	U		0.000951	0.00703	1	03/03/2022 06:17	WG1826311
(S) Toluene-d8	*108*			*75.0-131*		*03/03/2022 06:17*	WG1826311
(S) 4-Bromofluorobenzene	*95.2*			*67.0-138*		*03/03/2022 06:17*	WG1826311
(S) 1,2-Dichloroethane-d4	*98.1*			*70.0-130*		*03/03/2022 06:17*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	7.92		1.38	4.16	1	03/09/2022 09:49	WG1828546
Residual Range Organics (RRO)	33.7		3.46	10.4	1	03/09/2022 09:49	WG1828546
(S) o-Terphenyl	*99.5*			*18.0-148*		*03/09/2022 09:49*	WG1828546

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.8		1	03/03/2022 17:40	WG1826337

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	7420		94.1	277	2000	03/07/2022 00:57	WG1828090
(S) a,a,a-Trifluorotoluene(FID)	*94.8*			*77.0-120*		*03/07/2022 00:57*	WG1828090

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	1.13		0.00519	0.0111	8	03/03/2022 09:22	WG1826311
Toluene	16.2		0.361	1.39	200	03/07/2022 23:19	WG1828325
Ethylbenzene	12.7	V	0.00818	0.0277	8	03/03/2022 09:22	WG1826311
Total Xylenes	80.5		0.244	1.80	200	03/07/2022 23:19	WG1828325
(S) Toluene-d8	*116*			*75.0-131*		*03/03/2022 09:22*	WG1826311
(S) Toluene-d8	*99.6*			*75.0-131*		*03/07/2022 23:19*	WG1828325
(S) 4-Bromofluorobenzene	*198*	J1		*67.0-138*		*03/03/2022 09:22*	WG1826311
(S) 4-Bromofluorobenzene	*120*			*67.0-138*		*03/07/2022 23:19*	WG1828325
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*03/03/2022 09:22*	WG1826311
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*03/07/2022 23:19*	WG1828325

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	51800		314	944	200	03/08/2022 20:07	WG1828546
Residual Range Organics (RRO)	U		393	1180	100	03/08/2022 13:48	WG1828546
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*03/08/2022 13:48*	WG1828546
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*03/08/2022 20:07*	WG1828546

Sample Narrative:

L1466236-10 WG1828546: Cannot run at lower dilution due to viscosity of extract

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	03/03/2022 17:40	WG1826337

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	4940		92.3	272	2500	03/07/2022 02:07	WG1828149
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*77.0-120*		*03/07/2022 02:07*	WG1828149

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.500		0.0102	0.0218	20	03/03/2022 09:40	WG1826311
Toluene	11.3		0.0283	0.109	20	03/03/2022 09:40	WG1826311
Ethylbenzene	6.14		0.0160	0.0544	20	03/03/2022 09:40	WG1826311
Total Xylenes	52.7		0.0192	0.141	20	03/03/2022 09:40	WG1826311
(S) Toluene-d8	*105*			*75.0-131*		*03/03/2022 09:40*	WG1826311
(S) 4-Bromofluorobenzene	*153*	J1		*67.0-138*		*03/03/2022 09:40*	WG1826311
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/03/2022 09:40*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	11400		139	417	100	03/08/2022 19:54	WG1828546
Residual Range Organics (RRO)	U		69.4	208	20	03/08/2022 13:35	WG1828546
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*03/08/2022 19:54*	WG1828546
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*03/08/2022 13:35*	WG1828546

Sample Narrative:

L1466236-11 WG1828546: Cannot run at lower dilution due to viscosity of extract

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.6		1	03/03/2022 17:40	WG1826337

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	3190		37.8	112	1000	03/07/2022 01:44	WG1828149
(S) a,a,a-Trifluorotoluene(FID)	*94.5*			*77.0-120*		*03/07/2022 01:44*	WG1828149

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.207		0.0104	0.0223	20	03/03/2022 09:59	WG1826311
Toluene	5.27		0.0290	0.112	20	03/03/2022 09:59	WG1826311
Ethylbenzene	3.14		0.0164	0.0558	20	03/03/2022 09:59	WG1826311
Total Xylenes	26.9		0.0197	0.145	20	03/03/2022 09:59	WG1826311
(S) Toluene-d8	*102*			*75.0-131*		*03/03/2022 09:59*	WG1826311
(S) 4-Bromofluorobenzene	*135*			*67.0-138*		*03/03/2022 09:59*	WG1826311
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*03/03/2022 09:59*	WG1826311

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	9550		141	423	100	03/08/2022 19:40	WG1828546
Residual Range Organics (RRO)	U		70.4	211	20	03/08/2022 13:21	WG1828546
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*03/08/2022 13:21*	WG1828546
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*03/08/2022 19:40*	WG1828546

Sample Narrative:

L1466236-12 WG1828546: Cannot run at lower dilution due to viscosity of extract

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	47.7	B J	31.6	100	1	03/01/2022 23:11	WG1825776
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*78.0-120*		*03/01/2022 23:11*	WG1825776

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	03/02/2022 23:29	WG1826483
Toluene	U		0.278	1.00	1	03/02/2022 23:29	WG1826483
Ethylbenzene	U		0.137	1.00	1	03/02/2022 23:29	WG1826483
Total Xylenes	U		0.174	3.00	1	03/02/2022 23:29	WG1826483
(S) Toluene-d8	*111*			*80.0-120*		*03/02/2022 23:29*	WG1826483
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*03/02/2022 23:29*	WG1826483
(S) 1,2-Dichloroethane-d4	*127*			*70.0-130*		*03/02/2022 23:29*	WG1826483

Method Blank (MB)

(MB) R3766368-1 03/03/22 18:28

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00300			

L1466236-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1466236-01 03/03/22 18:28 • (DUP) R3766368-3 03/03/22 18:28

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	85.2	86.3	1	1.27		10

Laboratory Control Sample (LCS)

(LCS) R3766368-2 03/03/22 18:28

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.9	99.8	85.0-115	

Method Blank (MB)

(MB) R3766365-1 03/03/22 17:40

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00700			

L1466236-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1466236-11 03/03/22 17:40 • (DUP) R3766365-3 03/03/22 17:40

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.0	95.1	1	0.951		10

Laboratory Control Sample (LCS)

(LCS) R3766365-2 03/03/22 17:40

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3765972-3 03/01/22 22:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	73.5	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*78.0-120*

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

(LCS) R3765972-1 03/01/22 19:54 • (LCSD) R3765972-2 03/01/22 20:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	6090	5110	111	92.9	70.0-124			17.5	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*103*	*78.0-120*				

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

Method Blank (MB)

(MB) R3766791-2 03/03/22 16:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3766791-1 03/03/22 14:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C6 - C12	5.50	5.57	101	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*77.0-120*	

Method Blank (MB)

(MB) R3766997-2 03/06/22 20:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*98.5*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3766997-1 03/06/22 18:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C6 - C12	5.50	4.38	79.6	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*77.0-120*	

Method Blank (MB)

(MB) R3766998-2 03/06/22 20:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*98.5*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3766998-1 03/06/22 18:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C6 - C12	5.50	4.38	79.6	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*77.0-120*	

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

Method Blank (MB)

(MB) R3765842-3 03/03/22 01:48

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*96.1*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*

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

(LCS) R3765842-1 03/03/22 00:33 • (LCSD) R3765842-2 03/03/22 00:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.115	0.128	92.0	102	70.0-123			10.7	20
Toluene	0.125	0.102	0.115	81.6	92.0	75.0-121			12.0	20
Ethylbenzene	0.125	0.107	0.112	85.6	89.6	74.0-126			4.57	20
Xylenes, Total	0.375	0.326	0.334	86.9	89.1	72.0-127			2.42	20
(S) Toluene-d8				*95.8*	*101*	*75.0-131*				
(S) 4-Bromofluorobenzene				*105*	*97.9*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*110*	*107*	*70.0-130*				

L1466236-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1466236-10 03/03/22 09:22 • (MS) R3765842-4 03/03/22 10:18 • (MSD) R3765842-5 03/03/22 10:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.21	1.13	2.28	1.71	94.9	47.8	8	10.0-149			28.6	37
Toluene	1.21	25.4	25.9	22.8	46.0	0.000	8	10.0-156	E	V	13.1	38
Ethylbenzene	1.21	12.7	12.2	10.4	0.000	0.000	8	10.0-160	V	V	15.3	38
Xylenes, Total	3.62	109	103	88.2	0.000	0.000	8	10.0-160	V	V	15.1	38
(S) Toluene-d8					*119*	*107*		*75.0-131*				
(S) 4-Bromofluorobenzene					*187*	*156*		*67.0-138*	J1	J1		
(S) 1,2-Dichloroethane-d4					*105*	*104*		*70.0-130*				

Method Blank (MB)

(MB) R3767289-2 03/07/22 19:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*106*			*75.0-131*
(S) 4-Bromofluorobenzene	*95.7*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3767289-1 03/07/22 18:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Toluene	0.125	0.102	81.6	75.0-121	
Xylenes, Total	0.375	0.313	83.5	72.0-127	
(S) Toluene-d8			*96.8*	*75.0-131*	
(S) 4-Bromofluorobenzene			*107*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*112*	*70.0-130*	

Method Blank (MB)

(MB) R3765973-2 03/02/22 22:56

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3765973-1 03/02/22 22:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	4.85	97.0	70.0-123	
Toluene	5.00	4.88	97.6	79.0-120	
Ethylbenzene	5.00	5.02	100	79.0-123	
Xylenes, Total	15.0	15.3	102	79.0-123	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*107*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*124*	*70.0-130*	

Method Blank (MB)

(MB) R3767541-1 03/08/22 11:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*78.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3767541-2 03/08/22 12:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	43.3	86.6	50.0-150	
(S) o-Terphenyl			*106*	*18.0-148*	

L1466236-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1466236-05 03/08/22 16:17 • (MS) R3767541-3 03/08/22 16:31 • (MSD) R3767541-4 03/08/22 16:44

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	51.8	205	275	258	135	102	1	50.0-150			6.37	20
(S) o-Terphenyl					*76.0*	*75.4*		*18.0-148*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Leidos Inc.- Bothell, WA
18939 120th Avenue NE
Suite 112
Bothell. WA 98011

Billing Information:
Accounts Payable
18939 120th Avenue NE
Suite 112
Bothell, WA 98011

Report to: **Russ Shropshire**

Email To: **russell.s.shropshire@leidos.com**

Project Description: **Chevron #9-6590**

City/State Collected: Chelan, WA

Please Circle: (PT) MT CT ET

Phone: **425-482-3323**

Client Project #

Lab Project # **LEIDOSBWA-CHELAN**

Collected by (print): Tom Dubé

Site/Facility ID # **232 EAST WOODIN AVE**

P.O. # **P010246476**

Collected by (signature): Thomas Dubé

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	BTEX 8260D 40mlAmb/MeOH10ml/Syr	NWTPHDX no silica 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
UST-A1-S-8-20220225	Grab	SS	8	2-25-2022	1040	2		X	X	X		-01
UST-A1-S-10-20220225	Grab	SS	10	2-25-2022	1045	2		X	X	X		-02
UST-A1-S-11-20220225	Grab	SS	11	2-25-2022	1100	2		X	X	X		-03
UST-A2-S-7-20220225	Grab	SS	7	2-25-2022	1320	2		X	X	X		-04
UST-A2-S-10-20220225	Grab	SS	10	2-25-2022	1330	2		X	X	X		-05
UST-A3-S-8-20220225	Grab	SS	8	2-25-2022	1340	2		X	X	X		-06
UST-A3-S-9-20220225	Grab	SS	9	2-25-2022	1400	2		X	X	X		-07
UST-A4-S-5.5-20220225	Grab	SS	5.5	2-25-2022	1420	2		X	X	X		-08
UST-A4-S-7.5-20220225	Grab	SS	7.5	2-25-2022	1430	2		X	X	X		-09
UST-A5-S-5-20220225	Grab	SS	5	2-25-2022	1520	2		X	X	X		-10

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # L1462236

Table #

Acctnum: **LEIDOSBWA**
Template: **T203802**
Prelogin: **P905130**
PM: **110 - Brian Ford**
PB: CR 2.14.22

Shipped Via:

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 552859518077

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Thomas Dubé	2-28-2022	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 1.9+0=1.9 °C Bottles Received: 24 COC SP 3

Date: 3/1/22 Time: 1000

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Leidos Inc.- Bothell, WA

18939 120th Avenue NE
Suite 112
Bothell. WA 98011

Billing Information:
Accounts Payable
18939 120th Avenue NE
Suite 112
Bothell, WA 98011

Report to: **Russ Shropshire**

Email To: **russell.s.shropshire@leidos.com**

Project Description: **Chevron #9-6590**

City/State Collected: Chelan, WA

Please Circle: (PT) MT CT ET

Phone: **425-482-3323**

Client Project #

Lab Project # **LEIDOSBWA-CHELAN**

Collected by (print): Tom Dubé

Site/Facility ID # **232 EAST WOODIN AVE**

P.O. # **P010246476**

Collected by (signature): Thomas Dubé

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Chain of Custody Page 2 of 2

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SDG # L1462360

Table #

Acctnum: **LEIDOSBWA**
Template: **T203802**
Prelogin: **P905130**
PM: **110 - Brian Ford**
PB: CP 2-14-22

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	BTEX 8260D 40mlAmb/MeOH10ml/Syr	NWTPHDX no silica 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
UST-A5-S-7.5-20220225	Grab	SS	7.5	2-25-2022	1545	2		X	X	X		-11
UST-A5-S-8.5-20220225	Grab	SS	8.5	2-25-2022	1550	2		X	X	X		-12
TB-1-20220225	Grab	~~SS~~ OT	—	2-25-2022	1000	3		X		X	Trip Blank	-13

Thomas Dubé 2-28-2022

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

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx X Courier ___

Tracking # 5528 5951 8077

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Thomas Dubé	2-28-2022	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.9 °C Bottles Received: 3

If preservation required by Login: Date/Time

Date: 3/1/22 Time: 1000

Hold:

Condition: NCF / OK

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y / N
COC Signed/Accurate:		Y / N
Bottles arrive intact:		Y / N
Correct bottles used:		Y / N
Sufficient volume sent:		Y / N
If Applicable		
VOA Zero Headspace:		Y / N
Preservation Correct/Checked:		Y / N
RAD Screen <0.5 mR/hr:		Y / N

ANALYTICAL REPORT

March 31, 2022

Leidos Inc.- Bothell, WA

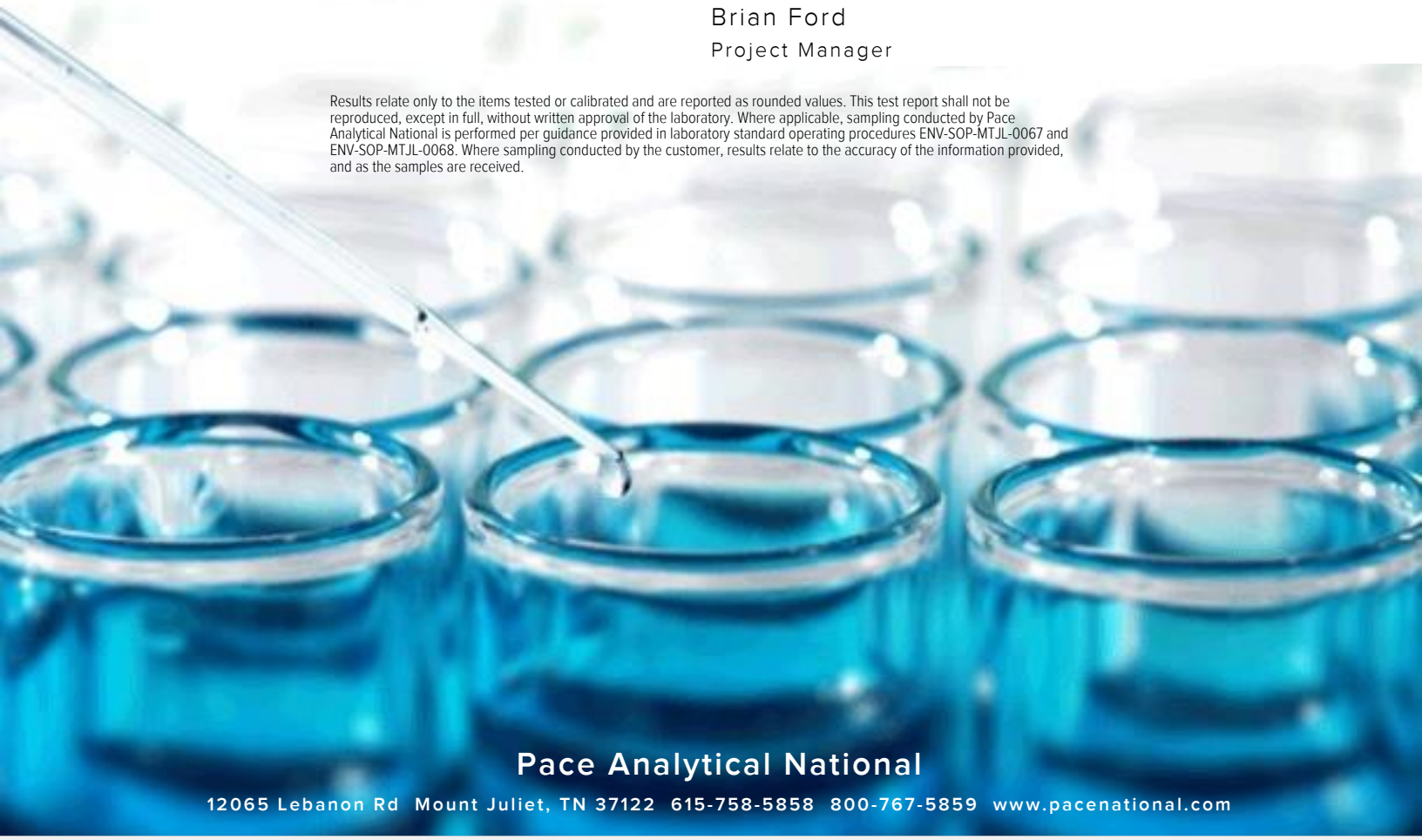
Sample Delivery Group:	L1474520
Samples Received:	03/23/2022
Project Number:	
Description:	Chevron #9-6590
Site:	232 EAST WOODLIN AVE CHELAN WA
Report To:	Russ Shropshire 11824 North Creek Parkway N Suite 101 Bothell, WA 98011

Entire Report Reviewed By:

Brian Ford

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

TABLE OF CONTENTS

125-67-S-8-220314 L1474520-01 Solid

Collected by: TD/RS | Collected date/time: 03/14/22 12:20 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837895	1	03/26/22 11:17	03/26/22 11:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/14/22 12:20	03/25/22 22:59	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838087	1	03/14/22 12:20	03/25/22 09:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1837745	1	03/25/22 19:09	03/26/22 05:25	JAS	Mt. Juliet, TN

125-73-S-3.5-220314 L1474520-02 Solid

Collected by: TD/RS | Collected date/time: 03/14/22 14:40 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837895	1	03/26/22 11:17	03/26/22 11:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/14/22 14:40	03/25/22 23:22	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838087	1	03/14/22 14:40	03/25/22 09:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1837745	1	03/25/22 19:09	03/26/22 06:57	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1837745	2	03/25/22 19:09	03/26/22 10:38	JAS	Mt. Juliet, TN

125-68-S-4-220315 L1474520-03 Solid

Collected by: TD/RS | Collected date/time: 03/15/22 08:00 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837895	1	03/26/22 11:17	03/26/22 11:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/15/22 08:00	03/25/22 23:46	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838087	1	03/15/22 08:00	03/25/22 12:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	10	03/28/22 06:18	03/29/22 04:21	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	5	03/28/22 06:18	03/29/22 17:59	TJD	Mt. Juliet, TN

131-5-S-8-220315 L1474520-04 Solid

Collected by: TD/RS | Collected date/time: 03/15/22 08:05 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837896	1	03/26/22 10:53	03/26/22 11:08	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/15/22 08:05	03/26/22 00:10	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838087	1	03/15/22 08:05	03/25/22 12:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	1	03/28/22 06:18	03/29/22 02:20	JAS	Mt. Juliet, TN

131-5-S-9-220315 L1474520-05 Solid

Collected by: TD/RS | Collected date/time: 03/15/22 11:07 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837896	1	03/26/22 10:53	03/26/22 11:08	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/15/22 11:07	03/26/22 00:34	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838087	1	03/15/22 11:07	03/25/22 12:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	1	03/28/22 06:18	03/29/22 02:47	JAS	Mt. Juliet, TN

133-25-S-14-220315 L1474520-06 Solid

Collected by: TD/RS | Collected date/time: 03/15/22 13:47 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837896	1	03/26/22 10:53	03/26/22 11:08	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/15/22 13:47	03/26/22 00:58	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838087	1	03/15/22 13:47	03/25/22 12:58	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	5	03/28/22 06:18	03/29/22 04:48	JAS	Mt. Juliet, TN

133-25-S-14-220315 L1474520-06 Solid

Collected by: TD/RS | Collected date/time: 03/15/22 13:47 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	5	03/28/22 06:18	03/29/22 17:46	TJD	Mt. Juliet, TN

135-5-S-14-220316 L1474520-07 Solid

Collected by: TD/RS | Collected date/time: 03/16/22 12:40 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837896	1	03/26/22 10:53	03/26/22 11:08	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/16/22 12:40	03/26/22 01:21	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838599	1	03/16/22 12:40	03/25/22 18:46	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	1	03/28/22 06:18	03/29/22 03:41	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	1	03/28/22 06:18	03/29/22 18:12	TJD	Mt. Juliet, TN

135-15-S-12-220316 L1474520-08 Solid

Collected by: TD/RS | Collected date/time: 03/16/22 15:45 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837896	1	03/26/22 10:53	03/26/22 11:08	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/16/22 15:45	03/26/22 01:45	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838599	1	03/16/22 15:45	03/25/22 19:05	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	1	03/28/22 06:18	03/29/22 03:54	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1839024	1	03/28/22 06:18	03/29/22 17:20	TJD	Mt. Juliet, TN

141-30-S-14-220317 L1474520-09 Solid

Collected by: TD/RS | Collected date/time: 03/17/22 14:45 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1837896	1	03/26/22 10:53	03/26/22 11:08	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838097	25	03/17/22 14:45	03/26/22 02:09	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838599	1	03/17/22 14:45	03/25/22 19:24	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1840017	1	03/30/22 08:26	03/30/22 16:39	JAS	Mt. Juliet, TN

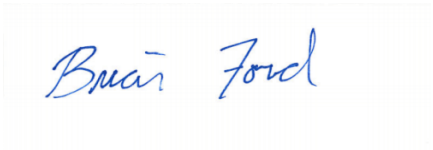
TB-1-220314 L1474520-10 GW

Collected by: TD/RS | Collected date/time: 03/14/22 12:00 | Received date/time: 03/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1838705	1	03/26/22 21:41	03/26/22 21:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1838344	1	03/25/22 12:57	03/25/22 12:57	JAH	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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	03/26/2022 11:36	WG1837895

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.934	2.75	25	03/25/2022 22:59	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*94.3*			*77.0-120*		*03/25/2022 22:59*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000514	0.00110	1	03/25/2022 09:01	WG1838087
Toluene	U		0.00143	0.00550	1	03/25/2022 09:01	WG1838087
Ethylbenzene	U		0.000811	0.00275	1	03/25/2022 09:01	WG1838087
Total Xylenes	U		0.000969	0.00716	1	03/25/2022 09:01	WG1838087
(S) Toluene-d8	*102*			*75.0-131*		*03/25/2022 09:01*	WG1838087
(S) 4-Bromofluorobenzene	*96.0*			*67.0-138*		*03/25/2022 09:01*	WG1838087
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*03/25/2022 09:01*	WG1838087

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U	J3	1.39	4.19	1	03/26/2022 05:25	WG1837745
Residual Range Organics (RRO)	U		3.49	10.5	1	03/26/2022 05:25	WG1837745
(S) o-Terphenyl	*44.8*			*18.0-148*		*03/26/2022 05:25*	WG1837745

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.8		1	03/26/2022 11:36	WG1837895

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	2.18	J	1.13	3.34	25	03/25/2022 23:22	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*77.0-120*		*03/25/2022 23:22*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000623	0.00133	1	03/25/2022 09:20	WG1838087
Toluene	0.00222	J	0.00173	0.00667	1	03/25/2022 09:20	WG1838087
Ethylbenzene	U		0.000984	0.00334	1	03/25/2022 09:20	WG1838087
Total Xylenes	0.00452	J	0.00117	0.00867	1	03/25/2022 09:20	WG1838087
(S) Toluene-d8	*102*			*75.0-131*		*03/25/2022 09:20*	WG1838087
(S) 4-Bromofluorobenzene	*97.3*			*67.0-138*		*03/25/2022 09:20*	WG1838087
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*03/25/2022 09:20*	WG1838087

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	11.8		1.53	4.61	1	03/26/2022 06:57	WG1837745
Residual Range Organics (RRO)	84.2		7.67	23.0	2	03/26/2022 10:38	WG1837745
(S) o-Terphenyl	*49.7*			*18.0-148*		*03/26/2022 06:57*	WG1837745
(S) o-Terphenyl	*47.1*			*18.0-148*		*03/26/2022 10:38*	WG1837745

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	03/26/2022 11:36	WG1837895

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	110		1.18	3.49	25	03/25/2022 23:46	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*94.9*			*77.0-120*		*03/25/2022 23:46*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000651	0.00139	1	03/25/2022 12:01	WG1838087
Toluene	0.0565		0.00181	0.00697	1	03/25/2022 12:01	WG1838087
Ethylbenzene	0.0665		0.00103	0.00349	1	03/25/2022 12:01	WG1838087
Total Xylenes	0.739		0.00123	0.00907	1	03/25/2022 12:01	WG1838087
(S) Toluene-d8	*95.4*			*75.0-131*		*03/25/2022 12:01*	WG1838087
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*03/25/2022 12:01*	WG1838087
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*03/25/2022 12:01*	WG1838087

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	768		15.5	46.5	10	03/29/2022 04:21	WG1839024
Residual Range Organics (RRO)	74.5		19.3	58.1	5	03/29/2022 17:59	WG1839024
(S) o-Terphenyl	*110*			*18.0-148*		*03/29/2022 04:21*	WG1839024
(S) o-Terphenyl	*74.9*			*18.0-148*		*03/29/2022 17:59*	WG1839024

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.5		1	03/26/2022 11:08	WG1837896

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	0.992	J	0.910	2.68	25	03/26/2022 00:10	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*77.0-120*		*03/26/2022 00:10*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000501	0.00107	1	03/25/2022 12:20	WG1838087
Toluene	U		0.00140	0.00537	1	03/25/2022 12:20	WG1838087
Ethylbenzene	U		0.000791	0.00268	1	03/25/2022 12:20	WG1838087
Total Xylenes	U		0.000945	0.00698	1	03/25/2022 12:20	WG1838087
(S) Toluene-d8	*101*			*75.0-131*		*03/25/2022 12:20*	WG1838087
(S) 4-Bromofluorobenzene	*99.9*			*67.0-138*		*03/25/2022 12:20*	WG1838087
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*03/25/2022 12:20*	WG1838087

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.38	4.14	1	03/29/2022 02:20	WG1839024
Residual Range Organics (RRO)	U		3.45	10.4	1	03/29/2022 02:20	WG1839024
(S) o-Terphenyl	*77.4*			*18.0-148*		*03/29/2022 02:20*	WG1839024

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.3		1	03/26/2022 11:08	WG1837896

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.952	2.81	25	03/26/2022 00:34	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*94.9*			*77.0-120*		*03/26/2022 00:34*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000524	0.00112	1	03/25/2022 12:39	WG1838087
Toluene	U		0.00146	0.00561	1	03/25/2022 12:39	WG1838087
Ethylbenzene	U		0.000827	0.00281	1	03/25/2022 12:39	WG1838087
Total Xylenes	U		0.000988	0.00730	1	03/25/2022 12:39	WG1838087
(S) Toluene-d8	*101*			*75.0-131*		*03/25/2022 12:39*	WG1838087
(S) 4-Bromofluorobenzene	*97.6*			*67.0-138*		*03/25/2022 12:39*	WG1838087
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*03/25/2022 12:39*	WG1838087

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.41	4.24	1	03/29/2022 02:47	WG1839024
Residual Range Organics (RRO)	U		3.53	10.6	1	03/29/2022 02:47	WG1839024
(S) o-Terphenyl	*78.7*			*18.0-148*		*03/29/2022 02:47*	WG1839024

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.0		1	03/26/2022 11:08	WG1837896

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.04	J	1.02	3.01	25	03/26/2022 00:58	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*77.0-120*		*03/26/2022 00:58*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000563	0.00121	1	03/25/2022 12:58	WG1838087
Toluene	U		0.00157	0.00603	1	03/25/2022 12:58	WG1838087
Ethylbenzene	U		0.000888	0.00301	1	03/25/2022 12:58	WG1838087
Total Xylenes	U		0.00106	0.00783	1	03/25/2022 12:58	WG1838087
(S) Toluene-d8	*101*			*75.0-131*		*03/25/2022 12:58*	WG1838087
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*03/25/2022 12:58*	WG1838087
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*03/25/2022 12:58*	WG1838087

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	8.45	J	7.31	22.0	5	03/29/2022 04:48	WG1839024
Residual Range Organics (RRO)	75.6		18.2	55.0	5	03/29/2022 17:46	WG1839024
(S) o-Terphenyl	*81.2*			*18.0-148*		*03/29/2022 17:46*	WG1839024
(S) o-Terphenyl	*74.0*			*18.0-148*		*03/29/2022 04:48*	WG1839024

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.2		1	03/26/2022 11:08	WG1837896

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.07	3.16	25	03/26/2022 01:21	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*77.0-120*		*03/26/2022 01:21*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000590	0.00126	1	03/25/2022 18:46	WG1838599
Toluene	U		0.00164	0.00632	1	03/25/2022 18:46	WG1838599
Ethylbenzene	U		0.000931	0.00316	1	03/25/2022 18:46	WG1838599
Total Xylenes	U		0.00111	0.00821	1	03/25/2022 18:46	WG1838599
(S) Toluene-d8	*118*			*75.0-131*		*03/25/2022 18:46*	WG1838599
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*		*03/25/2022 18:46*	WG1838599
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*		*03/25/2022 18:46*	WG1838599

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	35.1		1.49	4.49	1	03/29/2022 03:41	WG1839024
Residual Range Organics (RRO)	34.0		3.73	11.2	1	03/29/2022 18:12	WG1839024
(S) o-Terphenyl	*67.1*			*18.0-148*		*03/29/2022 18:12*	WG1839024
(S) o-Terphenyl	*61.5*			*18.0-148*		*03/29/2022 03:41*	WG1839024

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.2		1	03/26/2022 11:08	WG1837896

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	5.00		1.13	3.34	25	03/26/2022 01:45	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*94.5*			*77.0-120*		*03/26/2022 01:45*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000624	0.00134	1	03/25/2022 19:05	WG1838599
Toluene	U		0.00174	0.00668	1	03/25/2022 19:05	WG1838599
Ethylbenzene	0.00103	J	0.000985	0.00334	1	03/25/2022 19:05	WG1838599
Total Xylenes	0.00667	J	0.00118	0.00869	1	03/25/2022 19:05	WG1838599
(S) Toluene-d8	*118*			*75.0-131*		*03/25/2022 19:05*	WG1838599
(S) 4-Bromofluorobenzene	*93.8*			*67.0-138*		*03/25/2022 19:05*	WG1838599
(S) 1,2-Dichloroethane-d4	*94.2*			*70.0-130*		*03/25/2022 19:05*	WG1838599

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	29.5		1.54	4.64	1	03/29/2022 03:54	WG1839024
Residual Range Organics (RRO)	50.2		3.86	11.6	1	03/29/2022 17:20	WG1839024
(S) o-Terphenyl	*55.5*			*18.0-148*		*03/29/2022 17:20*	WG1839024
(S) o-Terphenyl	*54.9*			*18.0-148*		*03/29/2022 03:54*	WG1839024

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.9		1	03/26/2022 11:08	WG1837896

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.903	2.66	25	03/26/2022 02:09	WG1838097
(S) a,a,a-Trifluorotoluene(FID)	*93.6*			*77.0-120*		*03/26/2022 02:09*	WG1838097

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000497	0.00107	1	03/25/2022 19:24	WG1838599
Toluene	U		0.00138	0.00533	1	03/25/2022 19:24	WG1838599
Ethylbenzene	U		0.000785	0.00266	1	03/25/2022 19:24	WG1838599
Total Xylenes	U		0.000937	0.00692	1	03/25/2022 19:24	WG1838599
(S) Toluene-d8	*116*			*75.0-131*		*03/25/2022 19:24*	WG1838599
(S) 4-Bromofluorobenzene	*94.6*			*67.0-138*		*03/25/2022 19:24*	WG1838599
(S) 1,2-Dichloroethane-d4	*94.5*			*70.0-130*		*03/25/2022 19:24*	WG1838599

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.37	4.13	1	03/30/2022 16:39	WG1840017
Residual Range Organics (RRO)	U		3.44	10.3	1	03/30/2022 16:39	WG1840017
(S) o-Terphenyl	*79.7*			*18.0-148*		*03/30/2022 16:39*	WG1840017

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/26/2022 21:41	WG1838705
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*03/26/2022 21:41*	WG1838705

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/25/2022 12:57	WG1838344
Toluene	U		0.278	1.00	1	03/25/2022 12:57	WG1838344
Ethylbenzene	U		0.137	1.00	1	03/25/2022 12:57	WG1838344
Total Xylenes	U		0.174	3.00	1	03/25/2022 12:57	WG1838344
(S) Toluene-d8	*97.7*			*80.0-120*		*03/25/2022 12:57*	WG1838344
(S) 4-Bromofluorobenzene	*91.9*			*77.0-126*		*03/25/2022 12:57*	WG1838344
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*		*03/25/2022 12:57*	WG1838344

Method Blank (MB)

(MB) R3774562-1 03/26/22 11:36

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

L1474520-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1474520-01 03/26/22 11:36 • (DUP) R3774562-3 03/26/22 11:36

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.4	95.7	1	0.298		10

Laboratory Control Sample (LCS)

(LCS) R3774562-2 03/26/22 11:36

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3774558-1 03/26/22 11:08

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

L1474531-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1474531-01 03/26/22 11:08 • (DUP) R3774558-3 03/26/22 11:08

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	72.2	72.6	1	0.557		10

Laboratory Control Sample (LCS)

(LCS) R3774558-2 03/26/22 11:08

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3774303-3 03/25/22 17:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*94.2*			*77.0-120*

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

(LCS) R3774303-1 03/25/22 15:28 • (LCSD) R3774303-2 03/25/22 17:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	5.97	5.18	109	94.2	71.0-124			14.2	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*99.6*	*77.0-120*				

Method Blank (MB)

(MB) R3774524-2 03/26/22 17:26

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3774524-1 03/26/22 16:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5650	103	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*95.8*	*78.0-120*	

Method Blank (MB)

(MB) R3774392-3 03/25/22 08:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*101*			*75.0-131*
(S) 4-Bromofluorobenzene	*93.9*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

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

(LCS) R3774392-1 03/25/22 07:28 • (LCSD) R3774392-2 03/25/22 07:46

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.135	0.128	108	102	70.0-123			5.32	20
Toluene	0.125	0.125	0.122	100	97.6	75.0-121			2.43	20
Ethylbenzene	0.125	0.118	0.113	94.4	90.4	74.0-126			4.33	20
Xylenes, Total	0.375	0.354	0.344	94.4	91.7	72.0-127			2.87	20
(S) Toluene-d8				*99.9*	*101*	*75.0-131*				
(S) 4-Bromofluorobenzene				*95.9*	*96.3*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*107*	*110*	*70.0-130*				

L1474490-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1474490-01 03/25/22 09:49 • (MS) R3774392-4 03/25/22 15:47 • (MSD) R3774392-5 03/25/22 16:07

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.133	0.642	0.798	0.791	118	112	1	10.0-149			0.903	37
Toluene	0.133	0.237	0.372	0.365	102	96.2	1	10.0-156			1.95	38
Ethylbenzene	0.133	0.0856	0.224	0.218	104	99.9	1	10.0-160			2.60	38
Xylenes, Total	0.398	0.767	1.22	1.21	114	112	1	10.0-160			0.945	38
(S) Toluene-d8					*98.3*	*97.5*		*75.0-131*				
(S) 4-Bromofluorobenzene					*97.7*	*97.4*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*107*	*106*		*70.0-130*				

Method Blank (MB)

(MB) R3775398-2 03/25/22 18:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*116*			*75.0-131*
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*93.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3775398-1 03/25/22 17:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.109	87.2	70.0-123	
Toluene	0.125	0.137	110	75.0-121	
Ethylbenzene	0.125	0.148	118	74.0-126	
Xylenes, Total	0.375	0.433	115	72.0-127	
(S) Toluene-d8			*115*	*75.0-131*	
(S) 4-Bromofluorobenzene			*102*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*96.8*	*70.0-130*	

L1474718-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1474718-05 03/25/22 23:31 • (MS) R3775398-3 03/25/22 23:49 • (MSD) R3775398-4 03/26/22 00:08

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	2.76	U	1.59	2.23	57.4	80.5	20	10.0-149			33.6	37
Toluene	2.76	U	1.98	2.82	71.6	102	20	10.0-156			35.2	38
Ethylbenzene	2.76	2.68	4.23	5.09	56.3	87.4	20	10.0-160			18.4	38
Xylenes, Total	8.29	2.24	7.97	10.4	69.1	98.1	20	10.0-160			26.2	38
(S) Toluene-d8					*116*	*118*		*75.0-131*				
(S) 4-Bromofluorobenzene					*94.8*	*96.0*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*96.2*	*95.1*		*70.0-130*				

Sample Narrative:

OS: Nontarget compounds are too large to run at a lower dilution.

Method Blank (MB)

(MB) R3774400-2 03/25/22 12:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*97.8*			*80.0-120*
(S) 4-Bromofluorobenzene	*92.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3774400-1 03/25/22 10:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	4.59	91.8	70.0-123	
Toluene	5.00	4.55	91.0	79.0-120	
Ethylbenzene	5.00	4.21	84.2	79.0-123	
Xylenes, Total	15.0	12.4	82.7	79.0-123	
(S) Toluene-d8			*97.0*	*80.0-120*	
(S) 4-Bromofluorobenzene			*97.2*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*109*	*70.0-130*	

L1474522-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1474522-03 03/25/22 18:28 • (MS) R3774400-3 03/25/22 20:19 • (MSD) R3774400-4 03/25/22 20:41

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	U	5.30	5.91	106	118	1	17.0-158			10.9	27
Toluene	5.00	U	5.33	5.83	107	117	1	26.0-154			8.96	28
Ethylbenzene	5.00	U	5.10	5.79	102	116	1	30.0-155			12.7	27
Xylenes, Total	15.0	U	16.2	17.7	108	118	1	29.0-154			8.85	28
(S) Toluene-d8					*93.4*	*95.6*		*80.0-120*				
(S) 4-Bromofluorobenzene					*93.8*	*98.7*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*115*	*114*		*70.0-130*				

Method Blank (MB)

(MB) R3774287-1 03/26/22 04:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*43.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3774287-2 03/26/22 05:12

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	36.3	72.6	50.0-150	
(S) o-Terphenyl			*84.8*	*18.0-148*	

L1474520-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1474520-01 03/26/22 05:25 • (MS) R3774287-3 03/26/22 05:38 • (MSD) R3774287-4 03/26/22 05:51

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	52.4	U	27.3	33.3	52.0	63.6	1	50.0-150		J3	20.1	20
(S) o-Terphenyl					*58.7*	*69.7*		*18.0-148*				

Method Blank (MB)

(MB) R3774899-1 03/28/22 20:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*75.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3774899-2 03/28/22 21:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	42.8	85.6	50.0-150	
(S) o-Terphenyl			*97.1*	*18.0-148*	

L1473439-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473439-21 03/29/22 00:59 • (MS) R3774899-3 03/29/22 01:13 • (MSD) R3774899-4 03/29/22 01:26

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	68.1	U	44.0	45.2	64.6	67.2	1	50.0-150			2.75	20
(S) o-Terphenyl					*73.7*	*78.6*		*18.0-148*				

Method Blank (MB)

(MB) R3775800-1 03/30/22 13:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*72.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3775800-2 03/30/22 13:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	36.9	73.8	50.0-150	
(S) o-Terphenyl			*86.9*	*18.0-148*	

L1474452-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1474452-01 03/30/22 13:42 • (MS) R3775800-3 03/30/22 13:55 • (MSD) R3775800-4 03/30/22 14:09

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	48.8	U	48.4	39.1	99.2	80.1	1	50.0-150		J3	21.3	20
(S) o-Terphenyl					*65.1*	*73.5*		*18.0-148*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Leidos Inc.- Bothell, WA

11824 North Creek Parkway N
Suite 101
Bothell. WA 98011

Billing Information:
Accounts Payable
11824 North Creek Parkway N
Suite 101
Bothell, WA 98011

Pres Chk

Report to:
Russ Shropshire

Email To: **russell.s.shropshire@leidos.com**

Project Description:
Chevron #9-6590

City/State Collected: Chelan, WA

Please Circle: PT MT CT ET

Phone: **425-482-3323**

Client Project #

Lab Project #
LEIDOSBWA-CHELAN

Collected by (print):
T. Dube
R Shropshire

Site/Facility ID #
232 EAST WOODLIN AVE

P.O. #
P010246476

Collected by (signature):
Immediately Packed on Ice N ___ Y X

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

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # 1974520
H122

Acctnum: **LEIDOSBWA**
Template: **T203802**
Prelogin: **P909882**
PM: **110 - Brian Ford**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8260D 40ml/amb/MeOH10ml/Syr	NWTPHDX no silica 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
125-67-S-8-220314	Grab	SS	8	3-14-22	12:20	2	X	X	X		-01
125-73-S-3.5-220314	Grab	SS	3.5	3-14-22	14:40	2	X	X	X		-02
125-68-S-4-220315	Grab	SS	4	3-15-22	08:00	2	X	X	X		-03
131-5-S-8-220315	Grab	SS	8	3-15-22	08:05	2	X	X	X		-04
131-5-S-9-220315	Grab	SS	9	3-15-22	11:07	2	X	X	X		-05
133-25-S-14-220315	Grab	SS	14	3-15-22	13:47	2	X	X	X		-06
135-5-S-14-220316	Grab	SS	14	3-16-22	12:40	2	X	X	X		-07
135-15-S-12-220316	Grab	SS	12	3-16-22	15:45	2	X	X	X		-08
141-30-S-14-220317	Grab	SS	14	3-17-22	14:45	2	X	X	X		-09
TB-1-220314	Grab	~~SS~~ OT	—	3-14-22	12:00	3	X		X		-10

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 5433 8382 1160

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	3-21-22			3	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.7 °C Bottles Received: 1.9+0=1.9 18	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Patricia Smith	Date: 3/23/22 Time: 0900	Hold: Condition: NCF / OK

ANALYTICAL REPORT

April 06, 2022

Leidos Inc.- Bothell, WA

Sample Delivery Group:	L1476890
Samples Received:	03/30/2022
Project Number:	
Description:	Chevron #9-6590
Site:	232 EAST WOODIN AVE CHELAN WA
Report To:	Russ Shropshire 11824 North Creek Parkway N Suite 101 Bothell, WA 98011

Entire Report Reviewed By:

Brian Ford
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.

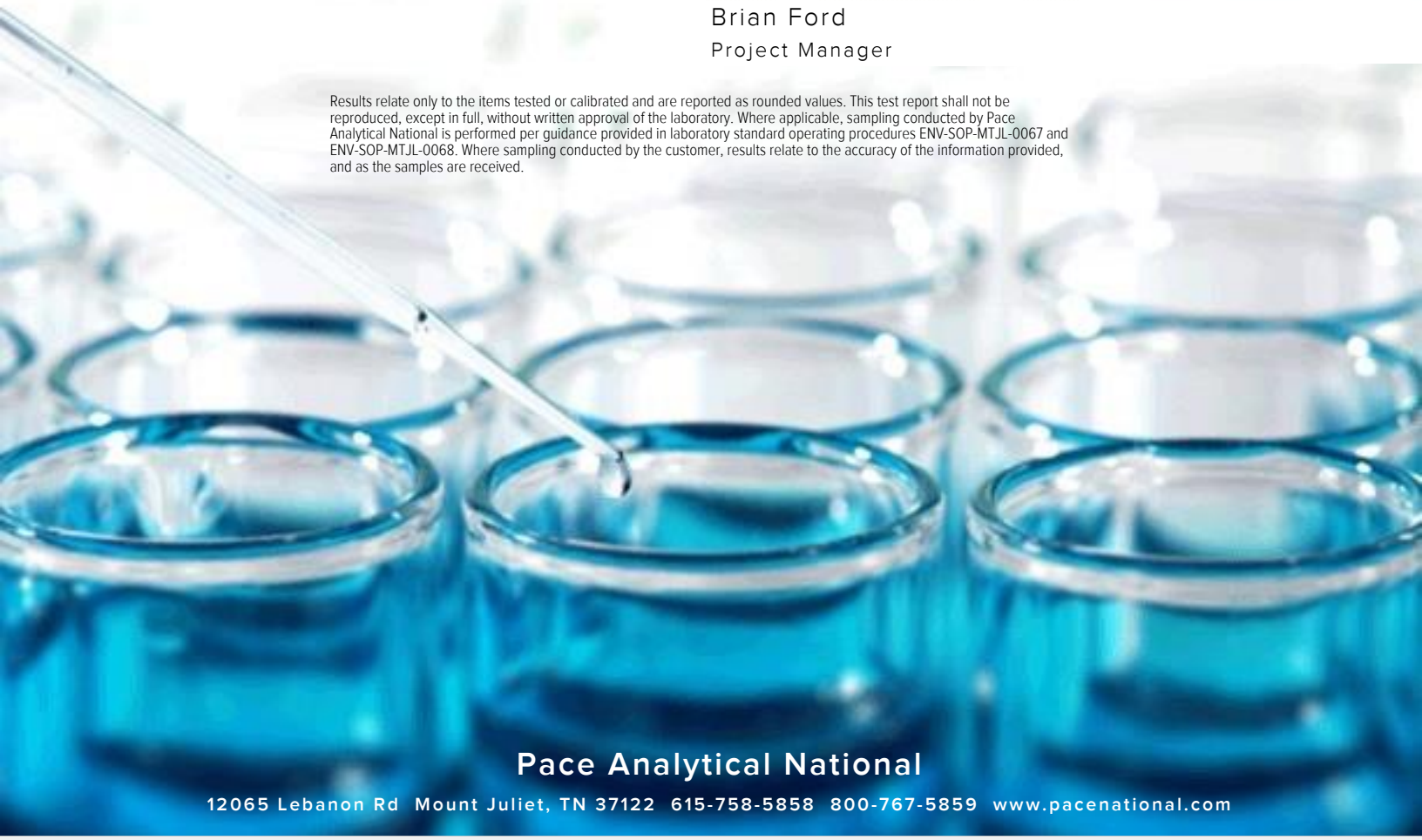


TABLE OF CONTENTS

SAMPLE SUMMARY

125-40-S-6-220324 L1476890-01 Solid

Collected by: Tom Dube
Collected date/time: 03/24/22 08:15
Received date/time: 03/30/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1841135	1	04/01/22 09:21	04/01/22 09:27	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1843687	25	03/24/22 08:15	04/06/22 03:11	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1843320	1	03/24/22 08:15	04/05/22 12:00	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1842507	1	04/04/22 04:32	04/04/22 17:34	JAS	Mt. Juliet, TN

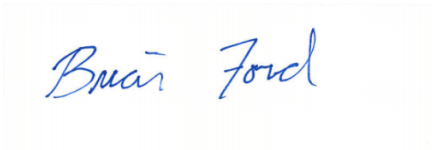
TB-1-220324 L1476890-02 GW

Collected by: Tom Dube
Collected date/time: 03/24/22 08:00
Received date/time: 03/30/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1841979	1	04/02/22 01:48	04/02/22 01:48	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1842354	1	04/03/22 08:03	04/03/22 08:03	JHH	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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.1		1	04/01/2022 09:27	WG1841135

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.06	3.13	25	04/06/2022 03:11	WG1843687
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*77.0-120*		*04/06/2022 03:11*	WG1843687

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000586	0.00125	1	04/05/2022 12:00	WG1843320
Toluene	U		0.00163	0.00627	1	04/05/2022 12:00	WG1843320
Ethylbenzene	U		0.000924	0.00313	1	04/05/2022 12:00	WG1843320
Total Xylenes	0.00222	J	0.00110	0.00815	1	04/05/2022 12:00	WG1843320
(S) Toluene-d8	*116*			*75.0-131*		*04/05/2022 12:00*	WG1843320
(S) 4-Bromofluorobenzene	*95.4*			*67.0-138*		*04/05/2022 12:00*	WG1843320
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*04/05/2022 12:00*	WG1843320

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	3.68	J	1.49	4.49	1	04/04/2022 17:34	WG1842507
Residual Range Organics (RRO)	16.7		3.74	11.2	1	04/04/2022 17:34	WG1842507
(S) o-Terphenyl	*74.1*			*18.0-148*		*04/04/2022 17:34*	WG1842507

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	04/02/2022 01:48	WG1841979
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*78.0-120*		*04/02/2022 01:48*	WG1841979

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	04/03/2022 08:03	WG1842354
Toluene	U		0.278	1.00	1	04/03/2022 08:03	WG1842354
Ethylbenzene	U		0.137	1.00	1	04/03/2022 08:03	WG1842354
Total Xylenes	U		0.174	3.00	1	04/03/2022 08:03	WG1842354
(S) Toluene-d8	*105*			*80.0-120*		*04/03/2022 08:03*	WG1842354
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*		*04/03/2022 08:03*	WG1842354
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*04/03/2022 08:03*	WG1842354

Method Blank (MB)

(MB) R3776824-1 04/01/22 09:27

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00400			

L1476824-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1476824-13 04/01/22 09:27 • (DUP) R3776824-3 04/01/22 09:27

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.2	94.3	1	0.150		10

Laboratory Control Sample (LCS)

(LCS) R3776824-2 04/01/22 09:27

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.7	99.4	85.0-115	

Method Blank (MB)

(MB) R3777061-2 04/02/22 00:46

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3777061-1 04/01/22 23:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5130	93.3	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*113*	*78.0-120*	

Method Blank (MB)

(MB) R3778080-2 04/05/22 23:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3778080-3 04/06/22 05:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C6 - C12	5.50	5.50	100	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*97.3*	*77.0-120*	

L1476890-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1476890-01 04/06/22 03:11 • (MS) R3778080-4 04/06/22 09:47 • (MSD) R3778080-5 04/06/22 10:11

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	161	U	140	155	87.5	96.9	25	50.0-150			10.2	27
(S) a,a,a-Trifluorotoluene(FID)					*102*	*102*		*77.0-120*				

Method Blank (MB)

(MB) R3777345-3 04/03/22 07:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

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

(LCS) R3777345-1 04/03/22 06:29 • (LCSD) R3777345-2 04/03/22 06:48

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	4.72	4.44	94.4	88.8	70.0-123			6.11	20
Toluene	5.00	4.49	4.34	89.8	86.8	79.0-120			3.40	20
Ethylbenzene	5.00	4.64	4.49	92.8	89.8	79.0-123			3.29	20
Xylenes, Total	15.0	13.8	13.5	92.0	90.0	79.0-123			2.20	20
(S) Toluene-d8				*109*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*94.1*	*97.2*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*104*	*104*	*70.0-130*				

Method Blank (MB)

(MB) R3777841-3 04/05/22 11:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*117*			*75.0-131*
(S) 4-Bromofluorobenzene	*93.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*

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

(LCS) R3777841-1 04/05/22 10:09 • (LCSD) R3777841-2 04/05/22 10:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.105	0.113	84.0	90.4	70.0-123			7.34	20
Toluene	0.125	0.102	0.104	81.6	83.2	75.0-121			1.94	20
Ethylbenzene	0.125	0.106	0.115	84.8	92.0	74.0-126			8.14	20
Xylenes, Total	0.375	0.319	0.334	85.1	89.1	72.0-127			4.59	20
(S) Toluene-d8				*103*	*98.7*	*75.0-131*				
(S) 4-Bromofluorobenzene				*98.4*	*104*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R3777620-1 04/04/22 16:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*84.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3777620-2 04/04/22 16:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	41.1	82.2	50.0-150	
(S) o-Terphenyl			*77.9*	*18.0-148*	

L1475527-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1475527-10 04/04/22 20:20 • (MS) R3777620-3 04/04/22 20:33 • (MSD) R3777620-4 04/04/22 20:46

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	51.6	4.33	47.9	48.8	84.4	86.2	1	50.0-150			1.92	20
(S) o-Terphenyl					*62.9*	*65.0*		*18.0-148*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Leidos Inc.- Bothell, WA

11824 North Creek Parkway N
Suite 101
Bothell. WA 98011

Billing Information:
Accounts Payable
11824 North Creek Parkway N
Suite 101
Bothell, WA 98011

Pres Chk

Report to:
Russ Shropshire

Email To: **russell.s.shropshire@leidos.com**

Project Description:
Chevron #9-6590

City/State Collected: Chelan, WA

Please Circle: (PT) MT CT ET

Phone: **425-482-3323**

Client Project #

Lab Project #
LEIDOSBWA-CHELAN

Collected by (print):
Tom Dubé

Site/Facility ID #
232 EAST WOODLIN AVE

P.O. #
P010246476

Collected by (signature):
Thomas Dubé

Immediately Packed on Ice N ___ Y X

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

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8260D 40mlAmb/MeOH10ml/Syr	NWTPHDX no silica 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr							Remarks	Sample # (lab only)
125-40-S-6-220324	Grab	SS	6	3-24-2022	0815	2	X	X	X								-01
TB-1-220324	Grab	~~SS~~ OT	—	3-24-2022	0800	2	X		X							Trip Blank	-02
		SS															
		SS															
		SS															
		SS															
		SS															
		SS															
		SS	3-29-2022														
		SS															

Thomas Dubé

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx X Courier _____

Tracking # 552595918066

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Thomas Dubé	3-29-2022	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Patricia Smith

Trip Blank Received: (Yes) / No
HCl / MeoH
TBR

Temp: 4.7 °C Bottles Received: 2

Date: 3/30/22 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y / N
COC Signed/Accurate:		Y / N
Bottles arrive intact:		Y / N
Correct bottles used:		Y / N
Sufficient volume sent:		Y / N
If Applicable		
VOA Zero Headspace:		Y / N
Preservation Correct/Checked:		Y / N
RAD Screen <0.5 mR/hr:		Y / N

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # 1476890
G092

Acctnum: **LEIDOSBWA**
Template: **T203802**
Prelogin: **P909882**
PM: **110 - Brian Ford**
PB:

Shipped Via:

ANALYTICAL REPORT

May 09, 2022

Leidos Inc.- Bothell, WA

Sample Delivery Group:	L1488946
Samples Received:	05/03/2022
Project Number:	
Description:	Chevron #9-6590
Site:	232 EAST WOODIN AVE CHELAN WA
Report To:	Russ Shropshire 11824 North Creek Parkway N Suite 101 Bothell, WA 98011

Entire Report Reviewed By:

Brian Ford
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.

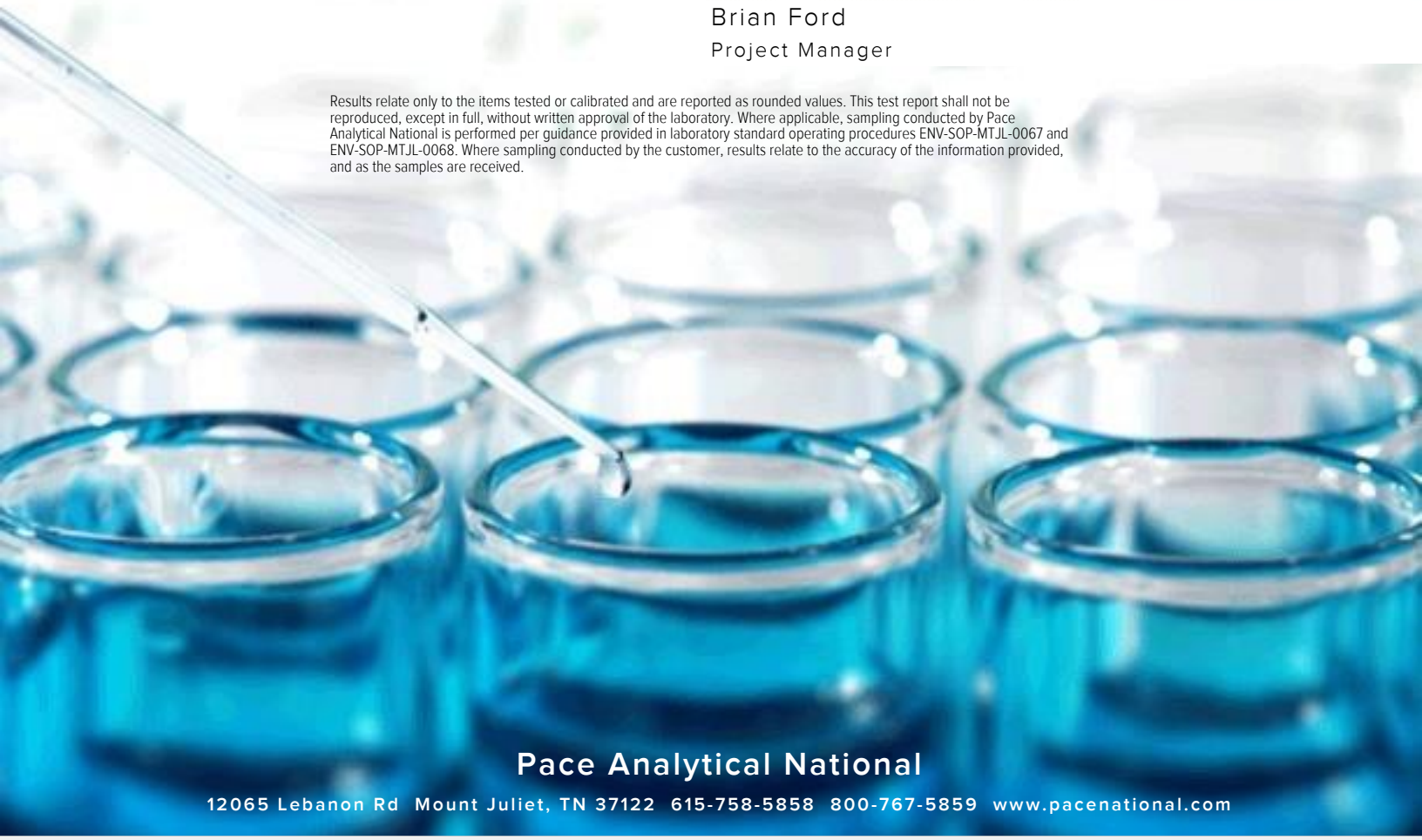


TABLE OF CONTENTS

SAMPLE SUMMARY

221-UST-W-220428 L1488946-01 GW

Collected by: RS/CW | Collected date/time: 04/28/22 14:00 | Received date/time: 05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG1857166	1	05/05/22 02:41	05/05/22 17:35	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1859813	10	05/07/22 03:26	05/07/22 03:26	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860643	10	05/09/22 12:45	05/09/22 12:45	JHH	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1859053	1	05/05/22 07:54	05/06/22 02:44	HLA	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1860138	20	05/07/22 18:23	05/09/22 11:42	AEG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1860138	200	05/07/22 18:23	05/09/22 12:35	AEG	Mt. Juliet, TN

221-90-S-10-220427 L1488946-02 Solid

Collected by: RS/CW | Collected date/time: 04/27/22 15:45 | Received date/time: 05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1859075	1	05/05/22 08:28	05/05/22 08:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1858935	25	04/27/22 15:45	05/05/22 07:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1859664	1	04/27/22 15:45	05/06/22 05:29	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1859354	1	05/06/22 04:43	05/06/22 16:00	JAS	Mt. Juliet, TN

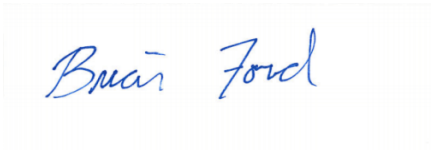
TB-01-220502 L1488946-03 GW

Collected by: RS/CW | Collected date/time: 05/02/22 11:00 | Received date/time: 05/03/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1858941	1	05/05/22 08:30	05/05/22 08:30	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860413	1	05/07/22 16:41	05/07/22 16:41	ACG	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.



Brian Ford
Project Manager

Sample Delivery Group (SDG) Narrative

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1488946-03	TB-01-220502	8260D

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	18.5		2.99	6.00	1	05/05/2022 17:35	WG1857166

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	18900		316	1000	10	05/07/2022 03:26	WG1859813
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*05/07/2022 03:26*	WG1859813

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.160	0.400	10	05/09/2022 12:45	WG1860643
1,2-Dichloroethane	U		0.190	1.00	10	05/09/2022 12:45	WG1860643
Ethylbenzene	U		0.212	1.00	10	05/09/2022 12:45	WG1860643
Tetrachloroethene	U		0.280	1.00	10	05/09/2022 12:45	WG1860643
Toluene	U		0.500	2.00	10	05/09/2022 12:45	WG1860643
Trichloroethene	U		0.160	0.400	10	05/09/2022 12:45	WG1860643
Vinyl chloride	U		0.273	1.00	10	05/09/2022 12:45	WG1860643
Xylenes, Total	86.8		1.91	2.60	10	05/09/2022 12:45	WG1860643
(S) Toluene-d8	*103*			*75.0-131*		*05/09/2022 12:45*	WG1860643
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*05/09/2022 12:45*	WG1860643
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*05/09/2022 12:45*	WG1860643

Sample Narrative:

L1488946-01 WG1860643: Non-target compounds too high to run at a lower dilution.

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00536	0.0200	1	05/06/2022 02:44	WG1859053

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	377000		13300	40000	200	05/09/2022 12:35	WG1860138
Residual Range Organics (RRO)	36600		1670	5000	20	05/09/2022 11:42	WG1860138
(S) o-Terphenyl	*0.000*	J7		*52.0-156*		*05/09/2022 11:42*	WG1860138
(S) o-Terphenyl	*0.000*	J7		*52.0-156*		*05/09/2022 12:35*	WG1860138

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	05/05/2022 08:36	WG1859075

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	20.7		0.937	2.76	25	05/05/2022 07:03	WG1858935
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*05/05/2022 07:03*	WG1858935

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000516	0.00110	1	05/06/2022 05:29	WG1859664
Toluene	U		0.00144	0.00552	1	05/06/2022 05:29	WG1859664
Ethylbenzene	U		0.000814	0.00276	1	05/06/2022 05:29	WG1859664
Total Xylenes	0.0120		0.000972	0.00718	1	05/06/2022 05:29	WG1859664
(S) Toluene-d8	*114*			*75.0-131*		*05/06/2022 05:29*	WG1859664
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*05/06/2022 05:29*	WG1859664
(S) 1,2-Dichloroethane-d4	*87.5*			*70.0-130*		*05/06/2022 05:29*	WG1859664

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	199		1.40	4.20	1	05/06/2022 16:00	WG1859354
Residual Range Organics (RRO)	6.32	J	3.49	10.5	1	05/06/2022 16:00	WG1859354
(S) o-Terphenyl	*94.6*			*18.0-148*		*05/06/2022 16:00*	WG1859354

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	68.4	B J	31.6	100	1	05/05/2022 08:30	WG1858941
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*78.0-120*		*05/05/2022 08:30*	WG1858941

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	05/07/2022 16:41	WG1860413
Toluene	U		0.278	1.00	1	05/07/2022 16:41	WG1860413
Ethylbenzene	U		0.137	1.00	1	05/07/2022 16:41	WG1860413
Total Xylenes	U		0.174	3.00	1	05/07/2022 16:41	WG1860413
1,2-Dichloroethane	U		0.0819	1.00	1	05/07/2022 16:41	WG1860413
(S) Toluene-d8	*102*			*80.0-120*		*05/07/2022 16:41*	WG1860413
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*05/07/2022 16:41*	WG1860413
(S) 1,2-Dichloroethane-d4	*90.4*			*70.0-130*		*05/07/2022 16:41*	WG1860413

Method Blank (MB)

(MB) R3788824-1 05/05/22 08:36

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1488933-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1488933-21 05/05/22 08:36 • (DUP) R3788824-3 05/05/22 08:36

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.0	87.5	1	0.479		10

Laboratory Control Sample (LCS)

(LCS) R3788824-2 05/05/22 08:36

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3788722-1 05/05/22 16:13

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead	U		2.99	6.00

Laboratory Control Sample (LCS)

(LCS) R3788722-2 05/05/22 16:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	1000	943	94.3	80.0-120	

L1487484-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1487484-01 05/05/22 16:19 • (MS) R3788722-4 05/05/22 16:24 • (MSD) R3788722-5 05/05/22 16:27

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	1000	U	945	957	94.5	95.7	1	75.0-125			1.19	20

Method Blank (MB)

(MB) R3788631-4 05/05/22 03:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*

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

(LCS) R3788631-1 05/05/22 02:30 • (LCSD) R3788631-3 05/05/22 03:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	6.48	5.86	118	107	71.0-124			10.0	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*99.9*	*77.0-120*				

L1488412-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1488412-02 05/05/22 08:42 • (MS) R3788631-7 05/05/22 13:00 • (MSD) R3788631-8 05/05/22 13:22

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	128	62.0	186	190	96.9	100	25	50.0-150			2.13	27
(S) a,a,a-Trifluorotoluene(FID)					*100*	*101*		*77.0-120*				

Method Blank (MB)

(MB) R3788805-2 05/05/22 06:24

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	78.4	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3788805-1 05/05/22 05:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5330	96.9	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*78.0-120*	

Method Blank (MB)

(MB) R3789367-2 05/06/22 23:32

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	32.7	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3789367-1 05/06/22 22:16

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	5300	96.4	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*79.1*	*78.0-120*	

Method Blank (MB)

(MB) R3789352-3 05/06/22 05:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*109*			*75.0-131*
(S) 4-Bromofluorobenzene	*101*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*

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

(LCS) R3789352-1 05/06/22 03:55 • (LCSD) R3789352-2 05/06/22 04:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.110	0.115	88.0	92.0	70.0-123			4.44	20
Toluene	0.125	0.126	0.132	101	106	75.0-121			4.65	20
Ethylbenzene	0.125	0.124	0.129	99.2	103	74.0-126			3.95	20
Xylenes, Total	0.375	0.361	0.386	96.3	103	72.0-127			6.69	20
(S) Toluene-d8				*109*	*109*	*75.0-131*				
(S) 4-Bromofluorobenzene				*103*	*102*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*95.1*	*94.9*	*70.0-130*				

L1488369-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1488369-16 05/06/22 11:37 • (MS) R3789352-4 05/06/22 13:10 • (MSD) R3789352-5 05/06/22 13:29

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.00	0.239	1.49	1.29	125	105	8	10.0-149			14.4	37
Toluene	1.00	8.08	15.2	14.4	712	632	8	10.0-156	V	V	5.41	38
Ethylbenzene	1.00	3.87	6.94	6.56	307	269	8	10.0-160	J5	J5	5.63	38
Xylenes, Total	3.00	26.7	43.2	41.4	550	490	8	10.0-160	V	V	4.26	38
(S) Toluene-d8					*112*	*108*		*75.0-131*				
(S) 4-Bromofluorobenzene					*104*	*102*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*95.1*	*93.4*		*70.0-130*				

Method Blank (MB)

(MB) R3789379-3 05/07/22 15:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
1,2-Dichloroethane	U		0.0819	1.00
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*106*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*

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

(LCS) R3789379-1 05/07/22 14:21 • (LCSD) R3789379-2 05/07/22 14:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	5.61	5.54	112	111	70.0-123			1.26	20
Toluene	5.00	5.62	5.68	112	114	79.0-120			1.06	20
Ethylbenzene	5.00	5.49	5.52	110	110	79.0-123			0.545	20
Xylenes, Total	15.0	16.9	16.3	113	109	79.0-123			3.61	20
1,2-Dichloroethane	5.00	5.29	4.96	106	99.2	70.0-128			6.44	20
(S) Toluene-d8				*99.8*	*99.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*105*	*97.9*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*94.6*	*95.2*	*70.0-130*				

Method Blank (MB)

(MB) R3789648-2 05/09/22 11:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0160	0.0400
1,2-Dichloroethane	U		0.0190	0.100
Ethylbenzene	U		0.0212	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
Trichloroethene	U		0.0160	0.0400
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3789648-1 05/09/22 10:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	4.81	96.2	70.0-123	
1,2-Dichloroethane	5.00	5.55	111	65.0-131	
Ethylbenzene	5.00	5.99	120	74.0-126	
Tetrachloroethene	5.00	6.64	133	70.0-136	
Toluene	5.00	5.24	105	75.0-121	
Trichloroethene	5.00	5.62	112	76.0-126	
Vinyl chloride	5.00	4.84	96.8	63.0-134	
Xylenes, Total	15.0	17.3	115	72.0-127	
(S) Toluene-d8			*99.0*	*75.0-131*	
(S) 4-Bromofluorobenzene			*98.2*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*112*	*70.0-130*	

Method Blank (MB)

(MB) R3788859-1 05/05/22 22:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylene Dibromide	U		0.00536	0.0200

L1488461-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1488461-13 05/05/22 23:18 • (DUP) R3788859-3 05/05/22 23:06

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	U	U	1	0.000		20

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

(LCS) R3788859-4 05/06/22 00:42 • (LCSD) R3788859-5 05/06/22 03:08

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.250	0.337	0.334	135	134	60.0-140			0.894	20

L1488464-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1488464-02 05/05/22 22:54 • (MS) R3788859-2 05/05/22 22:42

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.103	U	0.112	109	1.03	64.0-159	

Method Blank (MB)

(MB) R3789163-1 05/06/22 15:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*73.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3789163-3 05/06/22 15:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	39.4	78.8	50.0-150	
(S) o-Terphenyl			*90.8*	*18.0-148*	

L1488204-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1488204-03 05/06/22 17:05 • (MS) R3789163-4 05/06/22 18:00 • (MSD) R3789163-2 05/06/22 18:13

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	57.9	102	142	2360	68.2	3910	5	50.0-150		E J3 J5	177	20
(S) o-Terphenyl					*51.2*	*0.000*		*18.0-148*		J2		

Method Blank (MB)

(MB) R3789495-1 05/08/22 16:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*91.5*			*52.0-156*

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

(LCS) R3789495-2 05/08/22 17:08 • (LCSD) R3789495-3 05/08/22 17:34

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1680	1690	112	113	50.0-150			0.593	20
(S) o-Terphenyl				*127*	*120*	*52.0-156*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
Leidos Inc.- Bothell, WA

11824 North Creek Parkway N
Suite 101
Bothell. WA 98011

Billing Information:
Accounts Payable
11824 North Creek Parkway N
Suite 101
Bothell, WA 98011

Pres Chk

Report to:
Russ Shropshire

Email To: **russell.s.shropshire@leidos.com**

Project Description:
Chevron #9-6590

City/State Collected: Chelan, WA

Please Circle: (PT) MT CT ET

Phone: **425-482-3323**

Client Project #

Lab Project #
LEIDOSBWA-CHELAN

Collected by (print):
R. Shropshire C. Wildt

Site/Facility ID # WOODIN
232 EAST WOODLIN AVE

P.O. #
P010246476

Collected by (signature):
Chris Wildt

Immediately Packed on Ice N ___ Y X

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

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX/EDC 8260D 40mlAmb-HCl	EDB 8011 40mlClr-NaThio	NWTPHDX no silica 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	PCE/TCE/VC 8260D 40mlAmb-HCl	Total Pb 6010 250mlHDPE-HNO3	BTEX 8260D	NWTPH G-X	NWTPH DX	Remarks	Sample # (lab only)
221-UST-W-220428	Grab	GW	NA	4-28-22	1400	12	X	X	X	X	X	X					-01
221-90-S-10-220427	Grab	~~Soil~~ GW	10	4-27-22	1545	2							X	X	X		-02
TB-01-220502	Grab	~~OT~~ GW	NA	5-2-22	1100	1	X			X							-03
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															

5/2/2022

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # L1488946
D185

Acctnum: **LEIDOSBWA**
Template: **T208001**
Prelogin: **P919769**
PM: **110 - Brian Ford**
PB:

Shipped Via:

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

Remarks:
221-90-S-10-220427
RSS 5/2/22

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 5300 4298 5945

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes No HCl MeoH TBR	If preservation required by Login: Date/Time
	5/2/22	1200		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.5+.0=1.5 °C Bottles Received: 15	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) D.Ramsey	Date: 5-3-22 Time: 930	Hold: Condition: NCF / OK

ANALYTICAL REPORT

May 17, 2022

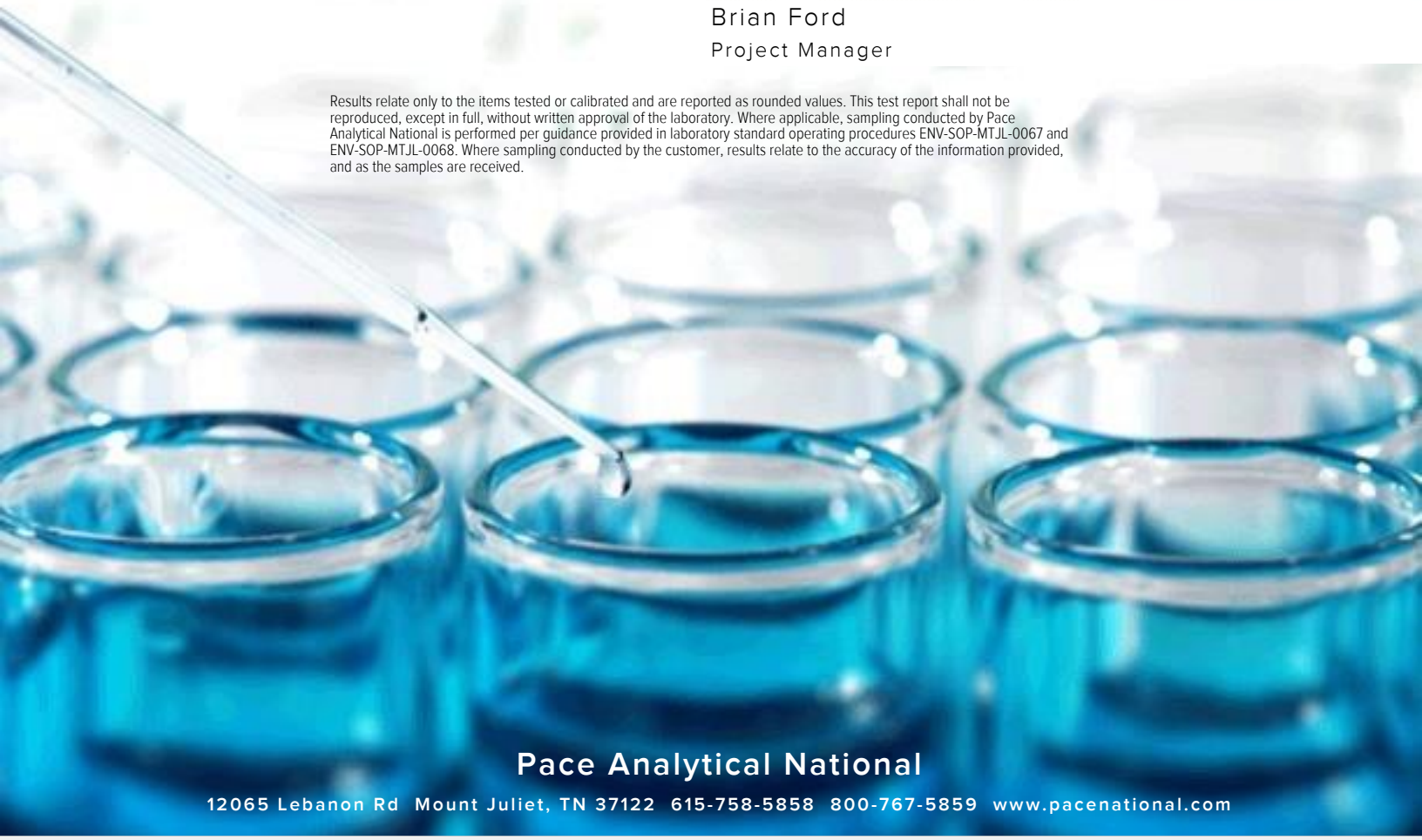
Leidos Inc.- Bothell, WA

Sample Delivery Group:	L1490232
Samples Received:	05/06/2022
Project Number:	
Description:	Chevron #9-6590
Site:	232 EAST WOODIN AVE WOODIN WA
Report To:	Russ Shropshire 11824 North Creek Parkway N Suite 101 Bothell, WA 98011

Entire Report Reviewed By:

Brian Ford
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

TABLE OF CONTENTS

SAMPLE SUMMARY

ES-CL-MA-10-S-220502 L1490232-01 Solid

Collected by: R. Shropshire | Collected date/time: 05/02/22 15:15 | Received date/time: 05/06/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1860794	1	05/10/22 09:02	05/10/22 09:21	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1860825	25	05/06/22 22:36	05/10/22 01:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860420	1	05/06/22 22:36	05/08/22 00:11	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1863354	1	05/13/22 10:38	05/14/22 12:19	JN	Mt. Juliet, TN

221-112-9-8.5-S-220503 L1490232-02 Solid

Collected by: R. Shropshire | Collected date/time: 05/03/22 09:08 | Received date/time: 05/06/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1860795	1	05/11/22 10:23	05/11/22 10:37	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1860825	33.3	05/06/22 22:36	05/10/22 01:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860420	1.33	05/06/22 22:36	05/08/22 00:29	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1864313	1	05/17/22 03:12	05/17/22 10:52	JAS	Mt. Juliet, TN

221-112-10.5-10.5-S-220503 L1490232-03 Solid

Collected by: R. Shropshire | Collected date/time: 05/03/22 09:10 | Received date/time: 05/06/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1860795	1	05/11/22 10:23	05/11/22 10:37	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1860751	27.5	05/06/22 22:36	05/10/22 10:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860420	1.1	05/06/22 22:36	05/08/22 00:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1864313	1	05/17/22 03:12	05/17/22 11:05	JAS	Mt. Juliet, TN

221-66.5-5.75-8.5-S-220503 L1490232-04 Solid

Collected by: R. Shropshire | Collected date/time: 05/03/22 10:18 | Received date/time: 05/06/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1860795	1	05/11/22 10:23	05/11/22 10:37	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1860751	29.3	05/06/22 22:36	05/10/22 11:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860420	1.17	05/06/22 22:36	05/08/22 01:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1864313	1	05/17/22 03:12	05/17/22 11:05	JAS	Mt. Juliet, TN

221-74-5.25-4-S-220503 L1490232-05 Solid

Collected by: R. Shropshire | Collected date/time: 05/03/22 09:45 | Received date/time: 05/06/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1860795	1	05/11/22 10:23	05/11/22 10:37	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1860751	25	05/06/22 22:36	05/10/22 11:24	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860420	1	05/06/22 22:36	05/08/22 01:26	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1864313	10	05/17/22 03:12	05/17/22 13:03	JAS	Mt. Juliet, TN

221-74-5.25-7.5-S-220503 L1490232-06 Solid

Collected by: R. Shropshire | Collected date/time: 05/03/22 10:35 | Received date/time: 05/06/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1860795	1	05/11/22 10:23	05/11/22 10:37	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1860751	26.5	05/06/22 22:36	05/10/22 11:45	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1860444	1.06	05/06/22 22:36	05/08/22 02:03	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1864313	10	05/17/22 03:12	05/17/22 12:25	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1864313	25	05/17/22 03:12	05/17/22 13:16	JAS	Mt. Juliet, TN

SAMPLE SUMMARY

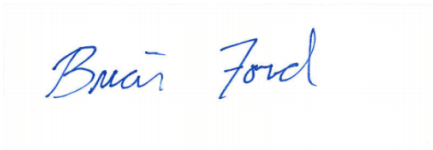
TB-01-220503 L1490232-07 GW

Collected by: R. Shropshire
Collected date/time: 05/03/22 15:55
Received date/time: 05/06/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1861963	1	05/12/22 14:23	05/12/22 14:23	CAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1862555	1	05/12/22 03:26	05/12/22 03:26	JCP	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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.7		1	05/10/2022 09:21	WG1860794

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	2.99	B J	1.15	3.38	25	05/10/2022 01:16	WG1860825
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*77.0-120*		*05/10/2022 01:16*	WG1860825

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000632	0.00135	1	05/08/2022 00:11	WG1860420
Toluene	U		0.00176	0.00677	1	05/08/2022 00:11	WG1860420
Ethylbenzene	U		0.000998	0.00338	1	05/08/2022 00:11	WG1860420
Total Xylenes	0.00972		0.00119	0.00880	1	05/08/2022 00:11	WG1860420
(S) Toluene-d8	*104*			*75.0-131*		*05/08/2022 00:11*	WG1860420
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*05/08/2022 00:11*	WG1860420
(S) 1,2-Dichloroethane-d4	*88.4*			*70.0-130*		*05/08/2022 00:11*	WG1860420

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	5.23		1.55	4.67	1	05/14/2022 12:19	WG1863354
Residual Range Organics (RRO)	14.0		3.89	11.7	1	05/14/2022 12:19	WG1863354
(S) o-Terphenyl	*63.2*			*18.0-148*		*05/14/2022 12:19*	WG1863354

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.7		1	05/11/2022 10:37	WG1860795

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	4.27	B J	1.80	5.30	33.3	05/10/2022 01:36	WG1860825
(S) a,a,a-Trifluorotoluene(FID)	*99.5*			*77.0-120*		*05/10/2022 01:36*	WG1860825

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000989	0.00212	1.33	05/08/2022 00:29	WG1860420
Toluene	U		0.00275	0.0106	1.33	05/08/2022 00:29	WG1860420
Ethylbenzene	U		0.00156	0.00530	1.33	05/08/2022 00:29	WG1860420
Total Xylenes	U		0.00186	0.0138	1.33	05/08/2022 00:29	WG1860420
(S) Toluene-d8	*102*			*75.0-131*		*05/08/2022 00:29*	WG1860420
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*05/08/2022 00:29*	WG1860420
(S) 1,2-Dichloroethane-d4	*88.4*			*70.0-130*		*05/08/2022 00:29*	WG1860420

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.78	5.35	1	05/17/2022 10:52	WG1864313
Residual Range Organics (RRO)	U		4.46	13.4	1	05/17/2022 10:52	WG1864313
(S) o-Terphenyl	*79.5*			*18.0-148*		*05/17/2022 10:52*	WG1864313

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.9		1	05/11/2022 10:37	WG1860795

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.18	3.48	27.5	05/10/2022 10:41	WG1860751
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*05/10/2022 10:41*	WG1860751

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000650	0.00139	1.1	05/08/2022 00:48	WG1860420
Toluene	U		0.00181	0.00695	1.1	05/08/2022 00:48	WG1860420
Ethylbenzene	U		0.00102	0.00348	1.1	05/08/2022 00:48	WG1860420
Total Xylenes	0.00302	J	0.00122	0.00904	1.1	05/08/2022 00:48	WG1860420
(S) Toluene-d8	*105*			*75.0-131*		*05/08/2022 00:48*	WG1860420
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*05/08/2022 00:48*	WG1860420
(S) 1,2-Dichloroethane-d4	*89.1*			*70.0-130*		*05/08/2022 00:48*	WG1860420

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.51	4.55	1	05/17/2022 11:05	WG1864313
Residual Range Organics (RRO)	U		3.79	11.4	1	05/17/2022 11:05	WG1864313
(S) o-Terphenyl	*61.2*			*18.0-148*		*05/17/2022 11:05*	WG1864313

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	66.0		1	05/11/2022 10:37	WG1860795

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		1.94	5.72	29.3	05/10/2022 11:02	WG1860751
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*05/10/2022 11:02*	WG1860751

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00107	0.00229	1.17	05/08/2022 01:07	WG1860420
Toluene	U		0.00297	0.0114	1.17	05/08/2022 01:07	WG1860420
Ethylbenzene	U		0.00168	0.00572	1.17	05/08/2022 01:07	WG1860420
Total Xylenes	U		0.00201	0.0148	1.17	05/08/2022 01:07	WG1860420
(S) Toluene-d8	*103*			*75.0-131*		*05/08/2022 01:07*	WG1860420
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*05/08/2022 01:07*	WG1860420
(S) 1,2-Dichloroethane-d4	*88.1*			*70.0-130*		*05/08/2022 01:07*	WG1860420

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	7.92		2.01	6.06	1	05/17/2022 11:05	WG1864313
Residual Range Organics (RRO)	U		5.04	15.1	1	05/17/2022 11:05	WG1864313
(S) o-Terphenyl	*51.1*			*18.0-148*		*05/17/2022 11:05*	WG1864313

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.7		1	05/11/2022 10:37	WG1860795

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	37.6		1.22	3.60	25	05/10/2022 11:24	WG1860751
(S) a,a,a-Trifluorotoluene(FID)	*111*			*77.0-120*		*05/10/2022 11:24*	WG1860751

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000672	0.00144	1	05/08/2022 01:26	WG1860420
Toluene	U		0.00187	0.00720	1	05/08/2022 01:26	WG1860420
Ethylbenzene	U		0.00106	0.00360	1	05/08/2022 01:26	WG1860420
Total Xylenes	0.0330		0.00127	0.00936	1	05/08/2022 01:26	WG1860420
(S) Toluene-d8	*102*			*75.0-131*		*05/08/2022 01:26*	WG1860420
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*05/08/2022 01:26*	WG1860420
(S) 1,2-Dichloroethane-d4	*89.1*			*70.0-130*		*05/08/2022 01:26*	WG1860420

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	712		15.9	47.8	10	05/17/2022 13:03	WG1864313
Residual Range Organics (RRO)	232		39.8	119	10	05/17/2022 13:03	WG1864313
(S) o-Terphenyl	*60.4*			*18.0-148*		*05/17/2022 13:03*	WG1864313

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.4		1	05/11/2022 10:37	WG1860795

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	5.51	B	1.41	4.15	26.5	05/10/2022 11:45	WG1860751
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*05/10/2022 11:45*	WG1860751

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000775	0.00166	1.06	05/08/2022 02:03	WG1860444
Toluene	U		0.00216	0.00830	1.06	05/08/2022 02:03	WG1860444
Ethylbenzene	0.00154	J	0.00122	0.00415	1.06	05/08/2022 02:03	WG1860444
Total Xylenes	0.00208	J	0.00146	0.0108	1.06	05/08/2022 02:03	WG1860444
(S) Toluene-d8	*105*			*75.0-131*		*05/08/2022 02:03*	WG1860444
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/08/2022 02:03*	WG1860444
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*05/08/2022 02:03*	WG1860444

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	6510		43.0	129	25	05/17/2022 13:16	WG1864313
Residual Range Organics (RRO)	225		43.0	129	10	05/17/2022 12:25	WG1864313
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*05/17/2022 13:16*	WG1864313
(S) o-Terphenyl	*0.000*	J2		*18.0-148*		*05/17/2022 12:25*	WG1864313

Sample Narrative:

L1490232-06 WG1864313: Surrogate failure due to matrix interference

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/12/2022 14:23	WG1861963
(S) a,a,a-Trifluorotoluene(FID)	*112*			*78.0-120*		*05/12/2022 14:23*	WG1861963

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	05/12/2022 03:26	WG1862555
Toluene	U		0.278	1.00	1	05/12/2022 03:26	WG1862555
Ethylbenzene	U		0.137	1.00	1	05/12/2022 03:26	WG1862555
Total Xylenes	U		0.174	3.00	1	05/12/2022 03:26	WG1862555
(S) Toluene-d8	*101*			*80.0-120*		*05/12/2022 03:26*	WG1862555
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*05/12/2022 03:26*	WG1862555
(S) 1,2-Dichloroethane-d4	*86.4*			*70.0-130*		*05/12/2022 03:26*	WG1862555

Method Blank (MB)

(MB) R3790440-1 05/10/22 09:21

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1490605-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1490605-02 05/10/22 09:21 • (DUP) R3790440-3 05/10/22 09:21

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	70.5	69.9	1	0.817		10

Laboratory Control Sample (LCS)

(LCS) R3790440-2 05/10/22 09:21

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3790952-1 05/11/22 10:37

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

L1490630-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1490630-01 05/11/22 10:37 • (DUP) R3790952-3 05/11/22 10:37

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	75.1	75.5	1	0.560		10

Laboratory Control Sample (LCS)

(LCS) R3790952-2 05/11/22 10:37

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3790046-3 05/10/22 03:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	0.934	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3790046-2 05/10/22 02:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPHG C6 - C12	5.50	4.90	89.1	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*99.0*	*77.0-120*	

L1488905-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1488905-01 05/10/22 10:19 • (MS) R3790046-6 05/10/22 13:33 • (MSD) R3790046-7 05/10/22 13:54

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	159	U	186	175	116	109	25	50.0-150			6.11	27
(S) a,a,a-Trifluorotoluene(FID)					*105*	*102*		*77.0-120*				

Method Blank (MB)

(MB) R3790035-2 05/09/22 20:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	2.05	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*77.0-120*

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

(LCS) R3790035-1 05/09/22 19:33 • (LCSD) R3790035-3 05/10/22 03:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	5.90	6.71	107	122	71.0-124			12.8	20
(S) a,a,a-Trifluorotoluene(FID)				*107*	*110*	*77.0-120*				

Method Blank (MB)

(MB) R3791523-2 05/12/22 13:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*112*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3791523-1 05/12/22 13:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	4680	85.1	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

L1490993-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1490993-06 05/12/22 19:46 • (MS) R3791523-3 05/12/22 21:33 • (MSD) R3791523-4 05/12/22 21:55

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	27500	54000	68600	72200	53.1	66.2	5	10.0-155	E	E	5.11	21
(S) a,a,a-Trifluorotoluene(FID)					*96.9*	*96.6*		*78.0-120*				

Method Blank (MB)

(MB) R3790253-2 05/07/22 21:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*104*			*75.0-131*
(S) 4-Bromofluorobenzene	*109*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*86.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3790253-1 05/07/22 20:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.115	92.0	70.0-123	
Toluene	0.125	0.127	102	75.0-121	
Ethylbenzene	0.125	0.112	89.6	74.0-126	
Xylenes, Total	0.375	0.330	88.0	72.0-127	
(S) Toluene-d8			*102*	*75.0-131*	
(S) 4-Bromofluorobenzene			*108*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*86.6*	*70.0-130*	

L1490135-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1490135-06 05/08/22 02:41 • (MS) R3790253-3 05/08/22 03:57 • (MSD) R3790253-4 05/08/22 04:15

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	1.00	U	0.382	0.392	38.2	39.2	8	10.0-149			2.58	37
Toluene	1.00	0.0246	0.458	0.468	43.3	44.3	8	10.0-156			2.16	38
Ethylbenzene	1.00	2.93	5.25	5.34	232	241	8	10.0-160	J5	J5	1.70	38
Xylenes, Total	3.00	14.8	26.0	26.7	373	397	8	10.0-160	V	V	2.66	38
(S) Toluene-d8					*105*	*103*		*75.0-131*				
(S) 4-Bromofluorobenzene					*112*	*108*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*80.6*	*78.7*		*70.0-130*				

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R3789594-2 05/07/22 21:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*105*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.9*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

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

(LCS) R3789594-1 05/07/22 20:02 • (LCSD) R3789594-3 05/08/22 02:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.124	0.119	99.2	95.2	70.0-123			4.12	20
Toluene	0.125	0.127	0.121	102	96.8	75.0-121			4.84	20
Ethylbenzene	0.125	0.123	0.117	98.4	93.6	74.0-126			5.00	20
Xylenes, Total	0.375	0.356	0.345	94.9	92.0	72.0-127			3.14	20
(S) Toluene-d8				*104*	*103*	*75.0-131*				
(S) 4-Bromofluorobenzene				*97.2*	*99.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*112*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R3791290-2 05/12/22 03:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*88.6*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3791290-1 05/12/22 02:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	5.03	101	70.0-123	
Toluene	5.00	5.34	107	79.0-120	
Ethylbenzene	5.00	5.13	103	79.0-123	
Xylenes, Total	15.0	15.7	105	79.0-123	
(S) Toluene-d8			*98.9*	*80.0-120*	
(S) 4-Bromofluorobenzene			*105*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*91.8*	*70.0-130*	

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

Method Blank (MB)

(MB) R3791891-1 05/14/22 09:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*69.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3791891-2 05/14/22 09:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	36.1	72.2	50.0-150	
(S) o-Terphenyl			*67.3*	*18.0-148*	

L1491196-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1491196-02 05/14/22 13:24 • (MS) R3791891-3 05/14/22 13:37 • (MSD) R3791891-4 05/14/22 13:50

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	61.1	800	586	963	0.000	266	5	50.0-150	V	J3 V	48.7	20
(S) o-Terphenyl					*76.2*	*89.6*		*18.0-148*				

Method Blank (MB)

(MB) R3792746-1 05/17/22 10:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*72.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3792746-2 05/17/22 10:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	39.2	78.4	50.0-150	
(S) o-Terphenyl			*53.9*	*18.0-148*	

L1490232-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1490232-03 05/17/22 11:05 • (MS) R3792765-1 05/17/22 11:18 • (MSD) R3792765-2 05/17/22 11:31

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	56.6	U	37.8	40.7	66.8	72.0	1	50.0-150			7.54	20
(S) o-Terphenyl					*52.6*	*55.6*		*18.0-148*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Leidos Inc.- Bothell, WA

11824 North Creek Parkway N
Suite 101
Bothell. WA 98011

Billing Information:
Accounts Payable
11824 North Creek Parkway N
Suite 101
Bothell, WA 98011

Pres Chk

Report to:
Russ Shropshire

Email To: **russell.s.shropshire@leidos.com**

Project Description:
Chevron #9-6590

City/State Collected: Chelan, WA

Please Circle: (PT) MT CT ET

Phone: **425-482-3323**

Client Project #

Lab Project #
LEIDOSBWA-CHELAN

Collected by (print):
R. Shropshire

Site/Facility ID # WOODIN
232 EAST ~~WOODLIN~~ AVE

P.O. #
P010246476

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX/EDC 8260D 40mlAmb-HCl	EDB 8011 40mlClr-NaThio	NWTPHDX no silica 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	PCE/TCE/VC 8260D 40mlAmb-HCl	Total Pb 6010 250mlHDPE-HNO3	BTEX 8260D	NWTPHDx No silica gel	NWTPHGX		Remarks	Sample # (lab only)
ES-CL-MA-10-S-220502	Grab	~~GW~~ SS	10	5-2-22	1515	2							X	X	X			-01
221-112-9-8.5-S-220503		~~GW~~ SS	8.5	5-3-22	0908								X	X	X			-02
221-112-10.5-10.5-S-220503		~~GW~~ SS	10.5	5-3-22	0910								X	X	X			-03
221-66.5-5.75-8.5-S-220503		~~GW~~ SS	8.5	5-3-22	1018								X	X	X			-04
221-74-5.25-4-S-220503		~~GW~~ SS	4	5-3-22	0945								X	X	X			-05
221-74-5.25-7.5-S-220503		~~GW~~ SS	7.5	5-3-22	1035								X	X	X			-06
TB-01-220503		OT ~~GW~~	NA	5-3-22	1555								X		X			-07
		GW																
		GW																
		GW			5-4-22													

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 5433 8382 0185

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	5-4-22	1600	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
2 (HCL / MeoH) TBR

Temp DRAFT C 1.6 to 1.6 Bottles Received: 12

Date: 5/5/22 Time: 930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # L1490232
F234

Acctnum: **LEIDOSBWA**
Template: **T208001**
Prelogin: **P919769**
PM: **110 - Brian Ford**
PB:

Shipped Via:

Remarks | Sample # (lab only)

ANALYTICAL REPORT

May 23, 2022

Leidos Inc.- Bothell, WA

Sample Delivery Group:	L1492491
Samples Received:	05/11/2022
Project Number:	
Description:	Chevron #9-6590
Site:	232 EAST WOODIN AVE
Report To:	Russ Shropshire 11824 North Creek Parkway N Suite 101 Bothell, WA 98011

Entire Report Reviewed By:

Brian Ford
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.

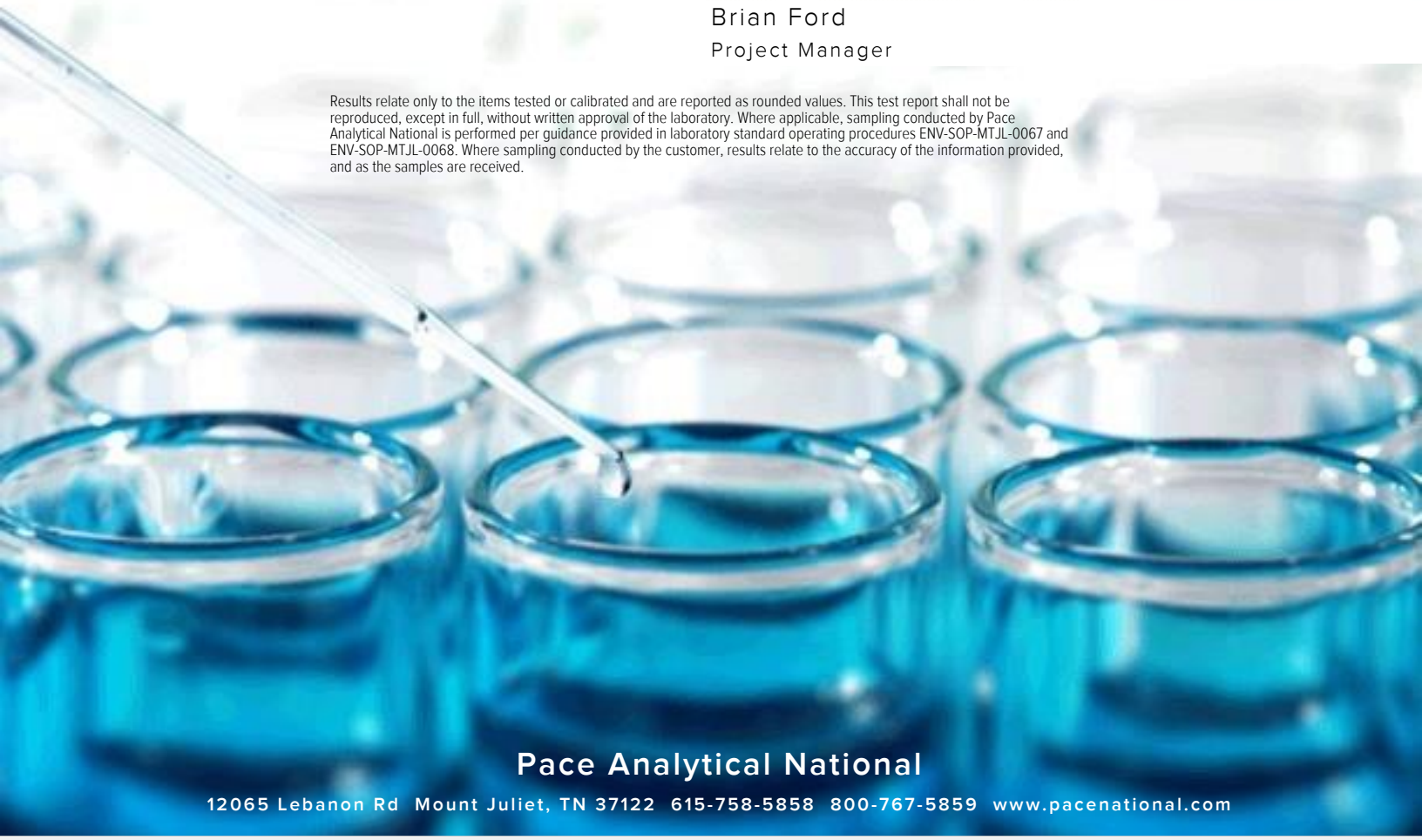


TABLE OF CONTENTS

205-24-7-5-S-220504 L1492491-01 Solid

Collected by: T. Duge | Collected date/time: 05/04/22 10:40 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863641	1	05/14/22 19:57	05/14/22 20:21	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	25	05/04/22 10:40	05/15/22 12:46	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	1	05/04/22 10:40	05/14/22 16:43	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865134	1	05/18/22 10:05	05/18/22 18:39	JAS	Mt. Juliet, TN

209-29-5-4.7-S-220505 L1492491-02 Solid

Collected by: T. Duge | Collected date/time: 05/05/22 16:00 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863641	1	05/14/22 19:57	05/14/22 20:21	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	28.2	05/05/22 16:00	05/15/22 13:09	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	1.13	05/05/22 16:00	05/14/22 17:03	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865837	100	05/19/22 13:33	05/20/22 11:05	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865837	20	05/19/22 13:33	05/20/22 02:25	JAS	Mt. Juliet, TN

209-29-5-7.7-S-220505 L1492491-03 Solid

Collected by: T. Duge | Collected date/time: 05/05/22 16:10 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863641	1	05/14/22 19:57	05/14/22 20:21	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	29.8	05/05/22 16:10	05/15/22 13:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	9.52	05/05/22 16:10	05/14/22 20:38	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865837	20	05/19/22 13:33	05/20/22 02:38	JAS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865837	200	05/19/22 13:33	05/20/22 11:18	JAS	Mt. Juliet, TN

209-29-5-9.9-S-220505 L1492491-04 Solid

Collected by: T. Duge | Collected date/time: 05/05/22 16:20 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863641	1	05/14/22 19:57	05/14/22 20:21	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	25	05/05/22 16:20	05/15/22 13:55	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	1	05/05/22 16:20	05/14/22 17:23	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865837	5	05/19/22 13:33	05/20/22 10:37	JAS	Mt. Juliet, TN

221-71-3.5-9.5-S-220504 L1492491-05 Solid

Collected by: T. Duge | Collected date/time: 05/04/22 15:35 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863812	1	05/16/22 14:28	05/16/22 14:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	27.5	05/04/22 15:35	05/15/22 14:18	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	1.1	05/04/22 15:35	05/14/22 17:42	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865134	1	05/18/22 10:05	05/18/22 17:46	JAS	Mt. Juliet, TN

221-76-7-5-S-220504 L1492491-06 Solid

Collected by: T. Duge | Collected date/time: 05/04/22 14:50 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863812	1	05/16/22 14:28	05/16/22 14:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	25	05/04/22 14:50	05/15/22 14:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	1	05/04/22 14:50	05/14/22 18:01	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865134	1	05/18/22 10:05	05/18/22 17:59	JAS	Mt. Juliet, TN

SAMPLE SUMMARY

221-112-7-5-S-220504 L1492491-07 Solid

Collected by: T. Duge | Collected date/time: 05/04/22 16:10 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863812	1	05/16/22 14:28	05/16/22 14:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	25	05/04/22 16:10	05/15/22 15:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	1	05/04/22 16:10	05/14/22 18:21	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1865134	1	05/18/22 10:05	05/18/22 18:26	JAS	Mt. Juliet, TN

229-48-18.5-10.2-S-220506 L1492491-08 Solid

Collected by: T. Duge | Collected date/time: 05/06/22 14:30 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1863812	1	05/16/22 14:28	05/16/22 14:36	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1863244	25	05/06/22 14:30	05/15/22 15:26	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863929	1	05/06/22 14:30	05/14/22 18:40	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1866492	1	05/20/22 16:25	05/21/22 21:19	JDG	Mt. Juliet, TN

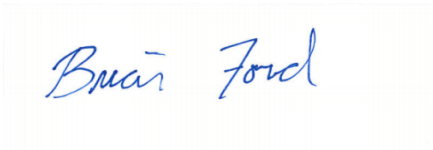
TB-01-220504 L1492491-09 GW

Collected by: T. Duge | Collected date/time: 05/04/22 12:00 | Received date/time: 05/11/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1864798	1	05/17/22 14:40	05/17/22 14:40	MGF	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1863768	1	05/14/22 04:38	05/14/22 04:38	JCP	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.



Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.7		1	05/14/2022 20:21	WG1863641

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.42	B J	1.22	3.60	25	05/15/2022 12:46	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*77.0-120*		*05/15/2022 12:46*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000673	0.00144	1	05/14/2022 16:43	WG1863929
Toluene	U		0.00187	0.00720	1	05/14/2022 16:43	WG1863929
Ethylbenzene	U		0.00106	0.00360	1	05/14/2022 16:43	WG1863929
Total Xylenes	U		0.00127	0.00936	1	05/14/2022 16:43	WG1863929
(S) Toluene-d8	*109*			*75.0-131*		*05/14/2022 16:43*	WG1863929
(S) 4-Bromofluorobenzene	*87.8*			*67.0-138*		*05/14/2022 16:43*	WG1863929
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*		*05/14/2022 16:43*	WG1863929

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	6.19		1.59	4.78	1	05/18/2022 18:39	WG1865134
Residual Range Organics (RRO)	45.8		3.98	12.0	1	05/18/2022 18:39	WG1865134
(S) o-Terphenyl	*66.8*			*18.0-148*		*05/18/2022 18:39*	WG1865134

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	70.5		1	05/14/2022 20:21	WG1863641

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	208		1.71	5.05	28.2	05/15/2022 13:09	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*99.0*			*77.0-120*		*05/15/2022 13:09*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000945	0.00202	1.13	05/14/2022 17:03	WG1863929
Toluene	U		0.00263	0.0101	1.13	05/14/2022 17:03	WG1863929
Ethylbenzene	U		0.00149	0.00507	1.13	05/14/2022 17:03	WG1863929
Total Xylenes	U		0.00178	0.0132	1.13	05/14/2022 17:03	WG1863929
(S) Toluene-d8	*111*			*75.0-131*		*05/14/2022 17:03*	WG1863929
(S) 4-Bromofluorobenzene	*97.6*			*67.0-138*		*05/14/2022 17:03*	WG1863929
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*		*05/14/2022 17:03*	WG1863929

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	28100		189	568	100	05/20/2022 11:05	WG1865837
Residual Range Organics (RRO)	720		94.5	284	20	05/20/2022 02:25	WG1865837
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*05/20/2022 11:05*	WG1865837
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*05/20/2022 02:25*	WG1865837

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.9		1	05/14/2022 20:21	WG1863641

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	395		1.48	4.36	29.8	05/15/2022 13:32	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*		*05/15/2022 13:32*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00651	0.0139	9.52	05/14/2022 20:38	WG1863929
Toluene	U		0.0182	0.0697	9.52	05/14/2022 20:38	WG1863929
Ethylbenzene	U		0.0103	0.0348	9.52	05/14/2022 20:38	WG1863929
Total Xylenes	U		0.0123	0.0906	9.52	05/14/2022 20:38	WG1863929
(S) Toluene-d8	*110*			*75.0-131*		*05/14/2022 20:38*	WG1863929
(S) 4-Bromofluorobenzene	*117*			*67.0-138*		*05/14/2022 20:38*	WG1863929
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*05/14/2022 20:38*	WG1863929

Sample Narrative:

L1492491-03 WG1863929: Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	61100		333	1000	200	05/20/2022 11:18	WG1865837
Residual Range Organics (RRO)	713		83.4	250	20	05/20/2022 02:38	WG1865837
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*05/20/2022 11:18*	WG1865837
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*05/20/2022 02:38*	WG1865837

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	05/14/2022 20:21	WG1863641

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	55.8		1.01	2.99	25	05/15/2022 13:55	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*77.0-120*		*05/15/2022 13:55*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000558	0.00120	1	05/14/2022 17:23	WG1863929
Toluene	U		0.00155	0.00598	1	05/14/2022 17:23	WG1863929
Ethylbenzene	U		0.000881	0.00299	1	05/14/2022 17:23	WG1863929
Total Xylenes	U		0.00105	0.00777	1	05/14/2022 17:23	WG1863929
(S) Toluene-d8	*113*			*75.0-131*		*05/14/2022 17:23*	WG1863929
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*05/14/2022 17:23*	WG1863929
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*05/14/2022 17:23*	WG1863929

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	1150		7.24	21.8	5	05/20/2022 10:37	WG1865837
Residual Range Organics (RRO)	79.9		18.1	54.4	5	05/20/2022 10:37	WG1865837
(S) o-Terphenyl	*128*			*18.0-148*		*05/20/2022 10:37*	WG1865837

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.2		1	05/16/2022 14:36	WG1863812

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	2.17	B J	1.46	4.30	27.5	05/15/2022 14:18	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*77.0-120*		*05/15/2022 14:18*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000803	0.00172	1.1	05/14/2022 17:42	WG1863929
Toluene	U		0.00223	0.00859	1.1	05/14/2022 17:42	WG1863929
Ethylbenzene	U		0.00127	0.00430	1.1	05/14/2022 17:42	WG1863929
Total Xylenes	U		0.00151	0.0112	1.1	05/14/2022 17:42	WG1863929
(S) Toluene-d8	*110*			*75.0-131*		*05/14/2022 17:42*	WG1863929
(S) 4-Bromofluorobenzene	*89.1*			*67.0-138*		*05/14/2022 17:42*	WG1863929
(S) 1,2-Dichloroethane-d4	*98.1*			*70.0-130*		*05/14/2022 17:42*	WG1863929

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	383		1.72	5.18	1	05/18/2022 17:46	WG1865134
Residual Range Organics (RRO)	51.5		4.31	12.9	1	05/18/2022 17:46	WG1865134
(S) o-Terphenyl	*48.1*			*18.0-148*		*05/18/2022 17:46*	WG1865134

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.1		1	05/16/2022 14:36	WG1863812

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	98.3		1.16	3.43	25	05/15/2022 14:41	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*77.0-120*		*05/15/2022 14:41*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000641	0.00137	1	05/14/2022 18:01	WG1863929
Toluene	U		0.00179	0.00687	1	05/14/2022 18:01	WG1863929
Ethylbenzene	U		0.00101	0.00343	1	05/14/2022 18:01	WG1863929
Total Xylenes	0.0662		0.00121	0.00893	1	05/14/2022 18:01	WG1863929
(S) Toluene-d8	*112*			*75.0-131*		*05/14/2022 18:01*	WG1863929
(S) 4-Bromofluorobenzene	*122*			*67.0-138*		*05/14/2022 18:01*	WG1863929
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*		*05/14/2022 18:01*	WG1863929

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	122		1.56	4.70	1	05/18/2022 17:59	WG1865134
Residual Range Organics (RRO)	82.8		3.91	11.8	1	05/18/2022 17:59	WG1865134
(S) o-Terphenyl	*45.5*			*18.0-148*		*05/18/2022 17:59*	WG1865134

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.6		1	05/16/2022 14:36	WG1863812

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	65.8		1.07	3.16	25	05/15/2022 15:03	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*77.0-120*		*05/15/2022 15:03*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000590	0.00126	1	05/14/2022 18:21	WG1863929
Toluene	U		0.00164	0.00631	1	05/14/2022 18:21	WG1863929
Ethylbenzene	U		0.000931	0.00316	1	05/14/2022 18:21	WG1863929
Total Xylenes	0.0141		0.00111	0.00821	1	05/14/2022 18:21	WG1863929
(S) Toluene-d8	*112*			*75.0-131*		*05/14/2022 18:21*	WG1863929
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*05/14/2022 18:21*	WG1863929
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*05/14/2022 18:21*	WG1863929

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	11.1		1.50	4.51	1	05/18/2022 18:26	WG1865134
Residual Range Organics (RRO)	52.2		3.76	11.3	1	05/18/2022 18:26	WG1865134
(S) o-Terphenyl	*63.5*			*18.0-148*		*05/18/2022 18:26*	WG1865134

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.8		1	05/16/2022 14:36	WG1863812

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.05	B J	0.923	2.72	25	05/15/2022 15:26	WG1863244
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*77.0-120*		*05/15/2022 15:26*	WG1863244

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000509	0.00109	1	05/14/2022 18:40	WG1863929
Toluene	U		0.00142	0.00544	1	05/14/2022 18:40	WG1863929
Ethylbenzene	U		0.000802	0.00272	1	05/14/2022 18:40	WG1863929
Total Xylenes	U		0.000958	0.00708	1	05/14/2022 18:40	WG1863929
(S) Toluene-d8	*113*			*75.0-131*		*05/14/2022 18:40*	WG1863929
(S) 4-Bromofluorobenzene	*92.8*			*67.0-138*		*05/14/2022 18:40*	WG1863929
(S) 1,2-Dichloroethane-d4	*97.6*			*70.0-130*		*05/14/2022 18:40*	WG1863929

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.39	4.17	1	05/21/2022 21:19	WG1866492
Residual Range Organics (RRO)	U		3.47	10.4	1	05/21/2022 21:19	WG1866492
(S) o-Terphenyl	*67.9*			*18.0-148*		*05/21/2022 21:19*	WG1866492

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	05/17/2022 14:40	WG1864798
(S) a,a,a-Trifluorotoluene(FID)	*99.8*			*78.0-120*		*05/17/2022 14:40*	WG1864798

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	05/14/2022 04:38	WG1863768
Toluene	U		0.278	1.00	1	05/14/2022 04:38	WG1863768
Ethylbenzene	U		0.137	1.00	1	05/14/2022 04:38	WG1863768
Total Xylenes	U		0.174	3.00	1	05/14/2022 04:38	WG1863768
(S) Toluene-d8	*97.8*			*80.0-120*		*05/14/2022 04:38*	WG1863768
(S) 4-Bromofluorobenzene	*97.3*			*77.0-126*		*05/14/2022 04:38*	WG1863768
(S) 1,2-Dichloroethane-d4	*92.4*			*70.0-130*		*05/14/2022 04:38*	WG1863768

Method Blank (MB)

(MB) R3792165-1 05/14/22 20:21

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1492491-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1492491-04 05/14/22 20:21 • (DUP) R3792165-3 05/14/22 20:21

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.9	91.9	1	0.0472		10

Laboratory Control Sample (LCS)

(LCS) R3792165-2 05/14/22 20:21

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3792557-1 05/16/22 14:36

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

L1492556-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1492556-01 05/16/22 14:36 • (DUP) R3792557-3 05/16/22 14:36

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.5	81.5	1	0.00748		10

Laboratory Control Sample (LCS)

(LCS) R3792557-2 05/16/22 14:36

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3792602-2 05/15/22 11:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	1.56	J	0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3792602-1 05/15/22 10:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	6.43	117	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*108*	*77.0-120*	

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

Method Blank (MB)

(MB) R3792853-2 05/17/22 13:03

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3792853-1 05/17/22 12:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	4870	88.5	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

L1492883-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492883-03 05/17/22 21:13 • (MS) R3792853-3 05/17/22 22:48 • (MSD) R3792853-4 05/17/22 23:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	182	6290	5670	111	99.8	1	10.0-155			10.4	21
(S) a,a,a-Trifluorotoluene(FID)					*101*	*100*		*78.0-120*				

Method Blank (MB)

(MB) R3791959-2 05/14/22 04:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	*102*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*91.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3791959-1 05/14/22 03:32

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	5.48	110	70.0-123	
Toluene	5.00	5.53	111	79.0-120	
Ethylbenzene	5.00	5.42	108	79.0-123	
Xylenes, Total	15.0	16.3	109	79.0-123	
(S) Toluene-d8			*98.0*	*80.0-120*	
(S) 4-Bromofluorobenzene			*100*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*91.1*	*70.0-130*	

Method Blank (MB)

(MB) R3793139-2 05/14/22 15:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*107*			*75.0-131*
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*98.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3793139-1 05/14/22 14:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.100	80.0	70.0-123	
Toluene	0.125	0.114	91.2	75.0-121	
Ethylbenzene	0.125	0.106	84.8	74.0-126	
Xylenes, Total	0.375	0.309	82.4	72.0-127	
(S) Toluene-d8			*107*	*75.0-131*	
(S) 4-Bromofluorobenzene			*91.3*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

L1492519-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492519-29 05/14/22 21:56 • (MS) R3793139-3 05/14/22 22:15 • (MSD) R3793139-4 05/14/22 22:35

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	0.0390	1.99	3.34	39.0	66.0	40	10.0-149		J3	50.7	37
Toluene	5.00	U	2.21	3.84	44.2	76.8	40	10.0-156		J3	53.9	38
Ethylbenzene	5.00	13.6	18.8	20.9	104	146	40	10.0-160			10.6	38
Xylenes, Total	15.0	16.8	28.4	33.4	77.3	111	40	10.0-160			16.2	38
(S) Toluene-d8					*108*	*106*		*75.0-131*				
(S) 4-Bromofluorobenzene					*94.8*	*96.6*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*106*	*101*		*70.0-130*				

Sample Narrative:

OS: Non-target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R3793316-1 05/18/22 15:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*79.4*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3793316-2 05/18/22 15:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	38.3	76.6	50.0-150	
(S) o-Terphenyl			*87.5*	*18.0-148*	

L1490691-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1490691-01 05/18/22 18:12 • (MS) R3793316-3 05/18/22 18:26 • (MSD) R3793316-4 05/18/22 18:39

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	54.2	10.6	48.5	58.9	70.1	89.3	1	50.0-150			19.3	20
(S) o-Terphenyl					*59.6*	*71.3*		*18.0-148*				

Method Blank (MB)

(MB) R3794114-1 05/19/22 21:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*50.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3794114-2 05/19/22 21:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	37.7	75.4	50.0-150	
(S) o-Terphenyl			*77.3*	*18.0-148*	

L1492308-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1492308-01 05/20/22 10:18 • (MS) R3794239-1 05/20/22 10:31 • (MSD) R3794239-2 05/20/22 10:45

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	48.8	3.54	36.1	39.7	66.7	74.4	1	50.0-150			9.50	20
(S) o-Terphenyl					*69.1*	*77.3*		*18.0-148*				

Method Blank (MB)

(MB) R3794923-1 05/21/22 10:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*62.3*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3794923-2 05/21/22 10:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	36.2	72.4	50.0-150	
(S) o-Terphenyl			*53.8*	*18.0-148*	

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Leidos Inc.- Bothell, WA
11824 North Creek Parkway N
Suite 101
Bothell. WA 98011

Billing Information:
Accounts Payable
11824 North Creek Parkway N
Suite 101
Bothell, WA 98011

Pres Chk

Report to: Russ Shropshire

Email To: russell.s.shropshire@leidos.com

Project Description: Chevron #9-6590

City/State Collected: Chelan WA

Please Circle: (PT) MT CT ET

Phone: 425-482-3323

Client Project #

Lab Project # LEIDOSBWA-CHELAN

Collected by (print): T. Dubé

Site/Facility ID # WOODIN 232 EAST ~~WOODLIN~~ AVE

P.O. # P010246476

Collected by (signature): Tom Dubé

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8260D 40mlAmb/MeOH10ml/Syr	NWTPHDX no silica 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr							Remarks	Sample # (lab only)
205-24-7-5-S-220504	Grab	SS	5	5-4-22	10:40	2	X	X	X								-01
209-29-5-4.7-S-220505		SS	4.7	5-5-22	1600		X	X	X								-02
209-29-5-7.7-S-220505		SS	7.7	5-5-22	1610		X	X	X								-03
209-29-5-9.9-S-220505		SS	9.9	5-5-22	1620		X	X	X								-04
221-71-3.5-9.5-S-220504		SS	9.5	5-4-22	1535		X	X	X								-05
221-76-7-5-S-220504		SS	5	5-4-22	1450		X	X	X								-06
221-112-7-5-S-220504		SS	5	5-4-22	1610		X	X	X								-07
229-48-18.5-10.2-S-220506 RSS		SS	10.2	5-6-22	1430		X	X	X								-08
TB-01-220504		~~OT~~ SS	NA	5-4-22	1200		X		X								-09
		SS															

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

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

SDG # L1492491
B079

Acctnum: LEIDOSBWA
Template: T203802
Prelogin: P909882
PM: 110 - Brian Ford
PB:
Shipped Via:

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS X FedEx __ Courier _____

Tracking # 9159 8780 2855

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	5-9-22	1600	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Veronica Sistrunk

Trip Blank Received: (Yes) No
2 (HCL) MeoH TBR

Temp: °C Bottles Received:
DRAG 4.3 10=4.3 16

If preservation required by Login: Date/Time

Date: 5/11/22 Time: 0930

Hold:

Condition: NCF / (OK)