Supplemental Phase II Environmental Site Assessment

130 East Sprague Avenue
Spokane, Washington 99202

July 27, 2021

Prepared for:

Spokane Roofing Company
Mrs. Christine Sitton, Owner
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Spokane, Washington 99202

Prepared by:

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Sign-off Sheet

This document entitled *Supplemental Phase II Environmental Site Assessment, 130 East Sprague Avenue, Spokane, Washington 99202* was prepared by Stantec Consulting Services Inc. (Stantec) for Spokane Roofing Company, (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment considering the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not consider any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party because of decisions made or actions taken based on this document.

This document was prepared under the supervision and direction of the key staff identified below.

Prepared by 

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Table of Contents

LIST OF FIGURES

LIST OF TABLES

TABLE EMBEDDED IN TEXT

LIST OF APPENDICES

Acronyms and Abbreviations

ABCA	analysis of brownfield cleanup alternatives
bgs	below ground surface
City	City of Spokane
cPAH	carcinogenic PAH
CUL	cleanup levels
DRO	diesel range organics
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ESA	environmental site assessment
ft^2	square foot
Geophysical Survey	Geophysical Survey LLC
GRO	gasoline range organics
mg/kg	milligrams per kilogram
MTCA	Model Toxics Control Act
NWTPH	Northwest Total Petroleum Hydrocarbon
PAH	polycyclic aromatic hydrocarbon
PID	photoionization detector
REC	recognized environmental condition
RCRA	Resource Conservation and Recovery Act
RRO	residual range organics
SIM	selective ion monitoring
Stantec	Stantec Consulting Services Inc.
TCLP	toxicity characteristic leaching procedure
TEQ	toxicity equivalency quotient
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code

1.0 INTRODUCTION

On behalf of Spokane Roofing Company (Client), Stantec Consulting Services Inc. (Stantec) has completed a Supplemental Phase II Environmental Site Assessment (ESA) for the property located at 130 East Sprague Avenue in Spokane, Washington (the "Property"). **Figure 1** shows the location of the Property. The work described herein was completed in general accordance with the scope, methods, and requirements detailed in *Proposal for Supplemental Phase II Environmental Site Assessment, Spokane Roofing, 130 East Sprague Avenue, Spokane Washington* (Stantec 2021b) dated April 30, 2021 and approved by the Client on May 21, 2021.

2.0 SITE DESCRIPTION

The Property consists of approximately 0.37 acres of land (Spokane County Parcel ID# 35202.0606) improved with a 4,200-square-foot (ft^2) office and garage building and an attached 960-ft^2 workshop on the northern half of the Property. The southern half of the Property is gravel covered and used for Property access, vehicle and equipment parking, and material storage on racks and within an approximate 360-ft^2 3-sided pole building. The Property is owned by Sitton Properties, LLC and occupied by Spokane Roofing Company, a commercial and residential roofing services company.

The Property is located at an elevation of approximately 1,930 feet above sea level and is generally flat. The ground surface in the vicinity of the Property slopes downward to the north-northwest towards the Spokane River located approximately 0.40 miles from the Property. The Property is bounded to the north by East Sprague Avenue followed by an unoccupied commercial building, to the east by South Cowley Street followed by Curt's City Center Oil & Lube and Used Car, to the south by East 1st Avenue followed by a parking lot, and to the west by Community Pint, a beer sales business. The locations and layout of adjoining properties are shown on **Figure 2**.

2.1 FUTURE LAND USE

Stantec understands that Spokane Roofing Company has a contract agreement for sale of the Property and would like to perform the Supplemental Phase II ESA to further delineate impacted soils at the Property in order to develop a cost estimate for a remedial action to cleanup impacted soils.

2.2 PREVIOUS ASSESSMENTS

2.2.1 2020 Phase I ESA

A Phase I ESA report completed by Stantec (Stantec 2020b) showed the Property was vacant from at least 1891 until it was first purpose-built for Spokane Roofing Company in 1958. The Sitton's acquired the business in 2002.

During the Phase I ESA, a partially exposed underground storage tank (UST) was identified in the slope at the northwest corner of the Property. According to the Property owner, the UST has not been in use since at least their acquisition of the Property in 2002. In addition to this UST, historical records obtained from the City of Spokane Fire Department indicated a permit was issued to Spokane Roofing Company on March 21, 1972, for the installation of a 2,000-gallon gasoline UST and dispenser. The permit included a handwritten note indicating the UST and dispenser were removed in 1988; however, the location of the UST and dispenser was not indicated on the permit.

Historical records for adjacent properties indicated the east adjacent property at 210 East Sprague Avenue currently occupied by Curt's City Center Oil and Lube (since at least 2009) was formerly used for a retail gas station from 1954 to 1969 as well as for automotive repair, aluminum recycling, and as a junk

dealer. The northeast adjacent property located at 201 East Sprague Avenue is currently occupied by Spokane Movers and was formerly a retail gas station in the 1940s.

The following recognized environmental conditions (RECs) were identified in connection with the Property during the Phase I ESA:

- **REC #1**: The presence of a UST at the northwest corner of the Property with no documentation of its historical uses, contents, or integrity, and its potential to have resulted in a release of petroleum products to the environment is a REC for the Property.
- **REC #2**: The absence of records documenting the location, assessment, and removal of the 2,000-gallon gasoline UST and dispenser and their potential to have resulted in a release of petroleum products to the environment is a REC for the Property.
- **REC #3**: The presence of a former gas station in close proximity to the Property (60 feet to the east), in combination with a lack of records documenting decommissioning and assessment of the associated former fueling system(s), is a REC for the Property.
- **REC #4**: The presence of a former gas station in close proximity to the Property (100 feet to the northeast), in combination with the lack of records documenting decommissioning and assessment of the associated former fueling system(s), is a REC for the Property.

Based on the identified RECs, it was recommended that a Phase II ESA be conducted prior to redevelopment or reuse of the Property.

2.2.2 2020 Phase II ESA

Stantec completed a Phase II ESA at the Property in September of 2020 to evaluate the RECs identified above. The investigation included the following scope of work:

- A geophysical survey to attempt to identify the 2,000-gallon UST cavity on the Property as well as to define the limits of the partially exposed UST in the slope at the northwest corner of the Property.
- Advancement of ten borings (designated BH01 through BH10) for collection of soil samples for laboratory analysis.
- Analysis of soil samples for Resource Conservation and Recovery Act (RCRA) 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), gasoline-range organics (GRO), diesel-range organics (DRO), residual oil-range organics (RRO), polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs).

The Phase II ESA revealed the following:

- Evidence of the 2,000-gallon UST cavity was found near the center of the southern half of the Property. Borings BH09 and BH10 were located near the former UST cavity. No GRO was detected in any of the samples from these two borings, indicating that a significant release of gasoline had not occurred in this area of the Property. The only petroleum-derived VOC detected was benzene in one sample at a concentration well below its Washington Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A (unrestricted land use) Cleanup Levels (CULs).

- Metals (arsenic, cadmium, and lead) were detected at concentrations that exceeded their MTCA Method A CULs in sample BH06 (2.0–3.0 feet) and RRO was detected at a concentration that exceeded its MTCA Method A CUL in sample BH07 (0.5–1.0 foot).
- PAHs (benzo[a]pyrene and total Toxicity Equivalency Quotient) were also detected at concentrations that exceeded the MTCA Method A CUL in multiple samples collected across the Property including borings BH04, BH06, BH07, BH09, and BH10.

The Phase II ESA recommended additional sampling to delineate the impacts of metals in the sample from BH06 and RRO in the sample from BH07, Stantec recommended additional sampling for PAHs in addition to the other analytes given the observed concentrations throughout the Property. The September 2020 soil analytical results are presented in **Table 1**.

Once the metals, RRO, and PAHs have been delineated, an Analysis of Brownfield Cleanup Alternatives (ABCA) is recommended for the remediation of soil impacts on the Property at concentrations that exceed the MTCA Method A CULs. The ABCA identifies cleanup objectives and provides an analysis of cleanup alternatives based on effectiveness, ability to implement, cost analysis, and development of a proposed remedial action.

3.0 PROJECT OBJECTIVES AND SCOPE OF WORK

The primary objectives of this Supplemental Phase II ESA were to:

1. Delineate the impacts of arsenic, cadmium and lead in the sample from BH06 and RRO in the sample from BH07 identified during the September 2020 Phase II ESA.

2. Soil sampling for PAHs during the September 2020 Phase II ESA indicated elevated PAH levels in a small subset of samples and further investigation was recommended.

To accomplish these objectives, Stantec proposed implementation of the scope of work below. Because groundwater was anticipated to be at a depth of 60 feet or more, no groundwater samples were proposed.

- Advancement of 13 borings (designated BH100 through BH113) to a maximum depth of 5 feet below ground surface (bgs) or refusal for collection of one soil sample from the interval exhibiting the greatest environmental impact based on field screening observations or the mid-depth interval if no evidence of environmental impact was observed.

- Analysis of soil samples for 3 metals (arsenic, cadmium, and lead), DRO, RRO, and PAHs.

There was one deviation from the planned scope of work based on Property conditions: based on the shallow depth of bedrock, there was an insufficient amount of soil recovered in boring BH112, to collect a soil sample. There were no other deviations from the approved sampling plan, and it is our opinion the deviation did not significantly impact the objectives of this Supplemental Phase II ESA. Sample locations are shown on **Figure 3**.

4.0 FIELD SAMPLING PROGRAM

4.1 PRELIMINARY FIELD ACTIVITIES

4.1.1 Health and Safety

A site-specific health and safety plan was prepared to describe field sampling activity safety protocols for Stantec employees engaged in the project. At the start of each day of field activities, a safety meeting was held, and safety protocols were reviewed.

4.1.2 Utility Clearance

Prior to conducting fieldwork, the Washington State Utility Notification Center was contacted to mark the location of public utilities for the Property. In addition, a private utility locating service provider, Geophysical Survey LLC (Geophysical Survey) of Kennewick, Washington, was contracted to mark any subsurface utilities or structures within the planned investigation areas at the Property using a GSSI SIR© 4000 ground penetrating radar controller and 350-megahertz antenna, a Geonics EM-61 MKII metal locator with a Trimble Pro6H GNSS receiver for mapping anomalies with sub-foot accuracy, and an electromagnetic line locating transmitter.

4.2 SUBSURFACE ASSESSEMENT

The field assessment activities were performed in accordance with the sampling plan and field methods outlined in the “Proposal for Supplemental Phase II Environmental Site Assessment” (Stantec 2021a).

4.2.1 Soil Sampling

On June 8, 2021, Stantec directed the advancement of 13 borings (BH100–BH113) by Environmental West Exploration, Inc. of Spokane, Washington, a licensed Washington State driller. Borings were advanced using direct push technology (GeoProbe® 5400 drill rig). One boring was drilled to the target depth of 5 feet bgs while the remainder of the borings were advanced to depths of 0–4.25-feet bgs where refusal was encountered at bedrock. Groundwater was not encountered in any of the borings during drilling.

Soil samples from direct push borings were obtained from a clear acetate liner inserted into the hollow stainless-steel drill rod and driving the rod into the subsurface using a hydraulically driven hammer. The collected soil was continuously logged by a Stantec geologist for lithologic description using the Unified Soil Classification System and screened for visual/olfactory observations and for VOCs using a photoionization detector (PID) equipped with a 10.6 electron-volt lamp. Other distinctive visual characteristics, such as staining and odors, were also observed and noted for each sample interval. The soil classification, physical characteristics, PID readings, and soil sampling intervals are documented in the boring logs provided in **Appendix A**.

Soil samples selected for laboratory analysis were placed into laboratory-supplied containers and submitted under chain-of-custody to Pace Analytical in Mt. Juliet, Tennessee for the following analyses:

- Metals (arsenic, cadmium, lead) using US Environmental Protection Agency (EPA) Method 6020;
- Leachable lead using EPA Methods 1311 and 6020:
- DRO and RRO using method Northwest Total Petroleum Hydrocarbons for DRO and RRO (NWTPH-Dx); and,
- PAHs using EPA Method 8270E-Selective Ion Monitoring (SIM).

4.2.2 Quality Control Sampling

The following quality control samples were collected and analyzed to provide information on precision, accuracy, representativeness, comparability, and completeness of the data generated:

- Two field duplicate samples (DUP01 and DUP02) were analyzed for the same parameters as their parent samples, BH101 (1.0–2.0 feet) and BH106 (2.5–3.5 feet), respectively.
- One matrix spike/matrix spike duplicate sample was analyzed for the same parameters as its parent sample, BH103 (1.5–2.5 feet).
- One equipment blank sample (designated ER01) was collected by pouring deionized water over the decontaminated drill rod into laboratory-supplied bottles and analyzed for the full analytical suite.

4.3 INVESTIGATION DERIVED WASTE

Soil cuttings generated during the subsurface assessment were collected in a 55-gallon drum temporarily stored on the Property pending laboratory analysis and waste characterization. Once the soil cuttings have been profiled with the waste disposal contractor, the drum will be collected and hauled offsite to a permitted facility for disposal.

5.0 FIELD INVESTIGATION RESULTS

5.1 SITE GEOLOGY

The depths of the soil borings ranged from 0.25-foot in boring BH112 to 5.0-feet bgs in boring BH113. In general, soils encountered in the borings consisted of silty sand, with gravel, except borings BH112, which consisted of concrete slab placed directly on top of basalt bedrock. There was no field evidence of contamination (i.e., petroleum odors/staining, elevated PID readings) observed in soil samples from the borings except for a slight sheen in boring BH101 at a depth of 0.5–2.0-foot bgs. Based on investigations by Stantec at other sites in this general area of Spokane, it is suspected that the unconsolidated materials overlying bedrock at the Property may be fill. Anthropogenic materials, such as bricks, concrete rubble, or refuse, were noted in Property soils providing evidence of the unconsolidated materials origin. Brick fragments and glass were noted in borings BH102–BH104, BH106, and BH113. The observed soil types are described in more detail on the boring logs provided in **Appendix A**.

5.2 SITE HYROGEOLOGY

Groundwater was not encountered in the borings to the maximum depth explored of 5 feet bgs.

5.3 SOIL QUALITY

Thirteen primary soil samples were collected from borings BH100–BH113. The soil samples were screened against MTCA Method A CULs and the MTCA Method B Non-Cancer CULs for reference (Ecology 2021). The soil analytical data are presented in **Table 2**, and the detected concentrations that exceed MTCA Method A CULs and respective sample locations are shown on **Figure 4**. Laboratory reports are provided in **Appendix B**.

Table 5.3 – Soil Quality Findings

Analyte	Total Samples Analyzed (% and Frequency of Detections)	Range of Detected Concentrations	Natural background concentrations for metals in the Spokane Basin[1]	MTCA Method A CUL	Concentrations Exceeding the MTCA Method A CUL (% and Frequency of Detections)
Metals (milligrams per kilogram [mg/kg])					
Arsenic	100% (13/13)	3.3–23.3	1.13–10.32	20	15% (2/13)
Cadmium	100% (13/13)	0.113–10.4	0.13–0.69	2	8% (1/13)
Lead	100% (13/13)	14.6–6,990	6.75–16	250	31% (4/13)
Petroleum Hydrocarbons (mg/kg)					
DRO	31% (4/13)	5.41–81.7	n/a	2,000	0% (0/13)
RRO	100% (13/13)	40.2–4,890	n/a	2,000	46% (6/13)
Polycyclic Aromatic Hydrocarbons (mg/kg)					
Benzo(a)pyrene	100% (13/13)	0.00709–0.428	n/a	0.1	77% (10/13)
Total TEQ[2]	100% (13/13)	0.0102-1.56	n/a	0.1	85% (11/13)

- Metals were identified at concentrations that exceed the MTCA Method A CULs in the northwest corner of the gravel lot in borings BH102–BH104 and in boring BH101 beneath the workshop building. Lead was detected in each of the soil samples from these borings in addition to arsenic and cadmium in the boring BH102.
- RRO was detected in six borings advanced in the gravel lot at concentrations that exceed the MTCA Method A CUL.

[1] Natural Background Soil Metals Concentrations in Washington State (Department of Ecology, Publication 94-115, October 1994). This Ecology document contains information on the natural background concentrations of metals in surficial soil throughout Washington State. The MTCA (Washington Administrative Code [WAC] 173-340-200) defines natural background as "…concentration of hazardous substances consistently present in the environment which has not been influenced by localized human activities." The natural background metals concentrations for the Spokane Basin are considered in this report.

[2] Per WAC 173-340-708(8)(e), the toxicity of environmental samples containing mixtures of carcinogenic PAHs was evaluated by calculating TEQ concentrations per Ecology's published guidance *Evaluating the Human Health Toxicity of cPAHs Using Toxicity Equivalency Factors* (Ecology 2015). The total TEQs for the PAH mixture in each sample were compared to the MTCA Method A CUL for benzo(a)pyrene, the reference chemical because its toxicity is well characterized.

- Benzo(a)pyrene and total toxicity equivalency quotient (TEQ) PAHs were detected in soil across the site except boring BH110 located on the east portion of the Property and BH113 collected beneath the garage building.
- Calculation of diagnostic ratios between select PAHs (provided as **Appendix C**) indicate the PAHs present in these samples are likely from pyrogenic sources, which arise from the incomplete combustion of fossil fuels and organic matter and which can be dispersed throughout shallow soils in urban areas from sources such as motor vehicle exhaust or emissions from coal and wood burning furnaces. The diagnostic ratios for PAHs in the soil samples were not indicative of "petrogenic" sources, which are associated with releases of crude oil or refined crude oil products, such as gasoline and heating oil. The pyrogenic PAHs found at the Property are commonly associated with fill materials in urban settings, and their ubiquitous presence within the soil samples is indirect evidence for the unconsolidated materials at the Property being fill.

5.3.1 Toxicity Characteristic Leaching Procedure

The lead concentration in nine soil samples from borings BH101, BH102, BH103, BH104, BH106, BH107, BH111 and BH113 exceeded 100 milligrams per kilogram. Each of these samples was additionally tested using the Toxicity Characteristic Leaching Procedure (EPA Method 1311) to evaluate whether soils might require designation as a characteristic hazardous waste. Leachable lead concentrations in all nine samples were below 5 milligrams per liter and therefore Property soils are designated as a solid waste for disposal purposes.

5.4 DATA VALIDATION RESULTS

The data quality objective for this investigation was for the analytical data to be reproducible and of an acceptable quality to allow for comparison with the applicable screening criteria for the project. The data quality review is provided in **Appendix D**. Based on the data quality review, the results indicate that the dataset is acceptable and usable for the purposes of this investigation.

6.0 CONCLUSIONS

The following conclusions are based on the primary objectives listed in **Section 3.0**.

- With the exception of borings BH08 and BH110, the September 2020 and June 2021 data indicate that soils across the southern portion of the Property in the gravel lot contain elevated concentrations of metals (arsenic, cadmium and lead), RRO and PAHs at concentrations that are greater than the MTCA Method A CULs. Metals contaminated soils appear to be located in the northwest portion of the gravel yard and in the area fronting the workshop. The data indicate that the distribution of metals, RRO and PAH contaminated soils range from ground surface to an approximate depth of 3.5 feet bgs.

- The analytical data from borings BH100 and BH101 indicate that soils beneath the workshop building are contaminated with metals, RRO and PAHs. Boring BH113 was advanced beneath the garage building adjoining and to the east of the workshop and none of the detected constituents exceed the applicable MTCA Method A CULs.

- Lead contaminated soils may be disposed of as solid (non-hazardous) waste based on the toxicity characteristic leaching procedure (TCLP) analysis.

7.0 RECOMMENDATIONS

Based on the findings of the September 2020 Phase II ESA and June 2021 Supplemental Phase II ESA, Stantec makes the following recommendations:

- The data for the analytes for which concentrations exceed MTCA Method A CULs (see **Section 5.3**) are reportable by the Property owner to Ecology within 90 days of the date of this report, as required by WAC 173-340-300. Ecology will then perform an Initial Investigation, which includes a review of available data for the Property, and then potentially add the Property to the Confirmed and Suspected Contaminated Sites List, which is a database of sites that are undergoing cleanup and sites that are awaiting further investigation and/or cleanup.

8.0 LIMITATIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

The opinions in this report can only be relied upon as they relate to the condition of the portion of the identified property that was assessed at the time the work was conducted. Activities at the property subsequent to Stantec's assessment may have significantly altered the property's condition. Stantec cannot comment on other areas of the property that were not assessed.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition. This report should not be construed as legal advice.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

This report is limited by the following:

- Stantec spent only a limited amount of time on the property, and thus is not aware of any activities conducted on the property prior to or following the site visit.
- The investigation was limited to the analytical program specifically outlined in this report.
- The subsurface investigation was based on borehole locations and conditions may vary between boreholes.

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures should be confirmed and Stantec assumes no liability for damage to them.

The conclusions are based on the site conditions encountered by Stantec at the time the work was performed at the specific testing and/or sampling locations, and conditions may vary among sampling

locations. Factors such as areas of potential concern identified in previous studies, site conditions (e.g., utilities) and cost may have constrained the sampling locations used in this assessment. In addition, analysis has been carried out for only a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire site. As the purpose of this report is to identify site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the site is beyond the scope of this assessment.

Should additional information become available which differs significantly from our understanding of conditions presented in this report, Stantec specifically disclaims any responsibility to update the conclusions in this report.

9.0 REFERENCES

Ecology. 1994. "Natural Background Soil Metals Concentrations in Washington State." Publication 94-115, October.

—. 2015. "Evaluating the Human Health Toxicity of Carcinogenic PAHs (cPAHs) Using Toxicity Equivalency Factors (TEFs)." *Implementation Memorandum #10.* Publication No. 15-09-049, April 20.

—. 2021. *Cleanup Levels and Risk Calculation (CLARC) Data Tables.* February. https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC.

Stantec. 2020a. "Master Quality Assurance Project Plan (Revision 0) for Implementation of U.S. EPA Browfields Assesment Grants at Petroleum and Hazardous Substance Sites." *Cooperative Agreement No. BF-01J65801.* March 3.

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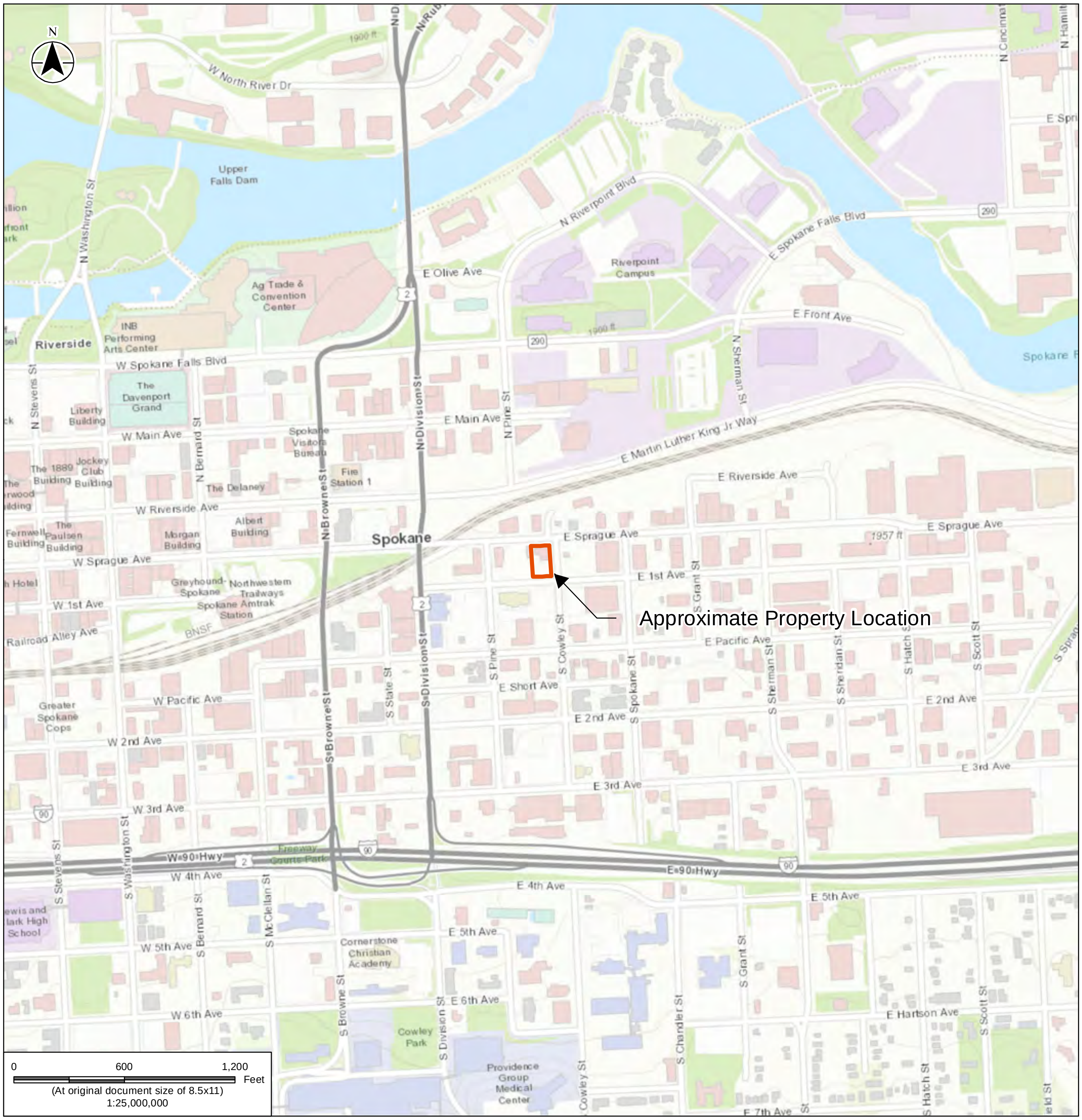
—. 2021b. "Proposal for Supplemental Phase II Environmental Site Assessment, Spokane Roofing, 130 East Sprague Ave, Spokane Washington." April 29.

FIGURES



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Approximate Property Boundary

Stantec

Project Location
Spokane Roofing Company
130 East Sprague Avenue, Spokane, WA

Client/Project 185751443
Spokane Roofing Company
Supplemental Phase II Environmental Site Assessment

Title
Property Location

Figure No.
1

Notes
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Data Sources: Spokane County GIS
3. Background: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Stantec

Legend

Approximate Property Boundary

Notes

1. Coordinate System: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet

2. Data Sources: Spokane County GIS

3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Project Location

Spokane Roofing Company
130 East Sprague Avenue, Spokane, WA

Client/Project 185751443

Spokane Roofing Company
Supplemental Phase II Environmental Site Assessment

Title

Property Layout and Vicinity Map

Figure No.

2

Stantec

Legend

- Soil Sampling Location (Stantec 2021)
- Previous Soil Sampling Location (Stantec 2020)
- Approximate Property Boundary

Notes

1. Coordinate System: NAD 1983 HARN StatePlane Washington North FIPS 4601 Feet
2. Data Sources: Spokane County GIS
3. Background: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Project Location
Spokane Roofing Company
130 East Sprague Avenue, Spokane, WA

Client/Project 185751443
Spokane Roofing Company
Supplemental Phase II Environmental Site Assessment

Title
September 2020 and June 2021 - Soil Sample Location Map

Figure No.
3

BH100	2.0 - 3.0ft 6/8/2021
Total TEQ	0.111

BH101		1.0 - 2.0ft 6/8/2021		DUP01 6/8/2021	
Lead	Lead (TCLP)	141 J	0.225	321 J	0.100U
Benzo(a)pyrene		0.126 J		0.0451 J	
Total TEQ		0.171		0.0622	

BH102		2.5 - 3.5ft 6/8/2021
Arsenic		23.3
Cadmium		10.4
Lead	Lead (TCLP)	6,990 / 1.18
Benzo(a)pyrene		0.213
Total TEQ		0.323

BH103		1.5 - 2.5ft 6/8/2021
Lead	Lead (TCLP)	359 J+ / 0.557
TPH - Residual Range Organics		4,890
Benzo(a)pyrene		0.242 J+
Total TEQ		0.326

BH104		0.5 - 1.0ft 6/8/2021
Lead	Lead (TCLP)	1,590 / 0.100U
TPH - Residual Range Organics		2,260
Benzo(a)pyrene		0.142
Total TEQ		0.195

BH105	0 - 1.0ft 6/8/2021
Benzo(a)pyrene	0.406
Total TEQ	0.550

BH106	2.5 - 3.5ft 6/8/2021	DUP02 6/8/2021
TPH - Residual Range Organics	3,050 J	2050 J
Benzo(a)pyrene	1.18 J	0.341 J
Total TEQ	1.56	0.455

BH111	0.75 - 1.75ft 6/8/2021
Benzo(a)pyrene	0.530
Total TEQ	0.707

BH108	0.5 -1.5ft 6/8/2021
TPH - Residual Range Organics	5,010
Benzo(a)pyrene	0.148
Total TEQ	0.197

BH109	1.5 -2.5ft 6/8/2021
TPH - Residual Range Organics	2,230
Benzo(a)pyrene	0.158
Total TEQ	0.215

BH107	2.0 - 3.0ft 6/8/2021
Arsenic	21.8
TPH - Residual Range Organics	4,050 J
Benzo(a)pyrene	0.428
Total TEQ	0.581

Stantec

Legend

- Soil Sampling Location (Stantec 2021)
- Previous Soil Sampling Location (Stantec 2020)
- Soil Parameters Tested Were Below Guidelines
- One or More Soil Parameters Tested Exceed Guidelines
- Concentration Exceeds MTCA Method A Cleanup Levels
- Approximate Property Boundary

Sample ID / Sample Depth (feet)/ Sample Date

BH104		0.5 - 1.0ft 6/8/2021
Lead	Lead (TCLP)	1,590 / 0.100U
TPH - Residual Range Organics		2,260
Benzo(a)pyrene		0.142
Total TEQ		0.195

Parameter / Concentration in mg/kg

Washington Department of Ecology
Model Toxics Control Act Cleanup Levels

Parameter	Units	MTCA Method A CUL
Cadmium	mg/kg	2
Arsenic	mg/kg	20
Lead / Lead (TCLP)	mg/kg	250 / nv
Benzo(a)pyrene	mg/kg	0.1
TPH - Residual Range Organics	mg/kg	2,000
Total TEQ	mg/kg	0.1

Notes

1. Coordinate System: NAD 1983 UTM Zone 11N
2. Orthoimagery: Google (7/18/2019). [Spokane, WA]. Retrieved May 18, 2020, from https://earth.google.com/web/@47.65696462,-117.40860040,798.42005677
3. mg/kg = milligrams per kilogram
4. J = The reported result is an estimated value.
5. J+ = The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
6. U = The analyte was not detected above the method detection limit.
7. nv = No standard/guideline value.
8. TCLP = Toxicity Characteristic Leaching Procedure
9. TEQ = Toxicity Equivalence Concentration
10. TEF = Toxicity Equivalence Factor
11. TEQ Values = cPAH concentration x TEF
12. TPH = Total Petroleum Hydrocarbons
13. MTCA CULs = Washington Department of Ecology Model Toxics Control Act Cleanup Levels
14. Method A = Method A Unrestricted Land Use - Soil (February 2021)

Project Location

Spokane Roofing Company
130 East Sprague Avenue, Spokane, WA

Client/Project 185751443

Spokane Roofing Company
Supplemental Phase II Environmental Site Assessment

Title

Summary of June 2021 Soil Analytical Results

Figure No.

4

TABLES

Table 1
Summary of September 2020 Soil Analytical Results
Phase II Environmental Site Assessment
130 E Sprague Avenue
Spokane, Washington

Sample Location		MTCA CULs	SR-BH01		SR-BH02	SR-BH03	SR-BH04	SR-BH05	SR-BH06	SR-BH07	SR-BH08	SR-BH09	SR-BH10	
Sample Date			17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20
Sample ID			SR-BH01SO 1.5-2.0	SR-FD01SO	SR-BH02SO 0.5-1.0	SR-BH03SO 0.5-1.0	SR-BH04SO 0.5-1.0	SR-BH05SO 2-2.5	SR-BH06SO 2-3	SR-BH07SO 0.5-1.0	SR-BH08SO 0.5-1.0	SR-BH09SO 2-3	SR-BH10SO 3-3.5	SR-BH10SO 6.5-7
Sample Depth		Method A	1.5 - 2 ft	1.5 - 2 ft	0.5 - 1 ft	0.5 - 1 ft	0.5 - 1 ft	2 - 2.5 ft	2 - 3 ft	0.5 - 1 ft	0.5 - 1 ft	2 - 3 ft	3 - 3.5 ft	6.5 - 7 ft
Sample Type	Units	A	Primary	Field Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Metals (6020B, 7471B)														
Arsenic	mg/kg	20	**8.51**	**6.38**	**9.78**	**5.82**	**4.69**	**11.4**	**24.9**	**7.16**	**2.18**	**3.63**	**6.36**	**6.47**
Barium	mg/kg	n/v	**66.6 J**	**44.0 J**	**177**	**127**	**94.1**	**132**	**572**	**83.4**	**92.8**	**55.8**	**75.8**	**47.8**
Cadmium	mg/kg	2	<0.415	<0.415	**0.927 J**	**0.485 J**	<0.413	<0.463	**14.8**	**0.925 J**	<0.435	<0.413	<0.414	<0.415
Chromium	mg/kg	2,000	**11.9**	**8.88**	**20.0**	**238**	**11.0**	**10.8**	**89.2**	**16.9**	**8.72**	**10.6**	**11.4**	**8.67**
Lead	mg/kg	250	**24.1**	**17.8**	**229**	**161**	**16.3**	**18.1**	**19,100**	**85.7**	**21.2**	**23.2**	**31.9**	**26.6**
Mercury	mg/kg	2	<0.0184	<0.0184	**0.0898**	**0.219**	<0.0183	**0.0275 J**	**1.13**	**0.123**	**0.0248 J**	<0.0183	<0.0184	<0.0184
Selenium	mg/kg	n/v	<1.03	<1.03	<1.04	<1.04	<1.03	<1.15	<1.16	<1.04	<1.08	<1.03	<1.03	<1.03
Silver	mg/kg	n/v	<0.218	<0.218	**0.294 J**	<0.219	<0.217	<0.243	**8.58**	<0.218	<0.228	<0.217	<0.217	<0.218
Petroleum Hydrocarbons (NWTPH)														
TPH - Gasoline Range Organics (GRO)	mg/kg	30	**7.18**	**0.604**	**2.05**	**0.0620 J**	<0.880	**0.0506 J**	<0.0388	**1.08 J**	<0.987	<0.879	<0.892	<0.887
TPH - Diesel Range Organics (DRO)	mg/kg	2,000	**2.62 J**	**5.51**	**11.3 J**	**7.43**	<5.42	**6.37**	**113 J**	**352 J+**	**159**	<67.6	<67.8	<68.0
TPH - Residual Range Organics (RRO)	mg/kg	2,000	**10.2 J**	**23.1**	**93.5**	**24.9**	**48.3**	**10.1 J**	**754**	**2,870 J+**	**446**	**526**	**497 J**	**594**
Polycyclic Aromatic Hydrocarbons (8270E-SIM)														
Acenaphthene	mg/kg	n/v	<0.00214	<0.00214	<0.00215	<0.00215	**0.00525 J**	<0.00238	**0.0171**	<0.0214	<0.00224	**0.00709**	**0.00299 J**	<0.0214
Acenaphthylene	mg/kg	n/v	<0.00221	<0.00221	<0.00222	<0.00222	<0.00220	<0.00246	<0.00247	<0.0221	<0.00231	<0.00220	<0.00220	<0.0221
Anthracene	mg/kg	n/v	<0.00235	<0.00235	**0.00506 J**	**0.00562 J**	**0.0141**	<0.00262	**0.0523**	**0.0958**	**0.00650**	**0.0279**	**0.0216**	**0.0642**
Benzo(a)anthracene	mg/kg	n/v	**0.00380 J**	**0.00244 J**	**0.0243**	**0.0488**	**0.0657**	**0.0196**	**0.182**	**0.189**	**0.0273**	**0.124**	**0.0745**	**0.172**
Benzo(a)pyrene	mg/kg	0.1	**0.00460 J**	**0.00297 J**	**0.0292**	**0.0635**	**0.0891**	**0.0218**	**0.251**	**0.348**	**0.0349**	**0.220**	**0.106**	**0.243**
Benzo(b)fluoranthene	mg/kg	n/v	**0.00733**	**0.00472 J**	**0.0458**	**0.0988**	**0.125**	**0.0215**	**0.314**	**0.449**	**0.0527**	**0.234**	**0.122**	**0.299**
Benzo(g,h,i)perylene	mg/kg	n/v	**0.00527 J**	**0.00457 J**	**0.0291**	**0.0572**	**0.0936**	**0.0152**	**0.177**	**0.455**	**0.0497**	**0.176**	**0.154**	**0.221**
Benzo(k)fluoranthene	mg/kg	n/v	<0.00220	<0.00220	**0.0140**	**0.0244**	**0.0401**	**0.00640 J**	**0.0778**	**0.145**	**0.0152**	**0.0728**	**0.0353**	**0.0918**
Chloronaphthalene, 2-	mg/kg	n/v	<0.00476	<0.00476	<0.00479	<0.00479	<0.00475	<0.00531	<0.00533	<0.0478	<0.00499	<0.00474	<0.00475	<0.0476
Chrysene	mg/kg	n/v	**0.00366 J**	**0.00278 J**	**0.0274**	**0.0541**	**0.0655**	**0.0204**	**0.228**	**0.217**	**0.0300**	**0.119**	**0.0827**	**0.168**
Dibenzo(a,h)anthracene	mg/kg	n/v	<0.00176	<0.00176	**0.00582 J**	**0.0116**	**0.0181**	**0.00376 J**	**0.0404**	**0.0782**	**0.0109**	**0.0361**	**0.0223**	**0.0406 J**
Fluoranthene	mg/kg	n/v	**0.00729**	**0.00394 J**	**0.0474**	**0.0948**	**0.122**	**0.0167**	**0.303**	**0.287**	**0.0490**	**0.231**	**0.120**	**0.339**
Fluorene	mg/kg	n/v	<0.00210	<0.00210	<0.00211	<0.00211	**0.00268 J**	<0.00234	**0.0121**	<0.0210	<0.00220	**0.00525 J**	**0.00369 J**	<0.0210
Indeno(1,2,3-cd)pyrene	mg/kg	n/v	**0.00384 J**	**0.00306 J**	**0.0207**	**0.0431**	**0.0673**	**0.0124**	**0.152**	**0.259**	**0.0323**	**0.128**	**0.0838**	**0.166**
Methylnaphthalene, 1-	mg/kg	n/v	<0.00459	<0.00459	<0.00462	**0.00667 J**	<0.00457	<0.00512	**0.0298**	<0.0460	<0.00481	<0.00457	<0.00458	<0.0459
Methylnaphthalene, 2-	mg/kg	n/v	<0.00437	<0.00437	**0.00594 J**	**0.00868 J**	**0.00490 J**	<0.00486	**0.0567**	<0.0438	<0.00458	<0.00434	<0.00436	<0.0436
Naphthalene	mg/kg	5	<0.00417	<0.00417	**0.00626 J**	**0.00838 J**	**0.00481 J**	<0.00465	**0.0598**	<0.0418	<0.00437	<0.00415	<0.00416	<0.0417
Phenanthrene	mg/kg	n/v	**0.00330 J**	**0.00263 J**	**0.0235**	**0.0278**	**0.0494**	**0.00455 J**	**0.165**	**0.130**	**0.0221**	**0.0641**	**0.0339**	**0.163**
Pyrene	mg/kg	n/v	**0.00688**	**0.00606 J**	**0.0525**	**0.110**	**0.135**	**0.0379**	**0.299**	**0.352**	**0.0624**	**0.269**	**0.135**	**0.356**
Toxicity Equivalency Concentration (TEQ)	**TEF**													
Benzo(a)anthracene	0.1		0.00038	0.000244	0.00243	0.00488	0.00657	0.00196	0.0182	0.0189	0.00273	0.0124	0.00745	0.0172
Benzo(a)pyrene	1		0.0046	0.00297	0.0292	0.0635	0.0891	0.0218	0.251	0.348	0.0349	0.22	0.106	0.243
Benzo(b)fluoranthene	0.1		0.000733	0.000472	0.00458	0.00988	0.0125	0.00215	0.0314	0.0449	0.00527	0.0234	0.0122	0.0299
Benzo(k)fluoranthene	0.1		0	0	0.0014	0.00244	0.00401	0.00064	0.00778	0.0145	0.00152	0.00728	0.00353	0.00918
Chrysene	0.01		0.0000366	0.0000278	0.000274	0.000541	0.000655	0.000204	0.00228	0.00217	0.0003	0.00119	0.000827	0.00168
Dibenzo(a,h)anthracene	0.1		0	0	0.000582	0.00116	0.00181	0.000376	0.00404	0.00782	0.00109	0.00361	0.00223	0.00406
Indeno(1,2,3-cd)pyrene	0.1		0.000384	0.000306	0.00207	0.00431	0.00673	0.00124	0.0152	0.0259	0.00323	0.0128	0.00838	0.0166
Sum of cPAHs	mg/kg	0.1	0.00613	0.00402	0.0405	0.0867	0.121	0.028	0.330	0.462	0.0490	0.281	0.141	0.322
Volatile Organic Compounds (8260D)														
Acetone	mg/kg	n/v	**0.299 J+**	**0.430**	**0.207**	**0.0791**	**0.0530**	<0.691	**0.325**	**0.0525**	**0.207**	**0.0741**	**0.0283 J**	**0.0597**
Acrylonitrile	mg/kg	n/v	<0.00207	<0.00206	<0.00208	<0.00253	<0.00206	<0.0673	<0.00292	<0.00207	<0.00216	<0.00205	<0.00206	<0.00227
Benzene	mg/kg	0.03	**0.000708 J**	**0.000565 J**	**0.00215**	**0.000555 J**	**0.000854 J**	<0.0125	<0.000541	<0.000385	**0.000478 J**	<0.000381	<0.000382	**0.000464 J**
Bromobenzene	mg/kg	n/v	<0.000281	<0.000281	<0.000283	<0.000345	<0.000280	<0.00918	<0.000397	<0.000282	<0.000295	<0.000280	<0.000280	<0.000310
Bromodichloromethane	mg/kg	n/v	<0.000741	<0.000741	<0.000745	<0.000909	<0.000738	<0.0241	<0.00105	<0.000743	<0.000777	<0.000737	<0.000739	<0.000815
Bromoform (Tribromomethane)	mg/kg	n/v	<0.000434	<0.000433	<0.000436	<0.000532	<0.000432	<0.0141	<0.000611	<0.000435	<0.000454	<0.000431	<0.000432	<0.000476
Bromomethane (Methyl bromide)	mg/kg	n/v	<0.00120	<0.00120	<0.00120	<0.00147	<0.00119	<0.0391	**0.00193 J**	<0.00120	<0.00125	<0.00119	<0.00119	<0.00132
Butylbenzene, n-	mg/kg	n/v	<0.000264	<0.000264	<0.000265	<0.000324	<0.000263	**0.00882 J**	<0.000372	<0.000265	<0.000276	<0.000262	<0.000263	<0.000290
Butylbenzene, sec- (2-Phenylbutane)	mg/kg	n/v	<0.000206	<0.000205	<0.000207	<0.000252	<0.000205	<0.00671	<0.000290	<0.000206	<0.000215	<0.000204	<0.000205	<0.000226
Butylbenzene, tert-	mg/kg	n/v	<0.000211	<0.000211	<0.000212	<0.000258	<0.000210	<0.00687	<0.000298	<0.000211	<0.000221	<0.000209	<0.000210	<0.000232
Carbon Tetrachloride (Tetrachloromethane)	mg/kg	n/v	<0.000254	<0.000254	<0.000255	<0.000312	<0.000253	<0.00827	<0.000357	<0.000254	<0.000266	<0.000252	<0.000253	<0.000279
Chlorobenzene (Monochlorobenzene)	mg/kg	n/v	<0.000196	<0.000196	<0.000197	<0.000241	<0.000196	<0.00640	<0.000277	<0.000197	<0.000206	<0.000195	<0.000196	<0.000216
Chloroethane (Ethyl Chloride)	mg/kg	n/v	<0.00102	<0.00102	<0.00103	<0.00125	<0.00102	<0.0333	<0.00144	<0.00103	<0.00107	<0.00102	<0.00102	<0.00112
Chloroform (Trichloromethane)	mg/kg	n/v	<0.00105	<0.00105	<0.00106	<0.00130	<0.00105	<0.0344	<0.00149	<0.00106	<0.00110	<0.00105	<0.00105	<0.00115
Chloromethane	mg/kg	n/v	<0.000665 UJ	<0.000664	<0.000668	<0.000815	<0.000662	<0.0217	<0.000938	<0.000666	<0.000697	<0.000661	<0.000663	<0.000731

Table 1
Summary of September 2020 Soil Analytical Results
Phase II Environmental Site Assessment
130 E Sprague Avenue
Spokane, Washington

Sample Location		MTCA CULs	SR-BH01		SR-BH02	SR-BH03	SR-BH04	SR-BH05	SR-BH06	SR-BH07	SR-BH08	SR-BH09	SR-BH10	
Sample Date			17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20	17-Sep-20
Sample ID			SR-BH01SO 1.5-2.0	SR-FD01SO	SR-BH02SO 0.5-1.0	SR-BH03SO 0.5-1.0	SR-BH04SO 0.5-1.0	SR-BH05SO 2-2.5	SR-BH06SO 2-3	SR-BH07SO 0.5-1.0	SR-BH08SO 0.5-1.0	SR-BH09SO 2-3	SR-BH10SO 3-3.5	SR-BH10SO 6.5-7
Sample Depth		Method A	1.5 - 2 ft	1.5 - 2 ft	0.5 - 1 ft	0.5 - 1 ft	0.5 - 1 ft	2 - 2.5 ft	2 - 3 ft	0.5 - 1 ft	0.5 - 1 ft	2 - 3 ft	3 - 3.5 ft	6.5 - 7 ft
Sample Type	Units	A	Primary	Field Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Chlorotoluene, 2-	mg/kg	n/v	<0.000230	<0.000230	<0.000231	<0.000283	<0.000229	<0.00751	<0.000325	<0.000231	<0.000241	<0.000229	<0.000229	<0.000252
Chlorotoluene, 4-	mg/kg	n/v	<0.000707	<0.000706	<0.000710	<0.000867	<0.000704	<0.0231	<0.000997	<0.000709	<0.000741	<0.000703	<0.000705	<0.000777
Dibromo-3-Chloropropane, 1,2- (DBCP)	mg/kg	n/v	<0.00194	<0.00194	<0.00195	<0.00239	<0.00193	<0.0633	<0.00274	<0.00195	<0.00204	<0.00193	<0.00194	<0.00214
Dibromochloromethane	mg/kg	n/v	<0.000229	<0.000229	<0.000230	<0.000281	<0.000228	<0.00747	<0.000323	<0.000230	<0.000240	<0.000228	<0.000228	<0.000251
Dibromomethane (Methylene Bromide)	mg/kg	n/v	<0.000358	<0.000358	<0.000360	<0.000439	<0.000356	<0.0117	<0.000505	<0.000359	<0.000375	<0.000356	<0.000357	<0.000394
Dichlorobenzene, 1,2-	mg/kg	n/v	<0.000435	<0.000434	<0.000437	<0.000534	<0.000433	<0.0141	<0.000612	<0.000436	<0.000455	<0.000432	<0.000433	<0.000478
Dichlorobenzene, 1,3-	mg/kg	n/v	<0.000614	<0.000613	<0.000617	<0.000753	<0.000611	<0.0200	<0.000865	<0.000615	<0.000643	<0.000610	<0.000612	<0.000675
Dichlorobenzene, 1,4-	mg/kg	n/v	<0.000849	<0.000848	<0.000853	<0.00104	<0.000845	<0.0277	<0.00120	<0.000851	<0.000889	<0.000844	<0.000847	<0.000933
Dichlorodifluoromethane (Freon 12)	mg/kg	n/v	<0.000293	<0.000293	<0.000295	<0.000360	<0.000292	<0.00956	<0.000414	<0.000294	<0.000308	<0.000292	<0.000293	<0.000323
Dichloroethane, 1,1-	mg/kg	n/v	<0.000274	<0.000274	<0.000275	<0.000336	<0.000273	<0.00894	<0.000387	<0.000275	<0.000287	<0.000272	<0.000273	<0.000302
Dichloroethane, 1,2-	mg/kg	n/v	<0.000460	<0.000460	<0.000463	<0.000564	<0.000458	<0.0151	<0.000649	<0.000461	<0.000482	<0.000458	<0.000459	<0.000506
Dichloroethene, 1,1-	mg/kg	n/v	<0.000363	<0.000363	<0.000365	<0.000445	<0.000361	<0.0118	<0.000512	<0.000364	<0.000380	<0.000361	<0.000362	<0.000400
Dichloroethene, cis-1,2-	mg/kg	n/v	<0.000486	<0.000486	<0.000488	<0.000596	<0.000484	<0.0159	<0.000686	<0.000487	<0.000509	<0.000483	<0.000484	<0.000535
Dichloroethene, trans-1,2-	mg/kg	n/v	<0.000511	<0.000511	<0.000514	<0.000627	<0.000509	<0.0167	<0.000721	<0.000513	<0.000536	<0.000508	<0.000510	<0.000562
Dichloropropane, 1,2-	mg/kg	n/v	<0.000168	<0.000168	<0.000169	<0.000206	<0.000167	<0.00547	<0.000237	<0.000168	<0.000176	<0.000167	<0.000167	<0.000184
Dichloropropane, 1,3-	mg/kg	n/v	<0.000230	<0.000230	<0.000231	<0.000283	<0.000229	<0.00751	<0.000325	<0.000231	<0.000241	<0.000229	<0.000229	<0.000252
Dichloropropane, 2,2-	mg/kg	n/v	<0.000383	<0.000383	<0.000385	<0.000471	<0.000382	<0.0125	<0.000541	<0.000385	<0.000402	<0.000381	<0.000382	<0.000422
Dichloropropene, 1,1-	mg/kg	n/v	<0.000383	<0.000383	<0.000385	<0.000471	<0.000382	<0.0125	<0.000541	<0.000385	<0.000402	<0.000381	<0.000382	<0.000422
Dichloropropene, cis-1,3-	mg/kg	n/v	<0.000435	<0.000434	<0.000437	<0.000534	<0.000433	<0.0141	<0.000612	<0.000436	<0.000455	<0.000432	<0.000433	<0.000478
Dichloropropene, trans-1,3-	mg/kg	n/v	<0.000690	<0.000690	<0.000694	<0.000847	<0.000687	<0.0225	<0.000974	<0.000692	<0.000723	<0.000686	<0.000688	<0.000759
Diisopropyl Ether (DIPE)	mg/kg	n/v	<0.000226	<0.000226	<0.000227	<0.000278	<0.000225	<0.00737	<0.000318	<0.000227	<0.000237	<0.000225	<0.000225	<0.000248
Ethanol	mg/kg	n/v	**0.0991 J+**	**0.0886 J**	**0.0504 UJ3**	<0.0615	<0.0499	<1.64	<0.0706	<0.0502	<0.0525	<0.0498	<0.0500	<0.0551
Ethyl Tert Butyl Ether	mg/kg	n/v	<0.000256	<0.000256	<0.000257	<0.000314	<0.000255	<0.00833	<0.000361	<0.000256	<0.000268	<0.000254	<0.000255	<0.000281
Ethylbenzene	mg/kg	6	<0.000307	<0.000307	<0.000308	<0.000376	<0.000305	<0.0100	<0.000433	<0.000308	<0.000321	<0.000305	<0.000306	<0.000337
Ethylene Dibromide (Dibromoethane, 1,2-)	mg/kg	0.005	<0.000256	<0.000256	<0.000257	<0.000314	<0.000255	<0.00833	<0.000361	<0.000256	<0.000268	<0.000254	<0.000255	<0.000281
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	mg/kg	n/v	<0.000350	<0.000350	<0.000352	<0.000429	<0.000348	<0.0114	<0.000493	<0.000351	<0.000367	<0.000348	<0.000349	<0.000384
Isopropylbenzene	mg/kg	n/v	<0.000435	<0.000434	<0.000437	<0.000534	<0.000433	<0.0141	<0.000612	<0.000436	<0.000455	<0.000432	<0.000433	<0.000478
Isopropyltoluene, p- (Cymene)	mg/kg	n/v	**0.00600 J**	**0.0190 J**	**0.000593 J**	<0.000256	<0.000208	**0.00859 J**	<0.000294	<0.000209	<0.000219	<0.000207	<0.000208	<0.000229
Methyl Ethyl Ketone (MEK) (2-Butanone)	mg/kg	n/v	**0.00759 J+**	**0.00637 J**	**0.0114**	**0.00632 J**	**0.00722 J**	<0.156	**0.0129 J**	**0.00836 J**	**0.0583**	**0.00783 J**	<0.00477	**0.00602 J**
Methyl Isobutyl Ketone (MIBK)	mg/kg	n/v	<0.000971	<0.000971	<0.000977	<0.00119	<0.000967	<0.0317	<0.00137	**0.00213 J**	<0.00102	<0.000966	<0.000969	<0.00107
Methyl tert-butyl ether (MTBE)	mg/kg	0.1	<0.000358	<0.000358	<0.000360	<0.000439	<0.000356	<0.0117	<0.000505	<0.000359	<0.000375	<0.000356	<0.000357	<0.000394
Methylene Chloride (Dichloromethane)	mg/kg	0.02	<0.00102	<0.00102	<0.00103	<0.00125	<0.00102	<0.0333	<0.00144	<0.00103	<0.00107	<0.00102	<0.00102	<0.00112
Naphthalene	mg/kg	5	<0.00509	<0.00509	<0.00512	<0.00625	<0.00507	<0.167	<0.00718	<0.00511	<0.00534	<0.00506	<0.00508	<0.00560
Propylbenzene, n-	mg/kg	n/v	<0.000211	<0.000211	<0.000212	<0.000258	<0.000210	<0.00687	<0.000298	<0.000211	<0.000221	<0.000209	<0.000210	<0.000232
Styrene	mg/kg	n/v	<0.000228	<0.000228	<0.000229	<0.000280	<0.000227	<0.00744	<0.000322	<0.000229	<0.000239	<0.000227	<0.000227	<0.000250
Tert Amyl Methyl Ether	mg/kg	n/v	<0.000409	<0.000409	<0.000411	<0.000502	<0.000407	<0.0133	<0.000577	<0.000410	<0.000429	<0.000407	<0.000408	<0.000450
Tert-Butyl Alcohol	mg/kg	n/v	<0.00256	<0.00256	**0.00268 J**	**0.00588 J**	**0.00621**	<0.0833	<0.00361	**0.00598 J**	<0.00268	**0.00668**	<0.00255	**0.00676**
Tetrachloroethane, 1,1,1,2-	mg/kg	n/v	<0.000303	<0.000303	<0.000304	<0.000371	<0.000301	<0.00987	<0.000427	<0.000304	<0.000317	<0.000301	<0.000302	<0.000333
Tetrachloroethane, 1,1,2,2-	mg/kg	n/v	<0.000236	<0.000236	<0.000237	<0.000290	<0.000235	<0.00769	<0.000333	<0.000237	<0.000248	<0.000235	<0.000236	<0.000260
Tetrachloroethene (PCE)	mg/kg	0.05	<0.000332	<0.000332	<0.000334	<0.000408	<0.000331	<0.0108	<0.000468	<0.000333	<0.000348	<0.000330	<0.000331	<0.000366
Toluene	mg/kg	7	**0.0121 J**	**0.0244**	**0.00162 J**	<0.00154	<0.00125	<0.0411	<0.00177	<0.00126	<0.00132	<0.00125	<0.00125	<0.00138
Trichlorobenzene, 1,2,3-	mg/kg	n/v	<0.000313	<0.000313	<0.000315	<0.000383	<0.000312	<0.0102	<0.000442	<0.000314	<0.000328	<0.000311	<0.000312	<0.000344
Trichlorobenzene, 1,2,4-	mg/kg	n/v	<0.000397	<0.000397	<0.000399	<0.000486	<0.000395	<0.0129	<0.000560	<0.000398	<0.000416	<0.000394	<0.000396	<0.000436
Trichloroethane, 1,1,1-	mg/kg	2	<0.000378	<0.000378	<0.000380	<0.000464	<0.000377	<0.0123	**0.000626 J**	<0.000379	<0.000397	<0.000376	<0.000377	<0.000416
Trichloroethane, 1,1,2-	mg/kg	n/v	<0.000435	<0.000434	<0.000437	<0.000534	<0.000433	<0.0141	<0.000612	<0.000436	<0.000455	<0.000432	<0.000433	<0.000478
Trichloroethene (TCE)	mg/kg	0.03	<0.000205	<0.000204	<0.000206	<0.000251	<0.000204	<0.00667	<0.000288	<0.000205	<0.000214	<0.000203	<0.000204	<0.000225
Trichlorofluoromethane (Freon 11)	mg/kg	n/v	<0.000364	<0.000364	<0.000366	<0.000446	<0.000363	<0.0119	<0.000514	<0.000365	<0.000382	<0.000362	<0.000363	<0.000401
Trichloropropane, 1,2,3-	mg/kg	n/v	<0.000249	<0.000249	<0.000251	<0.000306	<0.000248	<0.00813	<0.000351	<0.000250	<0.000261	<0.000248	<0.000249	<0.000274
Trichlorotrifluoroethane (Freon 113)	mg/kg	n/v	<0.000436	<0.000435	<0.000438	<0.000535	<0.000434	<0.0143	<0.000615	<0.000437	<0.000457	<0.000433	<0.000434	<0.000479
Trimethylbenzene, 1,2,3-	mg/kg	n/v	<0.000293	<0.000293	<0.000295	<0.000360	<0.000292	**0.0324 J**	<0.000414	<0.000294	<0.000308	<0.000292	<0.000293	<0.000323
Trimethylbenzene, 1,2,4-	mg/kg	n/v	**0.000297 J**	**0.000408 J**	<0.000217	<0.000264	<0.000215	**0.0264 J**	<0.000304	<0.000216	<0.000226	<0.000215	<0.000215	<0.000237
Trimethylbenzene, 1,3,5-	mg/kg	n/v	<0.000272	<0.000272	<0.000273	<0.000334	<0.000271	<0.00887	<0.000383	<0.000273	<0.000285	<0.000270	<0.000271	<0.000299
Vinyl Chloride	mg/kg	n/v	<0.000231	<0.000231	<0.000232	<0.000284	<0.000230	<0.00753	<0.000326	<0.000232	<0.000242	<0.000230	<0.000231	<0.000255
Xylenes, Total	mg/kg	9	<0.00307 UB	<0.00307 UB	<0.00308 UB	<0.00376 UB	<0.000509	**0.0603 J**	<0.00433 UB	<0.00308 UB	<0.000536	<0.000508	<0.00306 UB	<0.000562

Notes:

MTCA CULs Washington Department of Ecology Model Toxics Control Act Cleanup Levels
A Method A Unrestricted Land Use - Soil (August 2020)
TPH-GRO CUL is 100 mg/kg when no benzene is present and the total of ethylbenzene, toluene a
xylene are less than 1% of the gasoline mixture. 30 mg/kg for all other gasoline mixtures.

6.5 Concentration exceeds the indicated standard A.
15.2 Measured concentration did not exceed the indicated standard.
<0.50 Non-detect value exceeds the criteria.
<0.03 Analyte was not detected at a concentration greater than the laboratory method detection limit.
Blank cell no screening level applies
cPAH Carcinogenic PAH
CUL Cleanup Level
mg/kg milligrams per kilogram
n/v No standard/guideline value.

] Total Petroleum Hydrocarbon
] Toxicity Equivalence Factor
] Toxicity Equivalence Concentration
TEQ = cPAH concentration x TEF
Soil results are reported on a dry-weight basis.

Data Validation Qualifiers:

. The reported result is an estimated value.
. The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
l Analyte is considered not detected due to the concentration detected in an associated blank.
l Indicates estimated non-detect.

Table 2
Summary of June 2021 Soil Analytical Results
Supplemental Phase II Environmental Site Assessment
130 East Sprague Avenue
Spokane, Washington

Sample Location		MTCA CULs		SR-BH100	SR-BH101		SR-BH102	SR-BH103	SR-BH104	SR-BH105	SR-BH106		SR-BH107	SR-BH108	SR-BH109	SR-BH110	SR-BH111	SR-BH113
Sample Date				8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21	8-June-21
Sample ID				SR-BH100SO 2.0-3.0	SR-BH101SO 1.0-2.0	SR-DUP01	SR-BH102SO 2.5-3.5	SR-BH103SO 1.5-2.5	SR-BH104SO 0.5-1.0	SR-BH105SO 0-1.0	SR-BH106SO 2.5-3.5	SR-DUP02	SR-BH107SO 2.0-3.0	SR-BH108SO 0.5-1.5	SR-BH109SO 1.5-2.5	SR-BH110SO 0-1.0	SR-BH111SO 0.75-1.75	SR-BH113SO 4.0-5.0
Sample Depth (ft bgs)		Method A	Method B Non-Cancer	2.0 - 3.0	1.0 - 2.0	1.0 - 2.0	2.5 - 3.5	1.5 - 2.5	0.5 - 1.0	0.0 - 1.0	2.5 - 3.5	2.5 - 3.5	2.0 - 3.0	0.5 - 1.5	1.5 - 2.5	0.0 - 1.0	0.75 - 1.75	4.0 - 5.0
Sample Type	Units	A	B	Primary	Primary	Field Duplicate	Primary	Primary	Primary	Primary	Primary	Field Duplicate	Primary	Primary	Primary	Primary	Primary	Primary
Metals (6020B)																		
Arsenic	mg/kg	20	24	**5.52**	**10.6 J**	**8.72**	**23.3**	**8.28**	**17.9**	**6.33**	**9.4**	**10.1**	**21.8**	**3.69**	**4.96**	**3.3**	**4.81**	**5.74**
Cadmium	mg/kg	2	80	**0.517 J**	**0.632 J**	**1.04 J**	**10.4**	**1.53**	**1.92**	**0.113 J**	**1.48**	**1.01 J**	**1.13**	**0.244 J**	**0.25 J**	**0.309 J**	**0.816 J**	**1.08**
Lead	mg/kg	250	n/v	**103**	**141 J**	**321 J**	**6990**	**359 J+**	**1590**	**14.6**	**154**	**120**	**155**	**80.2**	**50.9**	**38.7**	**107**	**151**
TCLP Metals (1311/6010D)																		
Lead	mg/L	n/v	n/v	**0.212**	**0.225**	0.100 U	**1.18**	**0.557**	0.100 U	--	0.100 U	0.100 U	0.100 U	--	--	--	**0.148**	**0.125**
Petroleum Hydrocarbons (NWTPH-Dx)																		
Diesel Range Organics	mg/kg	2,000	n/v	**14.5**	70.5 U	**11.3**	**81.7 J**	561 U	285 U	**8.33**	555 U	274 U	567 U	559 U	278 U	13.8 U	138 U	**5.41**
Residual Range Organics	mg/kg	2,000	n/v	**138**	**862 J**	**108 J**	**921**	**4890**	**2260**	**62.6**	**3050 J**	**2050 J**	**4050 J**	**5010**	**2230**	**66.1**	**1670**	**40.2**
Polycyclic Aromatic Hydrocarbons (8270E-SIM)																		
Acenaphthene	mg/kg	n/v	4,800	**0.00451 J**	**0.00888**	0.00222 U	**0.0176**	**0.00805**	**0.0027 J**	**0.0233**	**0.0649**	**0.0181**	**0.0212**	**0.00343 J**	**0.00794**	0.00217 U	**0.0462**	0.00216 U
Acenaphthylene	mg/kg	n/v	n/v	**0.0109**	**0.0126**	**0.00843**	**0.0178**	**0.049**	**0.0229**	**0.0224**	**0.0639**	**0.0283**	**0.0838**	**0.0255**	**0.0143**	**0.00326 J**	**0.0684**	0.00223 U
Anthracene	mg/kg	n/v	24,000	**0.0123**	**0.0175**	**0.00495 J**	**0.0405**	**0.048**	**0.0229**	**0.0539**	**0.165 J**	**0.0469 J**	**0.0788**	**0.0181**	**0.0187**	**0.00266 J**	**0.118**	0.00238 U
Benzo(a)anthracene	mg/kg	n/v	n/v	**0.0729**	**0.105 J**	**0.0369 J**	**0.184**	**0.151**	**0.0719**	**0.331**	**0.937 J**	**0.251 J**	**0.344**	**0.0737**	**0.102**	**0.0121**	**0.384**	**0.0072**
Benzo(a)pyrene	mg/kg	0.1	24	**0.0831**	**0.126 J**	**0.0451 J**	**0.213**	**0.242 J+**	**0.142**	**0.406**	**1.18 J**	**0.341 J**	**0.428**	**0.148**	**0.158**	**0.0163**	**0.530**	**0.00709**
Benzo(b)fluoranthene	mg/kg	n/v	n/v	**0.0918**	**0.148 J**	**0.0579 J**	**0.412**	**0.341**	**0.172**	**0.462**	**1.43 J**	**0.402 J**	**0.536**	**0.166**	**0.185**	**0.0295**	**0.631**	**0.0111**
Benzo(g,h,i)perylene	mg/kg	n/v	n/v	**0.0905**	**0.111 J**	**0.0431 J**	**0.292**	**0.232**	**0.267**	**0.448**	**0.751 J**	**0.335 J**	**0.387**	**0.192**	**0.192**	**0.0267**	**0.53**	**0.0128**
Benzo(k)fluoranthene	mg/kg	n/v	n/v	**0.032**	**0.0569**	**0.022**	**0.128**	**0.0956**	**0.0551**	**0.174**	**0.513 J**	**0.136 J**	**0.179**	**0.0559**	**0.0632**	**0.00968**	**0.201**	**0.0038 J**
Chloronaphthalene, 2-	mg/kg	n/v	6,400	0.00479 U	0.00494 U	0.00495 U	0.00542 U	0.00492 U	0.00500 U	0.00509 U	0.00486 U	0.00480 U	0.00496 U	0.00490 U	0.00486 U	0.00483 U	0.00482 U	0.00482 U
Chrysene	mg/kg	n/v	n/v	**0.0751**	**0.117 J**	**0.038 J**	**0.181**	**0.153**	**0.0806**	**0.348**	**0.994 J**	**0.26 J**	**0.353**	**0.0789**	**0.105**	**0.0156**	**0.373**	**0.007**
Dibenzo(a,h)anthracene	mg/kg	n/v	n/v	**0.0143**	**0.0207**	**0.00808**	**0.0499**	**0.0441**	**0.0356**	**0.0695**	**0.15 J**	**0.0567 J**	**0.0729**	**0.0242**	**0.0345**	**0.00476 J**	**0.0878**	0.00178 U
Fluoranthene	mg/kg	n/v	3,200	**0.115**	**0.207 J**	**0.0604 J**	**0.254**	**0.257**	**0.147**	**0.584**	**1.63 J**	**0.409 J**	**0.642**	**0.122**	**0.178**	**0.0295**	**0.697**	**0.0132**
Fluorene	mg/kg	n/v	3,200	**0.00343 J**	**0.00512 J**	0.00218 U	**0.013**	**0.00644**	**0.00318 J**	**0.0114**	**0.032**	**0.0113**	**0.0151**	**0.00237 J**	**0.005 J**	0.00213 U	**0.0276**	0.00212 U
Indeno(1,2,3-cd)pyrene	mg/kg	n/v	n/v	**0.0617**	**0.106 J**	**0.0423 J**	**0.306**	**0.19**	**0.188**	**0.367**	**0.704 J**	**0.271 J**	**0.363**	**0.163**	**0.172**	**0.0226**	**0.432**	**0.00795**
Methylnaphthalene, 1-	mg/kg	n/v	5,600	**0.0105 J**	**0.00559 J**	0.00477 U	**0.0276**	**0.0169 J**	**0.0202 J**	0.00490 U	**0.0141 J**	**0.0263**	**0.0157 J**	**0.00531 J**	**0.0116 J**	0.00466 U	**0.0122 J**	**0.00582 J**
Methylnaphthalene, 2-	mg/kg	n/v	320	**0.0138 J**	**0.00596 J**	0.00454 U	**0.0378**	**0.0206 J**	**0.0283**	**0.00507 J**	**0.0146 J**	**0.0311**	**0.0196 J**	**0.00525 J**	**0.0105 J**	0.00443 U	**0.0164 J**	**0.0074 J**
Naphthalene	mg/kg	5	1,600	**0.0171 J**	**0.00685 J**	**0.00516 J**	**0.0373**	**0.0212**	**0.0243**	**0.00813 J**	**0.0222**	**0.0539**	**0.0263**	**0.00811 J**	**0.00622 J**	**0.00451 J**	**0.0191 J**	**0.00576 J**
Phenanthrene	mg/kg	n/v	n/v	**0.0584**	**0.0959**	**0.02**	**0.163**	**0.11**	**0.0657**	**0.202**	**0.593 J**	**0.162 J**	**0.265**	**0.0455**	**0.0662**	**0.0126**	**0.336**	**0.0106**
Pyrene	mg/kg	n/v	2,400	**0.115**	**0.216 J**	**0.0634 J**	**0.266**	**0.279 J+**	**0.185**	**0.611**	**1.7 J**	**0.428 J**	**0.646**	**0.148**	**0.199**	**0.0311**	**0.736**	**0.0121**
Toxicity Equivalency Concentration (TEQ)	**TEF**																	
Benzo(a)anthracene	0.1			**0.00729**	**0.0105**	**0.00369**	**0.0184**	**0.0151**	**0.00719**	**0.0331**	**0.0937**	**0.0251**	**0.0344**	**0.00737**	**0.0102**	**0.00121**	**0.0384**	**0.00072**
Benzo(a)pyrene	1			**0.0831**	**0.126**	**0.0451**	**0.213**	**0.2425**	**0.142**	**0.406**	**1.18**	**0.341**	**0.428**	**0.148**	**0.158**	**0.0163**	**0.53**	**0.00709**
Benzo(b)fluoranthene	0.1			**0.00918**	**0.0148**	**0.00579**	**0.0412**	**0.0341**	**0.0172**	**0.0462**	**0.143**	**0.0402**	**0.0536**	**0.0166**	**0.0185**	**0.00295**	**0.0631**	**0.00111**
Benzo(k)fluoranthene	0.1			**0.0032**	**0.00569**	**0.0022**	**0.0128**	**0.00956**	**0.00551**	**0.0174**	**0.0513**	**0.0136**	**0.0179**	**0.00559**	**0.00632**	**0.000968**	**0.0201**	**0.00038**
Chrysene	0.01			**0.000751**	**0.00117**	**0.00038**	**0.00181**	**0.00153**	**0.000806**	**0.00348**	**0.00994**	**0.0026**	**0.00353**	**0.000789**	**0.00105**	**0.000156**	**0.00373**	**0.00007**
Dibenzo(a,h)anthracene	0.1			**0.00143**	**0.00207**	**0.000808**	**0.00499**	**0.00441**	**0.00356**	**0.00695**	**0.015**	**0.00567**	**0.00729**	**0.00242**	**0.00345**	**0.000476**	**0.00878**	0
Indeno(1,2,3-cd)pyrene	0.1			**0.00617**	**0.0106**	**0.00423**	**0.0306**	**0.019**	**0.0188**	**0.0367**	**0.0704**	**0.0271**	**0.0363**	**0.0163**	**0.0172**	**0.00226**	**0.0432**	**0.000795**
Sum of cPAHs	mg/kg	0.1	24	**0.111**	**0.171**	**0.0622**	**0.323**	**0.326**	**0.195**	**0.550**	**1.56**	**0.455**	**0.581**	**0.197**	**0.215**	**0.0243**	**0.707**	**0.0102**

Notes:
MTCA CULs Washington Department of Ecology Model Toxics Control Act Cleanup Levels
A Method A Unrestricted Land Use - Soil (February 2021)
B Method B Non cancer - Soil (February 2021)
6.5 Concentration exceeds the indicated standard A.
6.5 Concentration exceeds the indicated standard B.
15.2 Measured concentration did not exceed the indicated standard.
-- sample not analyzed
Blank cell no screening level applies
cPAH Carcinogenic PAH
CUL Cleanup Level
mg/kg milligrams per kilogram
mg/L milligrams per liter
n/v No standard/guideline value.
SIM selective ion monitoring
TCLP Toxicity Characteristic Leaching Procedure
TEF Toxicity Equivalence Factor
TEQ Toxicity Equivalence Concentration
TEQ = cPAH concentration x TEF

Data Qualifier Codes:
J The reported result is an estimated value.
J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
U The analyte was not detected above the method detection limit.

APPENDIX A

Boring Logs

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH100** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258470** EASTING (ft): **2484133**
LAT: **47° 39' 25.59"** LONG: **-117° 24' 31.16"**
GROUND ELEV (ft): **1,939** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **3.0**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1000			Concrete slab						
			Gravel fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; light brown; fine to medium-grained; loose; dry; poorly graded; no odor; no staining					0	
1						2			
2					1013 SR-BH100SO 2.0-3.0			0	
1013 3			Basalt bedrock Refusal at 3 feet. Borehole terminated at 3 feet.						
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH101** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258446** EASTING (ft): **2484137**
LAT: **47° 39' 25.36"** LONG: **-117° 24' 31.11"**
GROUND ELEV (ft): **1,939** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **4.3**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1025			Concrete slab						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; very dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining; slight sheen						
1								0	
					1026 SR-BH101SO 1.0-2.0, SR-DUP01SO				
2			**COBBLES** ; broken bedrock			2.5			
3									
4									
1026			Basalt bedrock Refusal at 4.25 feet. Borehole terminated at 4.25 feet.						

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH102** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258432** EASTING (ft): **2484119**
LAT: **47° 39' 25.23"** LONG: **-117° 24' 31.38"**
GROUND ELEV (ft): **1,939** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **4.3**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1030			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining						
1									
2						3.25			
								0	
3					1035 SR-BH102SO 2.5-3.5				
1035			Red bricks						
4									
			Basalt bedrock Refusal at 4.25 feet. Borehole terminated at 4.25 feet.						

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH103** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258416** EASTING (ft): **2484131**
LAT: **47° 39' 25.06"** LONG: **-117° 24' 31.23"**
GROUND ELEV (ft): **1,939** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **2.5**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1040			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining			1.75		0	
1									
2			Red bricks and glass fragments		1042 SR-BH103SO 1.5-2.5				
1042			Basalt bedrock Refusal at 2.5 feet. Borehole terminated at 2.5 feet.						
3									
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH104** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258400**
LAT: **47° 39' 24.91"**
GROUND ELEV (ft): **1,939**
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **--**
LOGGED BY: **A. Wisher**

EASTING (ft): **2484135**
LONG: **-117° 24' 31.17"**
TOC ELEV (ft): **--**
WELL DEPTH (ft): **---**
BOREHOLE DEPTH (ft): **1.8**
BOREHOLE DIA. (in): **2.25**
CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1050			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining					0	
1					1054 SR-BH104SO 0.5-1.5	1			
1054			Brick and glass debris						
			Basalt bedrock Refusal at 1.75 feet. Borehole terminated at 1.75 feet.						
2									
3									
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH105** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258373**
LAT: **47° 39' 24.64"**
GROUND ELEV (ft): **1,939**
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **--**
LOGGED BY: **A. Wisher**

EASTING (ft): **2484128**
LONG: **-117° 24' 31.29"**
TOC ELEV (ft): **--**
WELL DEPTH (ft): **---**
BOREHOLE DEPTH (ft): **1.0**
BOREHOLE DIA. (in): **2.25**
CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1100			Gravel surface fill					0	
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown; fine to medium-grained; loose; dry; poorly graded; no odor; no staining		1102 SR-BH105SO 0-1.0	1			
1102 1			Basalt bedrock Refusal at 1 feet. Borehole terminated at 1 feet.						
2									
3									
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH106** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258374** EASTING (ft): **2484143**
LAT: **47° 39' 24.64"** LONG: **-117° 24' 31.07"**
GROUND ELEV (ft): **1,939** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **3.5**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1105			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining			2			
1									
2			Red bricks and glass fragments					0	
3					1110 SR-BH106SO 2.5-3.5, SR-DUP02SO				
1110			Basalt bedrock Refusal at 3.5 feet. Borehole terminated at 3.5 feet.						
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH107** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258357** EASTING (ft): **2484147**
LAT: **47° 39' 24.47"** LONG: **-117° 24' 31.02"**
GROUND ELEV (ft): **1,939** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **3.0**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1115			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining			1.5			
1									
2					1119 SR-BH107SO 2.0-3.0			0	
1119 3			Basalt bedrock Refusal at 3 feet. Borehole terminated at 3 feet.						
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH108** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258354**
LAT: **47° 39' 24.43"**
GROUND ELEV (ft): **1,939**
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **--**
LOGGED BY: **A. Wisher**

EASTING (ft): **2484169**
LONG: **-117° 24' 30.7"**
TOC ELEV (ft): **--**
WELL DEPTH (ft): **---**
BOREHOLE DEPTH (ft): **1.5**
BOREHOLE DIA. (in): **2.25**
CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1130			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining		1133 SR-BH108SO 0.5-1.5	2.25		0	
1									
1133			Basalt bedrock Refusal at 1.5 feet. Borehole terminated at 1.5 feet.						
2									
3									
4									

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH109** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258353**
LAT: **47° 39' 24.41"**
GROUND ELEV (ft): **1,939**
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **--**
LOGGED BY: **A. Wisher**

EASTING (ft): **2484197**
LONG: **-117° 24' 30.3"**
TOC ELEV (ft): **--**
WELL DEPTH (ft): **---**
BOREHOLE DEPTH (ft): **2.5**
BOREHOLE DIA. (in): **2.25**
CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1135			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining			2.0		0	
1									
			Becomes moist		1140 SR-BH109SO 1.5-2.5				
2									
1140			Basalt bedrock Refusal at 2.5 feet. Borehole terminated at 2.5 feet.						
3									
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH110** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258386**
LAT: **47° 39' 24.73"**
GROUND ELEV (ft): **1,939**
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **--**
LOGGED BY: **A. Wisher**

EASTING (ft): **2484195**
LONG: **-117° 24' 30.3"**
TOC ELEV (ft): **--**
WELL DEPTH (ft): **---**
BOREHOLE DEPTH (ft): **1.0**
BOREHOLE DIA. (in): **2.25**
CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1145			Gravel surface fill					0	
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; brown; fine to medium-grained; loose; dry; poorly graded; no odor; no staining		1147 SR-BH110SO 0-1.0	1			
1147 1			Basalt bedrock Refusal at 1 feet. Borehole terminated at 1 feet.						
2									
3									
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH111** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258401** EASTING (ft): **2484167**
LAT: **47° 39' 24.9"** LONG: **-117° 24' 30.7"**
GROUND ELEV (ft): **1,938** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **1.8**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
1150			Gravel surface fill						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining		1155 SR-BH111SO 0.75-1.75	1.5		0	
1									
1155			Basalt bedrock Refusal at 1.75 feet. Borehole terminated at 1.75 feet.						
2									
3									
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH112** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258421**
LAT: **47° 39' 25.09"**
GROUND ELEV (ft): **1,939**
INITIAL DTW (ft): **Not Encountered**
STATIC DTW (ft): **Not Encountered**
WELL CASING DIA. (in): **--**
LOGGED BY: **A. Wisher**

EASTING (ft): **2484180**
LONG: **-117° 24' 30.49"**
TOC ELEV (ft): **--**
WELL DEPTH (ft): **---**
BOREHOLE DEPTH (ft): **0.3**
BOREHOLE DIA. (in): **2.25**
CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
0948			Concrete slab						
			Concrete placed directly on top of basalt bedrock, no samples collected.			.10			
0950			Basalt bedrock Refusal at 0.25 feet. Borehole terminated at 0.25 feet.						
1									
2									
3									
4									

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

PROJECT: **Supplemental Phase II ESA**
LOCATION: **130 East Sprague Avenue, Spokane WA**
PROJECT NUMBER: **185751443**

WELL / PROBEHOLE / BOREHOLE NO: **BH113** PAGE 1 OF 1

Stantec

DRILLING / INSTALLATION:
STARTED **6/8/21** COMPLETED: **6/8/21**
DRILLING COMPANY: **Environmental West Drilling**
DRILLING EQUIPMENT: **GeoProbe 5400**
DRILLING METHOD: **Direct Push**
SAMPLING EQUIPMENT: **Macro-Core**

NORTHING (ft): **258455** EASTING (ft): **2484175**
LAT: **47° 39' 25.43"** LONG: **-117° 24' 30.54"**
GROUND ELEV (ft): **1,939** TOC ELEV (ft): **--**
INITIAL DTW (ft): **Not Encountered** WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered** BOREHOLE DEPTH (ft): **5.0**
WELL CASING DIA. (in): **--** BOREHOLE DIA. (in): **2.25**
LOGGED BY: **A. Wisher** CHECKED BY: **C. Gorman**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
0928			Concrete slab						
		SP-SM	**SILTY SAND AND GRAVEL** ; SP-SM; very dark brown to black; fine to medium-grained; loose; dry; poorly graded; no odor; no staining						
1									
2						4.25			
3			Increasing bedrock fragments						
4					0933 SR-BH113SO 4.0-5.0			0	
0933 5			Basalt bedrock Refusal at 5 feet. Borehole terminated at 5 feet.						5

GEO FORM 304 LOG_130_E_SPRAGUE_AVE_20210610.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 7/20/21

APPENDIX B

Laboratory Reports

ANALYTICAL REPORT

July 08, 2021

Revised Report

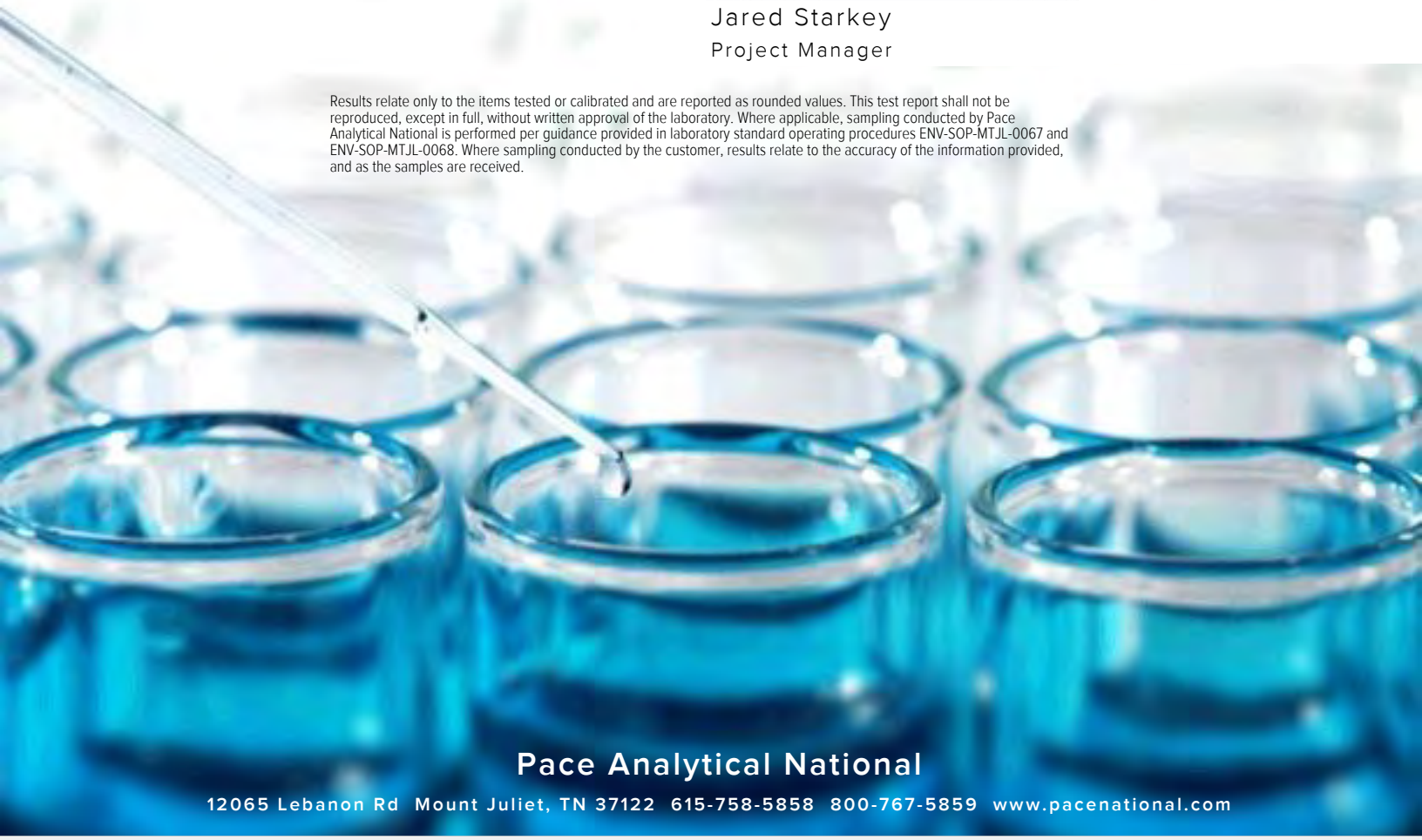
Stantec - Lynnwood, WA

Sample Delivery Group:	L1364028
Samples Received:	06/09/2021
Project Number:	185751443
Description:	Spokane Roofing
Site:	185751413
Report To:	Cyrus Gorman 4100 194th Street SW Suite 400 Lynnwood, WA 98036

Entire Report Reviewed By:

Jared Starkey
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

SR-BH113SO 4.0-5.0 L1364028-01 Solid

Collected by: Wisher | Collected date/time: 06/08/21 09:33 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:30	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	1	06/11/21 19:35	06/15/21 04:50	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686664	1	06/11/21 17:10	06/12/21 16:18	LEA	Mt. Juliet, TN

SR-BH100SO 2.0-3.0 L1364028-02 Solid

Collected by: Wisher | Collected date/time: 06/08/21 10:13 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:33	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	2	06/11/21 19:35	06/12/21 18:38	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686664	1	06/11/21 17:10	06/12/21 16:38	LEA	Mt. Juliet, TN

SR-BH101SO 1.0-2.0 L1364028-03 Solid

Collected by: Wisher | Collected date/time: 06/08/21 10:26 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:37	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	50	06/11/21 19:35	06/15/21 05:53	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 02:51	LEA	Mt. Juliet, TN

SR-BH102SO 2.5-3.5 L1364028-04 Solid

Collected by: Wisher | Collected date/time: 06/08/21 10:35 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:40	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	500	06/15/21 17:55	06/16/21 17:58	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	50	06/11/21 19:35	06/12/21 19:29	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 03:09	LEA	Mt. Juliet, TN

SR-BH103SO 1.5-2.5 L1364028-05 Solid

Collected by: Wisher | Collected date/time: 06/08/21 10:42 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 15:41	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	400	06/11/21 19:35	06/12/21 19:42	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 05:49	LEA	Mt. Juliet, TN

SR-BH104SO 0.5-1.0 L1364028-06 Solid

Collected by: Wisher | Collected date/time: 06/08/21 10:54 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:44	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	200	06/11/21 19:35	06/12/21 20:08	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 03:27	LEA	Mt. Juliet, TN

SR-BH105SO 0-1.0 L1364028-07 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:02 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:47	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	1	06/11/21 19:35	06/12/21 18:26	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 03:44	LEA	Mt. Juliet, TN

SR-BH106SO 2.5-3.5 L1364028-08 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:10 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:51	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	400	06/11/21 19:35	06/12/21 20:20	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 05:32	LEA	Mt. Juliet, TN

SR-BH107SO 2.0-3.0 L1364028-09 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:19 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 16:54	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	400	06/11/21 19:35	06/12/21 20:33	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 04:02	LEA	Mt. Juliet, TN

SR-BH108SO 0.5-1.5 L1364028-10 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:33 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1685996	1	06/10/21 23:15	06/10/21 23:21	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 17:25	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	400	06/11/21 19:35	06/12/21 20:46	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 04:20	LEA	Mt. Juliet, TN

SR-BH109SO 1.5-2.5 L1364028-11 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:40 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1686001	1	06/10/21 22:59	06/10/21 23:04	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 17:28	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	200	06/11/21 19:35	06/12/21 21:11	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 04:38	LEA	Mt. Juliet, TN

SR-BH110SO 0-1.0 L1364028-12 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:40 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1686001	1	06/10/21 22:59	06/10/21 23:04	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 17:32	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	10	06/11/21 19:35	06/12/21 21:24	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 02:33	LEA	Mt. Juliet, TN

SR-BH111SO 0.75-1.75 L1364028-13 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:40 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1686001	1	06/10/21 22:59	06/10/21 23:04	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 17:35	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	100	06/11/21 19:35	06/12/21 21:36	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 04:56	LEA	Mt. Juliet, TN

SR-DUP01 L1364028-14 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:40 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1686001	1	06/10/21 22:59	06/10/21 23:04	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 17:38	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	2	06/11/21 19:35	06/15/21 05:15	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 02:15	LEA	Mt. Juliet, TN

SR-DUP02 L1364028-15 Solid

Collected by: Wisher | Collected date/time: 06/08/21 11:40 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1686001	1	06/10/21 22:59	06/10/21 23:04	CMK	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1687347	5	06/15/21 17:55	06/16/21 17:42	LAT	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1687176	200	06/11/21 19:35	06/12/21 22:14	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1686969	1	06/11/21 17:20	06/12/21 05:14	LEA	Mt. Juliet, TN

SR-ER01 L1364028-16 GW

Collected by: Wisher | Collected date/time: 06/08/21 11:40 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG1692858	1	06/24/21 04:23	06/24/21 18:45	LD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1688283	1	06/15/21 10:04	06/16/21 19:00	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1687383	1	06/12/21 13:12	06/12/21 20:07	LEA	Mt. Juliet, TN

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jared Starkey
Project Manager

Report Revision History

Level II Report - Version 1: 06/28/21 11:07

Metals (ICPMS) by Method 6020B

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG1687347	(MS) R3668211-5, (MSD) R3668211-6, L1364028-05	Lead

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG1687347	(MSD) R3668211-6, L1364028-05	Lead

The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Batch	Lab Sample ID	Analytes
WG1687347	L1364028-05	Arsenic, Cadmium and Lead

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG1687176	o-Terphenyl	L1364028-12

Surrogate recovery cannot be used for control limit evaluation due to dilution.

Batch	Analyte	Lab Sample ID
WG1687176	o-Terphenyl	L1364028-03, 04, 05, 06, 08, 09, 10, 11, 13, 15

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

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG1686969	Nitrobenzene-d5	L1364028-15

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

The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Batch	Lab Sample ID	Analytes
WG1686664	(MS) R3666648-3, (MSD) R3666648-4	Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene and Pyrene

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG1686969	(MSD) R3666678-4, L1364028-05	Benzo(a)pyrene and Pyrene

The sample concentration is too high to evaluate accurate spike recoveries.

Batch	Lab Sample ID	Analytes
WG1686969	(MS) R3666678-3, (MSD) R3666678-4, L1364028-05	Benzo(b)fluoranthene

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG1686664	(MSD) R3666648-4	Phenanthrene

DETECTION SUMMARY

Metals (ICPMS) by Method 6020B

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH113SO 4.0-5.0	L1364028-01	Arsenic	5.74		0.103	1.03	5	06/16/2021 16:30	WG1687347
SR-BH113SO 4.0-5.0	L1364028-01	Cadmium	1.08		0.0884	1.03	5	06/16/2021 16:30	WG1687347
SR-BH113SO 4.0-5.0	L1364028-01	Lead	151		0.102	2.07	5	06/16/2021 16:30	WG1687347
SR-BH100SO 2.0-3.0	L1364028-02	Arsenic	5.52		0.103	1.03	5	06/16/2021 16:33	WG1687347
SR-BH100SO 2.0-3.0	L1364028-02	Cadmium	0.517	J	0.0879	1.03	5	06/16/2021 16:33	WG1687347
SR-BH100SO 2.0-3.0	L1364028-02	Lead	103		0.102	2.06	5	06/16/2021 16:33	WG1687347
SR-BH101SO 1.0-2.0	L1364028-03	Arsenic	10.6		0.106	1.06	5	06/16/2021 16:37	WG1687347
SR-BH101SO 1.0-2.0	L1364028-03	Cadmium	0.632	J	0.0906	1.06	5	06/16/2021 16:37	WG1687347
SR-BH101SO 1.0-2.0	L1364028-03	Lead	141		0.105	2.12	5	06/16/2021 16:37	WG1687347
SR-BH102SO 2.5-3.5	L1364028-04	Arsenic	23.3		0.116	1.16	5	06/16/2021 16:40	WG1687347
SR-BH102SO 2.5-3.5	L1364028-04	Cadmium	10.4		0.0995	1.16	5	06/16/2021 16:40	WG1687347
SR-BH102SO 2.5-3.5	L1364028-04	Lead	6990		11.5	233	500	06/16/2021 17:58	WG1687347
SR-BH103SO 1.5-2.5	L1364028-05	Arsenic	8.28	O1	0.106	1.06	5	06/16/2021 15:41	WG1687347
SR-BH103SO 1.5-2.5	L1364028-05	Cadmium	1.53	O1	0.0902	1.06	5	06/16/2021 15:41	WG1687347
SR-BH103SO 1.5-2.5	L1364028-05	Lead	359	J3 J5 O1	0.104	2.11	5	06/16/2021 15:41	WG1687347
SR-BH104SO 0.5-1.0	L1364028-06	Arsenic	17.9		0.107	1.07	5	06/16/2021 16:44	WG1687347
SR-BH104SO 0.5-1.0	L1364028-06	Cadmium	1.92		0.0917	1.07	5	06/16/2021 16:44	WG1687347
SR-BH104SO 0.5-1.0	L1364028-06	Lead	1590		0.106	2.14	5	06/16/2021 16:44	WG1687347
SR-BH105SO 0-1.0	L1364028-07	Arsenic	6.33		0.109	1.09	5	06/16/2021 16:47	WG1687347
SR-BH105SO 0-1.0	L1364028-07	Cadmium	0.113	J	0.0934	1.09	5	06/16/2021 16:47	WG1687347
SR-BH105SO 0-1.0	L1364028-07	Lead	14.6		0.108	2.18	5	06/16/2021 16:47	WG1687347
SR-BH106SO 2.5-3.5	L1364028-08	Arsenic	9.40		0.104	1.04	5	06/16/2021 16:51	WG1687347
SR-BH106SO 2.5-3.5	L1364028-08	Cadmium	1.48		0.0892	1.04	5	06/16/2021 16:51	WG1687347
SR-BH106SO 2.5-3.5	L1364028-08	Lead	154		0.103	2.09	5	06/16/2021 16:51	WG1687347
SR-BH107SO 2.0-3.0	L1364028-09	Arsenic	21.8		0.107	1.07	5	06/16/2021 16:54	WG1687347
SR-BH107SO 2.0-3.0	L1364028-09	Cadmium	1.13		0.0911	1.07	5	06/16/2021 16:54	WG1687347
SR-BH107SO 2.0-3.0	L1364028-09	Lead	155		0.105	2.13	5	06/16/2021 16:54	WG1687347
SR-BH108SO 0.5-1.5	L1364028-10	Arsenic	3.69		0.105	1.05	5	06/16/2021 17:25	WG1687347
SR-BH108SO 0.5-1.5	L1364028-10	Cadmium	0.244	J	0.0899	1.05	5	06/16/2021 17:25	WG1687347
SR-BH108SO 0.5-1.5	L1364028-10	Lead	80.2		0.104	2.10	5	06/16/2021 17:25	WG1687347
SR-BH109SO 1.5-2.5	L1364028-11	Arsenic	4.96		0.104	1.04	5	06/16/2021 17:28	WG1687347
SR-BH109SO 1.5-2.5	L1364028-11	Cadmium	0.250	J	0.0892	1.04	5	06/16/2021 17:28	WG1687347
SR-BH109SO 1.5-2.5	L1364028-11	Lead	50.9		0.103	2.09	5	06/16/2021 17:28	WG1687347
SR-BH110SO 0-1.0	L1364028-12	Arsenic	3.30		0.104	1.04	5	06/16/2021 17:32	WG1687347
SR-BH110SO 0-1.0	L1364028-12	Cadmium	0.309	J	0.0887	1.04	5	06/16/2021 17:32	WG1687347
SR-BH110SO 0-1.0	L1364028-12	Lead	38.7		0.103	2.07	5	06/16/2021 17:32	WG1687347
SR-BH111SO 0.75-1.75	L1364028-13	Arsenic	4.81		0.103	1.03	5	06/16/2021 17:35	WG1687347
SR-BH111SO 0.75-1.75	L1364028-13	Cadmium	0.816	J	0.0885	1.03	5	06/16/2021 17:35	WG1687347
SR-BH111SO 0.75-1.75	L1364028-13	Lead	107		0.102	2.07	5	06/16/2021 17:35	WG1687347
SR-DUP01	L1364028-14	Arsenic	8.72		0.106	1.06	5	06/16/2021 17:38	WG1687347
SR-DUP01	L1364028-14	Cadmium	1.04	J	0.0908	1.06	5	06/16/2021 17:38	WG1687347
SR-DUP01	L1364028-14	Lead	321		0.105	2.13	5	06/16/2021 17:38	WG1687347
SR-DUP02	L1364028-15	Arsenic	10.1		0.103	1.03	5	06/16/2021 17:42	WG1687347
SR-DUP02	L1364028-15	Cadmium	1.01	J	0.0881	1.03	5	06/16/2021 17:42	WG1687347
SR-DUP02	L1364028-15	Lead	120		0.102	2.06	5	06/16/2021 17:42	WG1687347

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

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH113SO 4.0-5.0	L1364028-01	Diesel Range Organics (DRO)	5.41		1.38	4.14	1	06/15/2021 04:50	WG1687176
SR-BH113SO 4.0-5.0	L1364028-01	Residual Range Organics (RRO)	40.2		3.44	10.3	1	06/15/2021 04:50	WG1687176
SR-BH100SO 2.0-3.0	L1364028-02	Diesel Range Organics (DRO)	14.5		2.73	8.22	2	06/12/2021 18:38	WG1687176
SR-BH100SO 2.0-3.0	L1364028-02	Residual Range Organics (RRO)	138		6.85	20.6	2	06/12/2021 18:38	WG1687176
SR-BH101SO 1.0-2.0	L1364028-03	Residual Range Organics (RRO)	862		176	530	50	06/15/2021 05:53	WG1687176

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

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH102SO 2.5-3.5	L1364028-04	Diesel Range Organics (DRO)	81.7	J	77.4	233	50	06/12/2021 19:29	WG1687176
SR-BH102SO 2.5-3.5	L1364028-04	Residual Range Organics (RRO)	921		193	582	50	06/12/2021 19:29	WG1687176
SR-BH103SO 1.5-2.5	L1364028-05	Residual Range Organics (RRO)	4890		1400	4220	400	06/12/2021 19:42	WG1687176
SR-BH104SO 0.5-1.0	L1364028-06	Residual Range Organics (RRO)	2260		714	2140	200	06/12/2021 20:08	WG1687176
SR-BH105SO 0-1.0	L1364028-07	Diesel Range Organics (DRO)	8.33		1.45	4.37	1	06/12/2021 18:26	WG1687176
SR-BH105SO 0-1.0	L1364028-07	Residual Range Organics (RRO)	62.6		3.64	10.9	1	06/12/2021 18:26	WG1687176
SR-BH106SO 2.5-3.5	L1364028-08	Residual Range Organics (RRO)	3050	J	1390	4170	400	06/12/2021 20:20	WG1687176
SR-BH107SO 2.0-3.0	L1364028-09	Residual Range Organics (RRO)	4050	J	1420	4260	400	06/12/2021 20:33	WG1687176
SR-BH108SO 0.5-1.5	L1364028-10	Residual Range Organics (RRO)	5010		1400	4210	400	06/12/2021 20:46	WG1687176
SR-BH109SO 1.5-2.5	L1364028-11	Residual Range Organics (RRO)	2230		695	2090	200	06/12/2021 21:11	WG1687176
SR-BH110SO 0-1.0	L1364028-12	Residual Range Organics (RRO)	66.1	J	34.5	104	10	06/12/2021 21:24	WG1687176
SR-BH111SO 0.75-1.75	L1364028-13	Residual Range Organics (RRO)	1670		345	1030	100	06/12/2021 21:36	WG1687176
SR-DUP01	L1364028-14	Diesel Range Organics (DRO)	11.3		2.83	8.50	2	06/15/2021 05:15	WG1687176
SR-DUP01	L1364028-14	Residual Range Organics (RRO)	108		7.08	21.3	2	06/15/2021 05:15	WG1687176
SR-DUP02	L1364028-15	Residual Range Organics (RRO)	2050	J	686	2060	200	06/12/2021 22:14	WG1687176

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

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH113SO 4.0-5.0	L1364028-01	Benzo(a)anthracene	0.00720		0.00179	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Benzo(a)pyrene	0.00709		0.00185	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Benzo(b)fluoranthene	0.0111		0.00158	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Benzo(g,h,i)perylene	0.0128		0.00183	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Benzo(k)fluoranthene	0.00380	J	0.00222	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Chrysene	0.00700		0.00240	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Fluoranthene	0.0132		0.00235	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Indeno(1,2,3-cd)pyrene	0.00795		0.00187	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Naphthalene	0.00576	J	0.00422	0.0207	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Phenanthrene	0.0106		0.00239	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	Pyrene	0.0121		0.00207	0.00621	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	1-Methylnaphthalene	0.00582	J	0.00464	0.0207	1	06/12/2021 16:18	WG1686664
SR-BH113SO 4.0-5.0	L1364028-01	2-Methylnaphthalene	0.00740	J	0.00442	0.0207	1	06/12/2021 16:18	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Anthracene	0.0123		0.00236	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Acenaphthene	0.00451	J	0.00215	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Acenaphthylene	0.0109		0.00222	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Benzo(a)anthracene	0.0729		0.00178	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Benzo(a)pyrene	0.0831		0.00184	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Benzo(b)fluoranthene	0.0918		0.00157	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Benzo(g,h,i)perylene	0.0905		0.00182	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Benzo(k)fluoranthene	0.0320		0.00221	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Chrysene	0.0751		0.00238	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Dibenz(a,h)anthracene	0.0143		0.00177	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Fluoranthene	0.115		0.00233	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Fluorene	0.00343	J	0.00211	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Indeno(1,2,3-cd)pyrene	0.0617		0.00186	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Naphthalene	0.0171	J	0.00419	0.0206	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Phenanthrene	0.0584		0.00237	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	Pyrene	0.115		0.00206	0.00617	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	1-Methylnaphthalene	0.0105	J	0.00462	0.0206	1	06/12/2021 16:38	WG1686664
SR-BH100SO 2.0-3.0	L1364028-02	2-Methylnaphthalene	0.0138	J	0.00439	0.0206	1	06/12/2021 16:38	WG1686664

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

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH101SO 1.0-2.0	L1364028-03	Anthracene	0.0175		0.00244	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Acenaphthene	0.00888		0.00222	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Acenaphthylene	0.0126		0.00229	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Benzo(a)anthracene	0.105		0.00183	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Benzo(a)pyrene	0.126		0.00190	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Benzo(b)fluoranthene	0.148		0.00162	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Benzo(g,h,i)perylene	0.111		0.00188	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Benzo(k)fluoranthene	0.0569		0.00228	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Chrysene	0.117		0.00246	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Dibenz(a,h)anthracene	0.0207		0.00182	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Fluoranthene	0.207		0.00241	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Fluorene	0.00512	J	0.00217	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Indeno(1,2,3-cd)pyrene	0.106		0.00192	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Naphthalene	0.00685	J	0.00432	0.0212	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Phenanthrene	0.0959		0.00245	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	Pyrene	0.216		0.00212	0.00636	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	1-Methylnaphthalene	0.00559	J	0.00476	0.0212	1	06/12/2021 02:51	WG1686969
SR-BH101SO 1.0-2.0	L1364028-03	2-Methylnaphthalene	0.00596	J	0.00453	0.0212	1	06/12/2021 02:51	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Anthracene	0.0405		0.00268	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Acenaphthene	0.0176		0.00243	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Acenaphthylene	0.0178		0.00251	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Benzo(a)anthracene	0.184		0.00201	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Benzo(a)pyrene	0.213		0.00208	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Benzo(b)fluoranthene	0.412		0.00178	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Benzo(g,h,i)perylene	0.292		0.00206	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Benzo(k)fluoranthene	0.128		0.00250	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Chrysene	0.181		0.00270	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Dibenz(a,h)anthracene	0.0499		0.00200	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Fluoranthene	0.254		0.00264	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Fluorene	0.0130		0.00239	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Indeno(1,2,3-cd)pyrene	0.306		0.00211	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Naphthalene	0.0373		0.00475	0.0233	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Phenanthrene	0.163		0.00269	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	Pyrene	0.266		0.00233	0.00698	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	1-Methylnaphthalene	0.0276		0.00522	0.0233	1	06/12/2021 03:09	WG1686969
SR-BH102SO 2.5-3.5	L1364028-04	2-Methylnaphthalene	0.0378		0.00497	0.0233	1	06/12/2021 03:09	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Anthracene	0.0480		0.00243	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Acenaphthene	0.00805		0.00221	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Acenaphthylene	0.0490		0.00228	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Benzo(a)anthracene	0.151		0.00183	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Benzo(a)pyrene	0.242	J5	0.00189	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Benzo(b)fluoranthene	0.341	V	0.00161	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Benzo(g,h,i)perylene	0.232		0.00187	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Benzo(k)fluoranthene	0.0956		0.00227	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Chrysene	0.153		0.00245	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Dibenz(a,h)anthracene	0.0441		0.00182	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Fluoranthene	0.257		0.00240	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Fluorene	0.00644		0.00216	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Indeno(1,2,3-cd)pyrene	0.190		0.00191	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Naphthalene	0.0212		0.00431	0.0211	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Phenanthrene	0.110		0.00244	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	Pyrene	0.279	J5	0.00211	0.00633	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	1-Methylnaphthalene	0.0169	J	0.00474	0.0211	1	06/12/2021 05:49	WG1686969
SR-BH103SO 1.5-2.5	L1364028-05	2-Methylnaphthalene	0.0206	J	0.00451	0.0211	1	06/12/2021 05:49	WG1686969

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

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH104SO 0.5-1.0	L1364028-06	Anthracene	0.0229		0.00247	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Acenaphthene	0.00270	J	0.00224	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Acenaphthylene	0.0229		0.00232	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Benzo(a)anthracene	0.0719		0.00185	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Benzo(a)pyrene	0.142		0.00192	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Benzo(b)fluoranthene	0.172		0.00164	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Benzo(g,h,i)perylene	0.267		0.00190	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Benzo(k)fluoranthene	0.0551		0.00231	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Chrysene	0.0806		0.00249	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Dibenz(a,h)anthracene	0.0356		0.00184	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Fluoranthene	0.147		0.00243	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Fluorene	0.00318	J	0.00220	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Indeno(1,2,3-cd)pyrene	0.188		0.00194	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Naphthalene	0.0243		0.00437	0.0214	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Phenanthrene	0.0657		0.00248	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	Pyrene	0.185		0.00214	0.00643	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	1-Methylnaphthalene	0.0202	J	0.00481	0.0214	1	06/12/2021 03:27	WG1686969
SR-BH104SO 0.5-1.0	L1364028-06	2-Methylnaphthalene	0.0283		0.00458	0.0214	1	06/12/2021 03:27	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Anthracene	0.0537		0.00251	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Acenaphthene	0.0233		0.00228	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Acenaphthylene	0.0224		0.00236	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Benzo(a)anthracene	0.331		0.00189	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Benzo(a)pyrene	0.406		0.00195	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Benzo(b)fluoranthene	0.462		0.00167	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Benzo(g,h,i)perylene	0.448		0.00193	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Benzo(k)fluoranthene	0.174		0.00235	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Chrysene	0.348		0.00253	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Dibenz(a,h)anthracene	0.0695		0.00188	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Fluoranthene	0.584		0.00248	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Fluorene	0.0114		0.00224	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Indeno(1,2,3-cd)pyrene	0.367		0.00198	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Naphthalene	0.00813	J	0.00446	0.0218	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Phenanthrene	0.202		0.00252	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	Pyrene	0.611		0.00218	0.00655	1	06/12/2021 03:44	WG1686969
SR-BH105SO 0-1.0	L1364028-07	2-Methylnaphthalene	0.00507	J	0.00466	0.0218	1	06/12/2021 03:44	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Anthracene	0.165		0.00240	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Acenaphthene	0.0649		0.00218	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Acenaphthylene	0.0639		0.00225	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Benzo(a)anthracene	0.937		0.00180	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Benzo(a)pyrene	1.18		0.00187	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Benzo(b)fluoranthene	1.43		0.00160	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Benzo(g,h,i)perylene	0.751		0.00185	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Benzo(k)fluoranthene	0.513		0.00224	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Chrysene	0.994		0.00242	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Dibenz(a,h)anthracene	0.150		0.00179	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Fluoranthene	1.63		0.00237	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Fluorene	0.0320		0.00214	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Indeno(1,2,3-cd)pyrene	0.704		0.00189	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Naphthalene	0.0222		0.00426	0.0209	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Phenanthrene	0.593		0.00241	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	Pyrene	1.70		0.00209	0.00626	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	1-Methylnaphthalene	0.0141	J	0.00468	0.0209	1	06/12/2021 05:32	WG1686969
SR-BH106SO 2.5-3.5	L1364028-08	2-Methylnaphthalene	0.0146	J	0.00445	0.0209	1	06/12/2021 05:32	WG1686969

DETECTION SUMMARY

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

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH107SO 2.0-3.0	L1364028-09	Anthracene	0.0788		0.00245	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Acenaphthene	0.0212		0.00223	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Acenaphthylene	0.0838		0.00230	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Benzo(a)anthracene	0.344		0.00184	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Benzo(a)pyrene	0.428		0.00191	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Benzo(b)fluoranthene	0.536		0.00163	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Benzo(g,h,i)perylene	0.387		0.00189	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Benzo(k)fluoranthene	0.179		0.00229	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Chrysene	0.353		0.00247	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Dibenz(a,h)anthracene	0.0729		0.00183	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Fluoranthene	0.642		0.00242	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Fluorene	0.0151		0.00218	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Indeno(1,2,3-cd)pyrene	0.363		0.00193	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Naphthalene	0.0263		0.00435	0.0213	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Phenanthrene	0.265		0.00246	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	Pyrene	0.646		0.00213	0.00639	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	1-Methylnaphthalene	0.0157	J	0.00478	0.0213	1	06/12/2021 04:02	WG1686969
SR-BH107SO 2.0-3.0	L1364028-09	2-Methylnaphthalene	0.0196	J	0.00455	0.0213	1	06/12/2021 04:02	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Anthracene	0.0181		0.00242	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Acenaphthene	0.00343	J	0.00220	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Acenaphthylene	0.0255		0.00227	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Benzo(a)anthracene	0.0737		0.00182	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Benzo(a)pyrene	0.148		0.00188	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Benzo(b)fluoranthene	0.166		0.00161	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Benzo(g,h,i)perylene	0.192		0.00186	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Benzo(k)fluoranthene	0.0559		0.00226	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Chrysene	0.0789		0.00244	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Dibenz(a,h)anthracene	0.0242		0.00181	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Fluoranthene	0.122		0.00239	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Fluorene	0.00237	J	0.00216	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Indeno(1,2,3-cd)pyrene	0.163		0.00190	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Naphthalene	0.00811	J	0.00429	0.0210	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Phenanthrene	0.0455		0.00243	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	Pyrene	0.148		0.00210	0.00631	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	1-Methylnaphthalene	0.00531	J	0.00472	0.0210	1	06/12/2021 04:20	WG1686969
SR-BH108SO 0.5-1.5	L1364028-10	2-Methylnaphthalene	0.00525	J	0.00449	0.0210	1	06/12/2021 04:20	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Anthracene	0.0187		0.00240	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Acenaphthene	0.00794		0.00218	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Acenaphthylene	0.0143		0.00225	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Benzo(a)anthracene	0.102		0.00181	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Benzo(a)pyrene	0.158		0.00187	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Benzo(b)fluoranthene	0.185		0.00160	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Benzo(g,h,i)perylene	0.192		0.00185	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Benzo(k)fluoranthene	0.0632		0.00224	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Chrysene	0.105		0.00242	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Dibenz(a,h)anthracene	0.0345		0.00180	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Fluoranthene	0.178		0.00237	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Fluorene	0.00500	J	0.00214	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Indeno(1,2,3-cd)pyrene	0.172		0.00189	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Naphthalene	0.00622	J	0.00426	0.0209	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Phenanthrene	0.0662		0.00241	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	Pyrene	0.199		0.00209	0.00626	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	1-Methylnaphthalene	0.0116	J	0.00469	0.0209	1	06/12/2021 04:38	WG1686969
SR-BH109SO 1.5-2.5	L1364028-11	2-Methylnaphthalene	0.0105	J	0.00446	0.0209	1	06/12/2021 04:38	WG1686969

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

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SR-BH110SO 0-1.0	L1364028-12	Anthracene	0.00266	J	0.00239	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Acenaphthylene	0.00326	J	0.00224	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Benzo(a)anthracene	0.0121		0.00179	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Benzo(a)pyrene	0.0163		0.00186	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Benzo(b)fluoranthene	0.0295		0.00159	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Benzo(g,h,i)perylene	0.0267		0.00184	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Benzo(k)fluoranthene	0.00968		0.00223	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Chrysene	0.0156		0.00241	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Dibenz(a,h)anthracene	0.00476	J	0.00178	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Fluoranthene	0.0295		0.00235	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Indeno(1,2,3-cd)pyrene	0.0226		0.00188	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Naphthalene	0.00451	J	0.00423	0.0207	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Phenanthrene	0.0126		0.00240	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH110SO 0-1.0	L1364028-12	Pyrene	0.0311		0.00207	0.00622	1	06/12/2021 02:33	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Anthracene	0.118		0.00238	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Acenaphthene	0.0462		0.00216	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Acenaphthylene	0.0684		0.00223	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Benzo(a)anthracene	0.384		0.00179	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Benzo(a)pyrene	0.530		0.00185	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Benzo(b)fluoranthene	0.631		0.00158	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Benzo(g,h,i)perylene	0.530		0.00183	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Benzo(k)fluoranthene	0.201		0.00222	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Chrysene	0.373		0.00240	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Dibenz(a,h)anthracene	0.0878		0.00178	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Fluoranthene	0.697		0.00235	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Fluorene	0.0276		0.00212	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Indeno(1,2,3-cd)pyrene	0.432		0.00187	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Naphthalene	0.0191	J	0.00422	0.0207	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Phenanthrene	0.336		0.00239	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	Pyrene	0.736		0.00207	0.00621	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	1-Methylnaphthalene	0.0122	J	0.00465	0.0207	1	06/12/2021 04:56	WG1686969
SR-BH111SO 0.75-1.75	L1364028-13	2-Methylnaphthalene	0.0164	J	0.00442	0.0207	1	06/12/2021 04:56	WG1686969
SR-DUP01	L1364028-14	Anthracene	0.00495	J	0.00244	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Acenaphthylene	0.00843		0.00230	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Benzo(a)anthracene	0.0369		0.00184	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Benzo(a)pyrene	0.0451		0.00190	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Benzo(b)fluoranthene	0.0579		0.00163	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Benzo(g,h,i)perylene	0.0431		0.00188	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Benzo(k)fluoranthene	0.0220		0.00228	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Chrysene	0.0380		0.00247	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Dibenz(a,h)anthracene	0.00808		0.00183	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Fluoranthene	0.0604		0.00241	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Indeno(1,2,3-cd)pyrene	0.0423		0.00192	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Naphthalene	0.00516	J	0.00434	0.0213	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Phenanthrene	0.0200		0.00245	0.00638	1	06/12/2021 02:15	WG1686969
SR-DUP01	L1364028-14	Pyrene	0.0634		0.00213	0.00638	1	06/12/2021 02:15	WG1686969

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

Client ID	Lab Sample ID	Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
			mg/kg		mg/kg	mg/kg		date / time	
SR-DUP02	L1364028-15	Anthracene	0.0469		0.00237	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Acenaphthene	0.0181		0.00215	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Acenaphthylene	0.0283		0.00223	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Benzo(a)anthracene	0.251		0.00178	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Benzo(a)pyrene	0.341		0.00184	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Benzo(b)fluoranthene	0.402		0.00158	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Benzo(g,h,i)perylene	0.335		0.00182	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Benzo(k)fluoranthene	0.136		0.00221	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Chrysene	0.260		0.00239	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Dibenz(a,h)anthracene	0.0567		0.00177	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Fluoranthene	0.409		0.00234	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Fluorene	0.0113		0.00211	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Indeno(1,2,3-cd)pyrene	0.271		0.00186	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Naphthalene	0.0539		0.00420	0.0206	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Phenanthrene	0.162		0.00238	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	Pyrene	0.428		0.00206	0.00618	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	1-Methylnaphthalene	0.0263		0.00463	0.0206	1	06/12/2021 05:14	WG1686969
SR-DUP02	L1364028-15	2-Methylnaphthalene	0.0311		0.00440	0.0206	1	06/12/2021 05:14	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.7		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.74		0.103	1.03	5	06/16/2021 16:30	WG1687347
Cadmium	1.08		0.0884	1.03	5	06/16/2021 16:30	WG1687347
Lead	151		0.102	2.07	5	06/16/2021 16:30	WG1687347

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)	5.41		1.38	4.14	1	06/15/2021 04:50	WG1687176
Residual Range Organics (RRO)	40.2		3.44	10.3	1	06/15/2021 04:50	WG1687176
(S) o-Terphenyl	*82.3*			*18.0-148*		*06/15/2021 04:50*	WG1687176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.00238	0.00621	1	06/12/2021 16:18	WG1686664
Acenaphthene	U		0.00216	0.00621	1	06/12/2021 16:18	WG1686664
Acenaphthylene	U		0.00223	0.00621	1	06/12/2021 16:18	WG1686664
Benzo(a)anthracene	0.00720		0.00179	0.00621	1	06/12/2021 16:18	WG1686664
Benzo(a)pyrene	0.00709		0.00185	0.00621	1	06/12/2021 16:18	WG1686664
Benzo(b)fluoranthene	0.0111		0.00158	0.00621	1	06/12/2021 16:18	WG1686664
Benzo(g,h,i)perylene	0.0128		0.00183	0.00621	1	06/12/2021 16:18	WG1686664
Benzo(k)fluoranthene	0.00380	J	0.00222	0.00621	1	06/12/2021 16:18	WG1686664
Chrysene	0.00700		0.00240	0.00621	1	06/12/2021 16:18	WG1686664
Dibenz(a,h)anthracene	U		0.00178	0.00621	1	06/12/2021 16:18	WG1686664
Fluoranthene	0.0132		0.00235	0.00621	1	06/12/2021 16:18	WG1686664
Fluorene	U		0.00212	0.00621	1	06/12/2021 16:18	WG1686664
Indeno(1,2,3-cd)pyrene	0.00795		0.00187	0.00621	1	06/12/2021 16:18	WG1686664
Naphthalene	0.00576	J	0.00422	0.0207	1	06/12/2021 16:18	WG1686664
Phenanthrene	0.0106		0.00239	0.00621	1	06/12/2021 16:18	WG1686664
Pyrene	0.0121		0.00207	0.00621	1	06/12/2021 16:18	WG1686664
1-Methylnaphthalene	0.00582	J	0.00464	0.0207	1	06/12/2021 16:18	WG1686664
2-Methylnaphthalene	0.00740	J	0.00442	0.0207	1	06/12/2021 16:18	WG1686664
2-Chloronaphthalene	U		0.00482	0.0207	1	06/12/2021 16:18	WG1686664
(S) Nitrobenzene-d5	*41.0*			*14.0-149*		*06/12/2021 16:18*	WG1686664
(S) 2-Fluorobiphenyl	*52.4*			*34.0-125*		*06/12/2021 16:18*	WG1686664
(S) p-Terphenyl-d14	*70.8*			*23.0-120*		*06/12/2021 16:18*	WG1686664

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.3		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.52		0.103	1.03	5	06/16/2021 16:33	WG1687347
Cadmium	0.517	J	0.0879	1.03	5	06/16/2021 16:33	WG1687347
Lead	103		0.102	2.06	5	06/16/2021 16:33	WG1687347

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)	14.5		2.73	8.22	2	06/12/2021 18:38	WG1687176
Residual Range Organics (RRO)	138		6.85	20.6	2	06/12/2021 18:38	WG1687176
(S) o-Terphenyl	*67.8*			*18.0-148*		*06/12/2021 18:38*	WG1687176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0123		0.00236	0.00617	1	06/12/2021 16:38	WG1686664
Acenaphthene	0.00451	J	0.00215	0.00617	1	06/12/2021 16:38	WG1686664
Acenaphthylene	0.0109		0.00222	0.00617	1	06/12/2021 16:38	WG1686664
Benzo(a)anthracene	0.0729		0.00178	0.00617	1	06/12/2021 16:38	WG1686664
Benzo(a)pyrene	0.0831		0.00184	0.00617	1	06/12/2021 16:38	WG1686664
Benzo(b)fluoranthene	0.0918		0.00157	0.00617	1	06/12/2021 16:38	WG1686664
Benzo(g,h,i)perylene	0.0905		0.00182	0.00617	1	06/12/2021 16:38	WG1686664
Benzo(k)fluoranthene	0.0320		0.00221	0.00617	1	06/12/2021 16:38	WG1686664
Chrysene	0.0751		0.00238	0.00617	1	06/12/2021 16:38	WG1686664
Dibenz(a,h)anthracene	0.0143		0.00177	0.00617	1	06/12/2021 16:38	WG1686664
Fluoranthene	0.115		0.00233	0.00617	1	06/12/2021 16:38	WG1686664
Fluorene	0.00343	J	0.00211	0.00617	1	06/12/2021 16:38	WG1686664
Indeno(1,2,3-cd)pyrene	0.0617		0.00186	0.00617	1	06/12/2021 16:38	WG1686664
Naphthalene	0.0171	J	0.00419	0.0206	1	06/12/2021 16:38	WG1686664
Phenanthrene	0.0584		0.00237	0.00617	1	06/12/2021 16:38	WG1686664
Pyrene	0.115		0.00206	0.00617	1	06/12/2021 16:38	WG1686664
1-Methylnaphthalene	0.0105	J	0.00462	0.0206	1	06/12/2021 16:38	WG1686664
2-Methylnaphthalene	0.0138	J	0.00439	0.0206	1	06/12/2021 16:38	WG1686664
2-Chloronaphthalene	U		0.00479	0.0206	1	06/12/2021 16:38	WG1686664
(S) Nitrobenzene-d5	*39.2*			*14.0-149*		*06/12/2021 16:38*	WG1686664
(S) 2-Fluorobiphenyl	*53.9*			*34.0-125*		*06/12/2021 16:38*	WG1686664
(S) p-Terphenyl-d14	*63.0*			*23.0-120*		*06/12/2021 16:38*	WG1686664

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.3		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	10.6		0.106	1.06	5	06/16/2021 16:37	WG1687347
Cadmium	0.632	J	0.0906	1.06	5	06/16/2021 16:37	WG1687347
Lead	141		0.105	2.12	5	06/16/2021 16:37	WG1687347

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		70.5	212	50	06/15/2021 05:53	WG1687176
Residual Range Organics (RRO)	862		176	530	50	06/15/2021 05:53	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/15/2021 05:53*	WG1687176

Sample Narrative:

L1364028-03 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0175		0.00244	0.00636	1	06/12/2021 02:51	WG1686969
Acenaphthene	0.00888		0.00222	0.00636	1	06/12/2021 02:51	WG1686969
Acenaphthylene	0.0126		0.00229	0.00636	1	06/12/2021 02:51	WG1686969
Benzo(a)anthracene	0.105		0.00183	0.00636	1	06/12/2021 02:51	WG1686969
Benzo(a)pyrene	0.126		0.00190	0.00636	1	06/12/2021 02:51	WG1686969
Benzo(b)fluoranthene	0.148		0.00162	0.00636	1	06/12/2021 02:51	WG1686969
Benzo(g,h,i)perylene	0.111		0.00188	0.00636	1	06/12/2021 02:51	WG1686969
Benzo(k)fluoranthene	0.0569		0.00228	0.00636	1	06/12/2021 02:51	WG1686969
Chrysene	0.117		0.00246	0.00636	1	06/12/2021 02:51	WG1686969
Dibenz(a,h)anthracene	0.0207		0.00182	0.00636	1	06/12/2021 02:51	WG1686969
Fluoranthene	0.207		0.00241	0.00636	1	06/12/2021 02:51	WG1686969
Fluorene	0.00512	J	0.00217	0.00636	1	06/12/2021 02:51	WG1686969
Indeno(1,2,3-cd)pyrene	0.106		0.00192	0.00636	1	06/12/2021 02:51	WG1686969
Naphthalene	0.00685	J	0.00432	0.0212	1	06/12/2021 02:51	WG1686969
Phenanthrene	0.0959		0.00245	0.00636	1	06/12/2021 02:51	WG1686969
Pyrene	0.216		0.00212	0.00636	1	06/12/2021 02:51	WG1686969
1-Methylnaphthalene	0.00559	J	0.00476	0.0212	1	06/12/2021 02:51	WG1686969
2-Methylnaphthalene	0.00596	J	0.00453	0.0212	1	06/12/2021 02:51	WG1686969
2-Chloronaphthalene	U		0.00494	0.0212	1	06/12/2021 02:51	WG1686969
(S) Nitrobenzene-d5	*37.4*			*14.0-149*		*06/12/2021 02:51*	WG1686969
(S) 2-Fluorobiphenyl	*43.8*			*34.0-125*		*06/12/2021 02:51*	WG1686969
(S) p-Terphenyl-d14	*71.2*			*23.0-120*		*06/12/2021 02:51*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	23.3		0.116	1.16	5	06/16/2021 16:40	WG1687347
Cadmium	10.4		0.0995	1.16	5	06/16/2021 16:40	WG1687347
Lead	6990		11.5	233	500	06/16/2021 17:58	WG1687347

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)	81.7	J	77.4	233	50	06/12/2021 19:29	WG1687176
Residual Range Organics (RRO)	921		193	582	50	06/12/2021 19:29	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 19:29*	WG1687176

Sample Narrative:

L1364028-04 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0405		0.00268	0.00698	1	06/12/2021 03:09	WG1686969
Acenaphthene	0.0176		0.00243	0.00698	1	06/12/2021 03:09	WG1686969
Acenaphthylene	0.0178		0.00251	0.00698	1	06/12/2021 03:09	WG1686969
Benzo(a)anthracene	0.184		0.00201	0.00698	1	06/12/2021 03:09	WG1686969
Benzo(a)pyrene	0.213		0.00208	0.00698	1	06/12/2021 03:09	WG1686969
Benzo(b)fluoranthene	0.412		0.00178	0.00698	1	06/12/2021 03:09	WG1686969
Benzo(g,h,i)perylene	0.292		0.00206	0.00698	1	06/12/2021 03:09	WG1686969
Benzo(k)fluoranthene	0.128		0.00250	0.00698	1	06/12/2021 03:09	WG1686969
Chrysene	0.181		0.00270	0.00698	1	06/12/2021 03:09	WG1686969
Dibenz(a,h)anthracene	0.0499		0.00200	0.00698	1	06/12/2021 03:09	WG1686969
Fluoranthene	0.254		0.00264	0.00698	1	06/12/2021 03:09	WG1686969
Fluorene	0.0130		0.00239	0.00698	1	06/12/2021 03:09	WG1686969
Indeno(1,2,3-cd)pyrene	0.306		0.00211	0.00698	1	06/12/2021 03:09	WG1686969
Naphthalene	0.0373		0.00475	0.0233	1	06/12/2021 03:09	WG1686969
Phenanthrene	0.163		0.00269	0.00698	1	06/12/2021 03:09	WG1686969
Pyrene	0.266		0.00233	0.00698	1	06/12/2021 03:09	WG1686969
1-Methylnaphthalene	0.0276		0.00522	0.0233	1	06/12/2021 03:09	WG1686969
2-Methylnaphthalene	0.0378		0.00497	0.0233	1	06/12/2021 03:09	WG1686969
2-Chloronaphthalene	U		0.00542	0.0233	1	06/12/2021 03:09	WG1686969
(S) Nitrobenzene-d5	*39.2*			*14.0-149*		*06/12/2021 03:09*	WG1686969
(S) 2-Fluorobiphenyl	*36.8*			*34.0-125*		*06/12/2021 03:09*	WG1686969
(S) p-Terphenyl-d14	*59.7*			*23.0-120*		*06/12/2021 03:09*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.8		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.28	O1	0.106	1.06	5	06/16/2021 15:41	WG1687347
Cadmium	1.53	O1	0.0902	1.06	5	06/16/2021 15:41	WG1687347
Lead	359	J3 J5 O1	0.104	2.11	5	06/16/2021 15:41	WG1687347

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		561	1690	400	06/12/2021 19:42	WG1687176
Residual Range Organics (RRO)	4890		1400	4220	400	06/12/2021 19:42	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 19:42*	WG1687176

Sample Narrative:

L1364028-05 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0480		0.00243	0.00633	1	06/12/2021 05:49	WG1686969
Acenaphthene	0.00805		0.00221	0.00633	1	06/12/2021 05:49	WG1686969
Acenaphthylene	0.0490		0.00228	0.00633	1	06/12/2021 05:49	WG1686969
Benzo(a)anthracene	0.151		0.00183	0.00633	1	06/12/2021 05:49	WG1686969
Benzo(a)pyrene	0.242	J5	0.00189	0.00633	1	06/12/2021 05:49	WG1686969
Benzo(b)fluoranthene	0.341	V	0.00161	0.00633	1	06/12/2021 05:49	WG1686969
Benzo(g,h,i)perylene	0.232		0.00187	0.00633	1	06/12/2021 05:49	WG1686969
Benzo(k)fluoranthene	0.0956		0.00227	0.00633	1	06/12/2021 05:49	WG1686969
Chrysene	0.153		0.00245	0.00633	1	06/12/2021 05:49	WG1686969
Dibenz(a,h)anthracene	0.0441		0.00182	0.00633	1	06/12/2021 05:49	WG1686969
Fluoranthene	0.257		0.00240	0.00633	1	06/12/2021 05:49	WG1686969
Fluorene	0.00644		0.00216	0.00633	1	06/12/2021 05:49	WG1686969
Indeno(1,2,3-cd)pyrene	0.190		0.00191	0.00633	1	06/12/2021 05:49	WG1686969
Naphthalene	0.0212		0.00431	0.0211	1	06/12/2021 05:49	WG1686969
Phenanthrene	0.110		0.00244	0.00633	1	06/12/2021 05:49	WG1686969
Pyrene	0.279	J5	0.00211	0.00633	1	06/12/2021 05:49	WG1686969
1-Methylnaphthalene	0.0169	J	0.00474	0.0211	1	06/12/2021 05:49	WG1686969
2-Methylnaphthalene	0.0206	J	0.00451	0.0211	1	06/12/2021 05:49	WG1686969
2-Chloronaphthalene	U		0.00492	0.0211	1	06/12/2021 05:49	WG1686969
(S) Nitrobenzene-d5	*38.1*			*14.0-149*		*06/12/2021 05:49*	WG1686969
(S) 2-Fluorobiphenyl	*51.6*			*34.0-125*		*06/12/2021 05:49*	WG1686969
(S) p-Terphenyl-d14	*75.5*			*23.0-120*		*06/12/2021 05:49*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	17.9		0.107	1.07	5	06/16/2021 16:44	WG1687347
Cadmium	1.92		0.0917	1.07	5	06/16/2021 16:44	WG1687347
Lead	1590		0.106	2.14	5	06/16/2021 16:44	WG1687347

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		285	858	200	06/12/2021 20:08	WG1687176
Residual Range Organics (RRO)	2260		714	2140	200	06/12/2021 20:08	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 20:08*	WG1687176

Sample Narrative:

L1364028-06 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0229		0.00247	0.00643	1	06/12/2021 03:27	WG1686969
Acenaphthene	0.00270	J	0.00224	0.00643	1	06/12/2021 03:27	WG1686969
Acenaphthylene	0.0229		0.00232	0.00643	1	06/12/2021 03:27	WG1686969
Benzo(a)anthracene	0.0719		0.00185	0.00643	1	06/12/2021 03:27	WG1686969
Benzo(a)pyrene	0.142		0.00192	0.00643	1	06/12/2021 03:27	WG1686969
Benzo(b)fluoranthene	0.172		0.00164	0.00643	1	06/12/2021 03:27	WG1686969
Benzo(g,h,i)perylene	0.267		0.00190	0.00643	1	06/12/2021 03:27	WG1686969
Benzo(k)fluoranthene	0.0551		0.00231	0.00643	1	06/12/2021 03:27	WG1686969
Chrysene	0.0806		0.00249	0.00643	1	06/12/2021 03:27	WG1686969
Dibenz(a,h)anthracene	0.0356		0.00184	0.00643	1	06/12/2021 03:27	WG1686969
Fluoranthene	0.147		0.00243	0.00643	1	06/12/2021 03:27	WG1686969
Fluorene	0.00318	J	0.00220	0.00643	1	06/12/2021 03:27	WG1686969
Indeno(1,2,3-cd)pyrene	0.188		0.00194	0.00643	1	06/12/2021 03:27	WG1686969
Naphthalene	0.0243		0.00437	0.0214	1	06/12/2021 03:27	WG1686969
Phenanthrene	0.0657		0.00248	0.00643	1	06/12/2021 03:27	WG1686969
Pyrene	0.185		0.00214	0.00643	1	06/12/2021 03:27	WG1686969
1-Methylnaphthalene	0.0202	J	0.00481	0.0214	1	06/12/2021 03:27	WG1686969
2-Methylnaphthalene	0.0283		0.00458	0.0214	1	06/12/2021 03:27	WG1686969
2-Chloronaphthalene	U		0.00500	0.0214	1	06/12/2021 03:27	WG1686969
(S) Nitrobenzene-d5	*58.5*			*14.0-149*		*06/12/2021 03:27*	WG1686969
(S) 2-Fluorobiphenyl	*58.9*			*34.0-125*		*06/12/2021 03:27*	WG1686969
(S) p-Terphenyl-d14	*80.9*			*23.0-120*		*06/12/2021 03:27*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.33		0.109	1.09	5	06/16/2021 16:47	WG1687347
Cadmium	0.113	J	0.0934	1.09	5	06/16/2021 16:47	WG1687347
Lead	14.6		0.108	2.18	5	06/16/2021 16:47	WG1687347

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)	8.33		1.45	4.37	1	06/12/2021 18:26	WG1687176
Residual Range Organics (RRO)	62.6		3.64	10.9	1	06/12/2021 18:26	WG1687176
(S) o-Terphenyl	*66.3*			*18.0-148*		*06/12/2021 18:26*	WG1687176

Sample Narrative:

L1364028-07 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0537		0.00251	0.00655	1	06/12/2021 03:44	WG1686969
Acenaphthene	0.0233		0.00228	0.00655	1	06/12/2021 03:44	WG1686969
Acenaphthylene	0.0224		0.00236	0.00655	1	06/12/2021 03:44	WG1686969
Benzo(a)anthracene	0.331		0.00189	0.00655	1	06/12/2021 03:44	WG1686969
Benzo(a)pyrene	0.406		0.00195	0.00655	1	06/12/2021 03:44	WG1686969
Benzo(b)fluoranthene	0.462		0.00167	0.00655	1	06/12/2021 03:44	WG1686969
Benzo(g,h,i)perylene	0.448		0.00193	0.00655	1	06/12/2021 03:44	WG1686969
Benzo(k)fluoranthene	0.174		0.00235	0.00655	1	06/12/2021 03:44	WG1686969
Chrysene	0.348		0.00253	0.00655	1	06/12/2021 03:44	WG1686969
Dibenz(a,h)anthracene	0.0695		0.00188	0.00655	1	06/12/2021 03:44	WG1686969
Fluoranthene	0.584		0.00248	0.00655	1	06/12/2021 03:44	WG1686969
Fluorene	0.0114		0.00224	0.00655	1	06/12/2021 03:44	WG1686969
Indeno(1,2,3-cd)pyrene	0.367		0.00198	0.00655	1	06/12/2021 03:44	WG1686969
Naphthalene	0.00813	J	0.00446	0.0218	1	06/12/2021 03:44	WG1686969
Phenanthrene	0.202		0.00252	0.00655	1	06/12/2021 03:44	WG1686969
Pyrene	0.611		0.00218	0.00655	1	06/12/2021 03:44	WG1686969
1-Methylnaphthalene	U		0.00490	0.0218	1	06/12/2021 03:44	WG1686969
2-Methylnaphthalene	0.00507	J	0.00466	0.0218	1	06/12/2021 03:44	WG1686969
2-Chloronaphthalene	U		0.00509	0.0218	1	06/12/2021 03:44	WG1686969
(S) Nitrobenzene-d5	*61.7*			*14.0-149*		*06/12/2021 03:44*	WG1686969
(S) 2-Fluorobiphenyl	*52.0*			*34.0-125*		*06/12/2021 03:44*	WG1686969
(S) p-Terphenyl-d14	*79.3*			*23.0-120*		*06/12/2021 03:44*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.9		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	9.40		0.104	1.04	5	06/16/2021 16:51	WG1687347
Cadmium	1.48		0.0892	1.04	5	06/16/2021 16:51	WG1687347
Lead	154		0.103	2.09	5	06/16/2021 16:51	WG1687347

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		555	1670	400	06/12/2021 20:20	WG1687176
Residual Range Organics (RRO)	3050	J	1390	4170	400	06/12/2021 20:20	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 20:20*	WG1687176

Sample Narrative:

L1364028-08 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.165		0.00240	0.00626	1	06/12/2021 05:32	WG1686969
Acenaphthene	0.0649		0.00218	0.00626	1	06/12/2021 05:32	WG1686969
Acenaphthylene	0.0639		0.00225	0.00626	1	06/12/2021 05:32	WG1686969
Benzo(a)anthracene	0.937		0.00180	0.00626	1	06/12/2021 05:32	WG1686969
Benzo(a)pyrene	1.18		0.00187	0.00626	1	06/12/2021 05:32	WG1686969
Benzo(b)fluoranthene	1.43		0.00160	0.00626	1	06/12/2021 05:32	WG1686969
Benzo(g,h,i)perylene	0.751		0.00185	0.00626	1	06/12/2021 05:32	WG1686969
Benzo(k)fluoranthene	0.513		0.00224	0.00626	1	06/12/2021 05:32	WG1686969
Chrysene	0.994		0.00242	0.00626	1	06/12/2021 05:32	WG1686969
Dibenz(a,h)anthracene	0.150		0.00179	0.00626	1	06/12/2021 05:32	WG1686969
Fluoranthene	1.63		0.00237	0.00626	1	06/12/2021 05:32	WG1686969
Fluorene	0.0320		0.00214	0.00626	1	06/12/2021 05:32	WG1686969
Indeno(1,2,3-cd)pyrene	0.704		0.00189	0.00626	1	06/12/2021 05:32	WG1686969
Naphthalene	0.0222		0.00426	0.0209	1	06/12/2021 05:32	WG1686969
Phenanthrene	0.593		0.00241	0.00626	1	06/12/2021 05:32	WG1686969
Pyrene	1.70		0.00209	0.00626	1	06/12/2021 05:32	WG1686969
1-Methylnaphthalene	0.0141	J	0.00468	0.0209	1	06/12/2021 05:32	WG1686969
2-Methylnaphthalene	0.0146	J	0.00445	0.0209	1	06/12/2021 05:32	WG1686969
2-Chloronaphthalene	U		0.00486	0.0209	1	06/12/2021 05:32	WG1686969
(S) Nitrobenzene-d5	*67.6*			*14.0-149*		*06/12/2021 05:32*	WG1686969
(S) 2-Fluorobiphenyl	*64.7*			*34.0-125*		*06/12/2021 05:32*	WG1686969
(S) p-Terphenyl-d14	*98.2*			*23.0-120*		*06/12/2021 05:32*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.9		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	21.8		0.107	1.07	5	06/16/2021 16:54	WG1687347
Cadmium	1.13		0.0911	1.07	5	06/16/2021 16:54	WG1687347
Lead	155		0.105	2.13	5	06/16/2021 16:54	WG1687347

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		567	1700	400	06/12/2021 20:33	WG1687176
Residual Range Organics (RRO)	4050	J	1420	4260	400	06/12/2021 20:33	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 20:33*	WG1687176

Sample Narrative:

L1364028-09 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0788		0.00245	0.00639	1	06/12/2021 04:02	WG1686969
Acenaphthene	0.0212		0.00223	0.00639	1	06/12/2021 04:02	WG1686969
Acenaphthylene	0.0838		0.00230	0.00639	1	06/12/2021 04:02	WG1686969
Benzo(a)anthracene	0.344		0.00184	0.00639	1	06/12/2021 04:02	WG1686969
Benzo(a)pyrene	0.428		0.00191	0.00639	1	06/12/2021 04:02	WG1686969
Benzo(b)fluoranthene	0.536		0.00163	0.00639	1	06/12/2021 04:02	WG1686969
Benzo(g,h,i)perylene	0.387		0.00189	0.00639	1	06/12/2021 04:02	WG1686969
Benzo(k)fluoranthene	0.179		0.00229	0.00639	1	06/12/2021 04:02	WG1686969
Chrysene	0.353		0.00247	0.00639	1	06/12/2021 04:02	WG1686969
Dibenz(a,h)anthracene	0.0729		0.00183	0.00639	1	06/12/2021 04:02	WG1686969
Fluoranthene	0.642		0.00242	0.00639	1	06/12/2021 04:02	WG1686969
Fluorene	0.0151		0.00218	0.00639	1	06/12/2021 04:02	WG1686969
Indeno(1,2,3-cd)pyrene	0.363		0.00193	0.00639	1	06/12/2021 04:02	WG1686969
Naphthalene	0.0263		0.00435	0.0213	1	06/12/2021 04:02	WG1686969
Phenanthrene	0.265		0.00246	0.00639	1	06/12/2021 04:02	WG1686969
Pyrene	0.646		0.00213	0.00639	1	06/12/2021 04:02	WG1686969
1-Methylnaphthalene	0.0157	J	0.00478	0.0213	1	06/12/2021 04:02	WG1686969
2-Methylnaphthalene	0.0196	J	0.00455	0.0213	1	06/12/2021 04:02	WG1686969
2-Chloronaphthalene	U		0.00496	0.0213	1	06/12/2021 04:02	WG1686969
(S) Nitrobenzene-d5	*70.2*			*14.0-149*		*06/12/2021 04:02*	WG1686969
(S) 2-Fluorobiphenyl	*54.1*			*34.0-125*		*06/12/2021 04:02*	WG1686969
(S) p-Terphenyl-d14	*81.0*			*23.0-120*		*06/12/2021 04:02*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.1		1	06/10/2021 23:21	WG1685996

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.69		0.105	1.05	5	06/16/2021 17:25	WG1687347
Cadmium	0.244	J	0.0899	1.05	5	06/16/2021 17:25	WG1687347
Lead	80.2		0.104	2.10	5	06/16/2021 17:25	WG1687347

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		559	1680	400	06/12/2021 20:46	WG1687176
Residual Range Organics (RRO)	5010		1400	4210	400	06/12/2021 20:46	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 20:46*	WG1687176

Sample Narrative:

L1364028-10 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0181		0.00242	0.00631	1	06/12/2021 04:20	WG1686969
Acenaphthene	0.00343	J	0.00220	0.00631	1	06/12/2021 04:20	WG1686969
Acenaphthylene	0.0255		0.00227	0.00631	1	06/12/2021 04:20	WG1686969
Benzo(a)anthracene	0.0737		0.00182	0.00631	1	06/12/2021 04:20	WG1686969
Benzo(a)pyrene	0.148		0.00188	0.00631	1	06/12/2021 04:20	WG1686969
Benzo(b)fluoranthene	0.166		0.00161	0.00631	1	06/12/2021 04:20	WG1686969
Benzo(g,h,i)perylene	0.192		0.00186	0.00631	1	06/12/2021 04:20	WG1686969
Benzo(k)fluoranthene	0.0559		0.00226	0.00631	1	06/12/2021 04:20	WG1686969
Chrysene	0.0789		0.00244	0.00631	1	06/12/2021 04:20	WG1686969
Dibenz(a,h)anthracene	0.0242		0.00181	0.00631	1	06/12/2021 04:20	WG1686969
Fluoranthene	0.122		0.00239	0.00631	1	06/12/2021 04:20	WG1686969
Fluorene	0.00237	J	0.00216	0.00631	1	06/12/2021 04:20	WG1686969
Indeno(1,2,3-cd)pyrene	0.163		0.00190	0.00631	1	06/12/2021 04:20	WG1686969
Naphthalene	0.00811	J	0.00429	0.0210	1	06/12/2021 04:20	WG1686969
Phenanthrene	0.0455		0.00243	0.00631	1	06/12/2021 04:20	WG1686969
Pyrene	0.148		0.00210	0.00631	1	06/12/2021 04:20	WG1686969
1-Methylnaphthalene	0.00531	J	0.00472	0.0210	1	06/12/2021 04:20	WG1686969
2-Methylnaphthalene	0.00525	J	0.00449	0.0210	1	06/12/2021 04:20	WG1686969
2-Chloronaphthalene	U		0.00490	0.0210	1	06/12/2021 04:20	WG1686969
(S) Nitrobenzene-d5	*69.4*			*14.0-149*		*06/12/2021 04:20*	WG1686969
(S) 2-Fluorobiphenyl	*65.2*			*34.0-125*		*06/12/2021 04:20*	WG1686969
(S) p-Terphenyl-d14	*91.6*			*23.0-120*		*06/12/2021 04:20*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.8		1	06/10/2021 23:04	WG1686001

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.96		0.104	1.04	5	06/16/2021 17:28	WG1687347
Cadmium	0.250	J	0.0892	1.04	5	06/16/2021 17:28	WG1687347
Lead	50.9		0.103	2.09	5	06/16/2021 17:28	WG1687347

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		278	835	200	06/12/2021 21:11	WG1687176
Residual Range Organics (RRO)	2230		695	2090	200	06/12/2021 21:11	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 21:11*	WG1687176

Sample Narrative:

L1364028-11 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0187		0.00240	0.00626	1	06/12/2021 04:38	WG1686969
Acenaphthene	0.00794		0.00218	0.00626	1	06/12/2021 04:38	WG1686969
Acenaphthylene	0.0143		0.00225	0.00626	1	06/12/2021 04:38	WG1686969
Benzo(a)anthracene	0.102		0.00181	0.00626	1	06/12/2021 04:38	WG1686969
Benzo(a)pyrene	0.158		0.00187	0.00626	1	06/12/2021 04:38	WG1686969
Benzo(b)fluoranthene	0.185		0.00160	0.00626	1	06/12/2021 04:38	WG1686969
Benzo(g,h,i)perylene	0.192		0.00185	0.00626	1	06/12/2021 04:38	WG1686969
Benzo(k)fluoranthene	0.0632		0.00224	0.00626	1	06/12/2021 04:38	WG1686969
Chrysene	0.105		0.00242	0.00626	1	06/12/2021 04:38	WG1686969
Dibenz(a,h)anthracene	0.0345		0.00180	0.00626	1	06/12/2021 04:38	WG1686969
Fluoranthene	0.178		0.00237	0.00626	1	06/12/2021 04:38	WG1686969
Fluorene	0.00500	J	0.00214	0.00626	1	06/12/2021 04:38	WG1686969
Indeno(1,2,3-cd)pyrene	0.172		0.00189	0.00626	1	06/12/2021 04:38	WG1686969
Naphthalene	0.00622	J	0.00426	0.0209	1	06/12/2021 04:38	WG1686969
Phenanthrene	0.0662		0.00241	0.00626	1	06/12/2021 04:38	WG1686969
Pyrene	0.199		0.00209	0.00626	1	06/12/2021 04:38	WG1686969
1-Methylnaphthalene	0.0116	J	0.00469	0.0209	1	06/12/2021 04:38	WG1686969
2-Methylnaphthalene	0.0105	J	0.00446	0.0209	1	06/12/2021 04:38	WG1686969
2-Chloronaphthalene	U		0.00486	0.0209	1	06/12/2021 04:38	WG1686969
(S) Nitrobenzene-d5	*61.3*			*14.0-149*		*06/12/2021 04:38*	WG1686969
(S) 2-Fluorobiphenyl	*65.6*			*34.0-125*		*06/12/2021 04:38*	WG1686969
(S) p-Terphenyl-d14	*79.4*			*23.0-120*		*06/12/2021 04:38*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	06/10/2021 23:04	WG1686001

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.30		0.104	1.04	5	06/16/2021 17:32	WG1687347
Cadmium	0.309	J	0.0887	1.04	5	06/16/2021 17:32	WG1687347
Lead	38.7		0.103	2.07	5	06/16/2021 17:32	WG1687347

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		13.8	41.5	10	06/12/2021 21:24	WG1687176
Residual Range Organics (RRO)	66.1	J	34.5	104	10	06/12/2021 21:24	WG1687176
(S) o-Terphenyl	*0.000*	J2		*18.0-148*		*06/12/2021 21:24*	WG1687176

Sample Narrative:

L1364028-12 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.00266	J	0.00239	0.00622	1	06/12/2021 02:33	WG1686969
Acenaphthene	U		0.00217	0.00622	1	06/12/2021 02:33	WG1686969
Acenaphthylene	0.00326	J	0.00224	0.00622	1	06/12/2021 02:33	WG1686969
Benzo(a)anthracene	0.0121		0.00179	0.00622	1	06/12/2021 02:33	WG1686969
Benzo(a)pyrene	0.0163		0.00186	0.00622	1	06/12/2021 02:33	WG1686969
Benzo(b)fluoranthene	0.0295		0.00159	0.00622	1	06/12/2021 02:33	WG1686969
Benzo(g,h,i)perylene	0.0267		0.00184	0.00622	1	06/12/2021 02:33	WG1686969
Benzo(k)fluoranthene	0.00968		0.00223	0.00622	1	06/12/2021 02:33	WG1686969
Chrysene	0.0156		0.00241	0.00622	1	06/12/2021 02:33	WG1686969
Dibenz(a,h)anthracene	0.00476	J	0.00178	0.00622	1	06/12/2021 02:33	WG1686969
Fluoranthene	0.0295		0.00235	0.00622	1	06/12/2021 02:33	WG1686969
Fluorene	U		0.00213	0.00622	1	06/12/2021 02:33	WG1686969
Indeno(1,2,3-cd)pyrene	0.0226		0.00188	0.00622	1	06/12/2021 02:33	WG1686969
Naphthalene	0.00451	J	0.00423	0.0207	1	06/12/2021 02:33	WG1686969
Phenanthrene	0.0126		0.00240	0.00622	1	06/12/2021 02:33	WG1686969
Pyrene	0.0311		0.00207	0.00622	1	06/12/2021 02:33	WG1686969
1-Methylnaphthalene	U		0.00466	0.0207	1	06/12/2021 02:33	WG1686969
2-Methylnaphthalene	U		0.00443	0.0207	1	06/12/2021 02:33	WG1686969
2-Chloronaphthalene	U		0.00483	0.0207	1	06/12/2021 02:33	WG1686969
(S) Nitrobenzene-d5	*42.8*			*14.0-149*		*06/12/2021 02:33*	WG1686969
(S) 2-Fluorobiphenyl	*46.6*			*34.0-125*		*06/12/2021 02:33*	WG1686969
(S) p-Terphenyl-d14	*77.6*			*23.0-120*		*06/12/2021 02:33*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.7		1	06/10/2021 23:04	WG1686001

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.81		0.103	1.03	5	06/16/2021 17:35	WG1687347
Cadmium	0.816	J	0.0885	1.03	5	06/16/2021 17:35	WG1687347
Lead	107		0.102	2.07	5	06/16/2021 17:35	WG1687347

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		138	414	100	06/12/2021 21:36	WG1687176
Residual Range Organics (RRO)	1670		345	1030	100	06/12/2021 21:36	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 21:36*	WG1687176

Sample Narrative:

L1364028-13 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.118		0.00238	0.00621	1	06/12/2021 04:56	WG1686969
Acenaphthene	0.0462		0.00216	0.00621	1	06/12/2021 04:56	WG1686969
Acenaphthylene	0.0684		0.00223	0.00621	1	06/12/2021 04:56	WG1686969
Benzo(a)anthracene	0.384		0.00179	0.00621	1	06/12/2021 04:56	WG1686969
Benzo(a)pyrene	0.530		0.00185	0.00621	1	06/12/2021 04:56	WG1686969
Benzo(b)fluoranthene	0.631		0.00158	0.00621	1	06/12/2021 04:56	WG1686969
Benzo(g,h,i)perylene	0.530		0.00183	0.00621	1	06/12/2021 04:56	WG1686969
Benzo(k)fluoranthene	0.201		0.00222	0.00621	1	06/12/2021 04:56	WG1686969
Chrysene	0.373		0.00240	0.00621	1	06/12/2021 04:56	WG1686969
Dibenz(a,h)anthracene	0.0878		0.00178	0.00621	1	06/12/2021 04:56	WG1686969
Fluoranthene	0.697		0.00235	0.00621	1	06/12/2021 04:56	WG1686969
Fluorene	0.0276		0.00212	0.00621	1	06/12/2021 04:56	WG1686969
Indeno(1,2,3-cd)pyrene	0.432		0.00187	0.00621	1	06/12/2021 04:56	WG1686969
Naphthalene	0.0191	J	0.00422	0.0207	1	06/12/2021 04:56	WG1686969
Phenanthrene	0.336		0.00239	0.00621	1	06/12/2021 04:56	WG1686969
Pyrene	0.736		0.00207	0.00621	1	06/12/2021 04:56	WG1686969
1-Methylnaphthalene	0.0122	J	0.00465	0.0207	1	06/12/2021 04:56	WG1686969
2-Methylnaphthalene	0.0164	J	0.00442	0.0207	1	06/12/2021 04:56	WG1686969
2-Chloronaphthalene	U		0.00482	0.0207	1	06/12/2021 04:56	WG1686969
(S) Nitrobenzene-d5	*68.0*			*14.0-149*		*06/12/2021 04:56*	WG1686969
(S) 2-Fluorobiphenyl	*62.1*			*34.0-125*		*06/12/2021 04:56*	WG1686969
(S) p-Terphenyl-d14	*81.0*			*23.0-120*		*06/12/2021 04:56*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.1		1	06/10/2021 23:04	WG1686001

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.72		0.106	1.06	5	06/16/2021 17:38	WG1687347
Cadmium	1.04	J	0.0908	1.06	5	06/16/2021 17:38	WG1687347
Lead	321		0.105	2.13	5	06/16/2021 17:38	WG1687347

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)	11.3		2.83	8.50	2	06/15/2021 05:15	WG1687176
Residual Range Organics (RRO)	108		7.08	21.3	2	06/15/2021 05:15	WG1687176
(S) o-Terphenyl	*90.5*			*18.0-148*		*06/15/2021 05:15*	WG1687176

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.00495	J	0.00244	0.00638	1	06/12/2021 02:15	WG1686969
Acenaphthene	U		0.00222	0.00638	1	06/12/2021 02:15	WG1686969
Acenaphthylene	0.00843		0.00230	0.00638	1	06/12/2021 02:15	WG1686969
Benzo(a)anthracene	0.0369		0.00184	0.00638	1	06/12/2021 02:15	WG1686969
Benzo(a)pyrene	0.0451		0.00190	0.00638	1	06/12/2021 02:15	WG1686969
Benzo(b)fluoranthene	0.0579		0.00163	0.00638	1	06/12/2021 02:15	WG1686969
Benzo(g,h,i)perylene	0.0431		0.00188	0.00638	1	06/12/2021 02:15	WG1686969
Benzo(k)fluoranthene	0.0220		0.00228	0.00638	1	06/12/2021 02:15	WG1686969
Chrysene	0.0380		0.00247	0.00638	1	06/12/2021 02:15	WG1686969
Dibenz(a,h)anthracene	0.00808		0.00183	0.00638	1	06/12/2021 02:15	WG1686969
Fluoranthene	0.0604		0.00241	0.00638	1	06/12/2021 02:15	WG1686969
Fluorene	U		0.00218	0.00638	1	06/12/2021 02:15	WG1686969
Indeno(1,2,3-cd)pyrene	0.0423		0.00192	0.00638	1	06/12/2021 02:15	WG1686969
Naphthalene	0.00516	J	0.00434	0.0213	1	06/12/2021 02:15	WG1686969
Phenanthrene	0.0200		0.00245	0.00638	1	06/12/2021 02:15	WG1686969
Pyrene	0.0634		0.00213	0.00638	1	06/12/2021 02:15	WG1686969
1-Methylnaphthalene	U		0.00477	0.0213	1	06/12/2021 02:15	WG1686969
2-Methylnaphthalene	U		0.00454	0.0213	1	06/12/2021 02:15	WG1686969
2-Chloronaphthalene	U		0.00495	0.0213	1	06/12/2021 02:15	WG1686969
(S) Nitrobenzene-d5	*56.4*			*14.0-149*		*06/12/2021 02:15*	WG1686969
(S) 2-Fluorobiphenyl	*54.4*			*34.0-125*		*06/12/2021 02:15*	WG1686969
(S) p-Terphenyl-d14	*72.0*			*23.0-120*		*06/12/2021 02:15*	WG1686969

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.1		1	06/10/2021 23:04	WG1686001

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	10.1		0.103	1.03	5	06/16/2021 17:42	WG1687347
Cadmium	1.01	J	0.0881	1.03	5	06/16/2021 17:42	WG1687347
Lead	120		0.102	2.06	5	06/16/2021 17:42	WG1687347

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		274	824	200	06/12/2021 22:14	WG1687176
Residual Range Organics (RRO)	2050	J	686	2060	200	06/12/2021 22:14	WG1687176
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*06/12/2021 22:14*	WG1687176

Sample Narrative:

L1364028-15 WG1687176: Cannot run at lower dilution due to viscosity of extract

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	0.0469		0.00237	0.00618	1	06/12/2021 05:14	WG1686969
Acenaphthene	0.0181		0.00215	0.00618	1	06/12/2021 05:14	WG1686969
Acenaphthylene	0.0283		0.00223	0.00618	1	06/12/2021 05:14	WG1686969
Benzo(a)anthracene	0.251		0.00178	0.00618	1	06/12/2021 05:14	WG1686969
Benzo(a)pyrene	0.341		0.00184	0.00618	1	06/12/2021 05:14	WG1686969
Benzo(b)fluoranthene	0.402		0.00158	0.00618	1	06/12/2021 05:14	WG1686969
Benzo(g,h,i)perylene	0.335		0.00182	0.00618	1	06/12/2021 05:14	WG1686969
Benzo(k)fluoranthene	0.136		0.00221	0.00618	1	06/12/2021 05:14	WG1686969
Chrysene	0.260		0.00239	0.00618	1	06/12/2021 05:14	WG1686969
Dibenz(a,h)anthracene	0.0567		0.00177	0.00618	1	06/12/2021 05:14	WG1686969
Fluoranthene	0.409		0.00234	0.00618	1	06/12/2021 05:14	WG1686969
Fluorene	0.0113		0.00211	0.00618	1	06/12/2021 05:14	WG1686969
Indeno(1,2,3-cd)pyrene	0.271		0.00186	0.00618	1	06/12/2021 05:14	WG1686969
Naphthalene	0.0539		0.00420	0.0206	1	06/12/2021 05:14	WG1686969
Phenanthrene	0.162		0.00238	0.00618	1	06/12/2021 05:14	WG1686969
Pyrene	0.428		0.00206	0.00618	1	06/12/2021 05:14	WG1686969
1-Methylnaphthalene	0.0263		0.00463	0.0206	1	06/12/2021 05:14	WG1686969
2-Methylnaphthalene	0.0311		0.00440	0.0206	1	06/12/2021 05:14	WG1686969
2-Chloronaphthalene	U		0.00480	0.0206	1	06/12/2021 05:14	WG1686969
(S) Nitrobenzene-d5	*0.000*	J2		*14.0-149*		*06/12/2021 05:14*	WG1686969
(S) 2-Fluorobiphenyl	*58.9*			*34.0-125*		*06/12/2021 05:14*	WG1686969
(S) p-Terphenyl-d14	*79.5*			*23.0-120*		*06/12/2021 05:14*	WG1686969

Sample Narrative:

L1364028-15 WG1686969: Surrogate failure due to matrix interference

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	U		0.180	2.00	1	06/24/2021 18:45	WG1692858
Cadmium	U		0.150	1.00	1	06/24/2021 18:45	WG1692858
Lead	U		0.849	2.00	1	06/24/2021 18:45	WG1692858

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)	U		66.7	200	1	06/16/2021 19:00	WG1688283
Residual Range Organics (RRO)	U		83.3	250	1	06/16/2021 19:00	WG1688283
(S) o-Terphenyl	*107*			*52.0-156*		*06/16/2021 19:00*	WG1688283

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	06/12/2021 20:07	WG1687383
Acenaphthene	U		0.0190	0.0500	1	06/12/2021 20:07	WG1687383
Acenaphthylene	U		0.0171	0.0500	1	06/12/2021 20:07	WG1687383
Benzo(a)anthracene	U		0.0203	0.0500	1	06/12/2021 20:07	WG1687383
Benzo(a)pyrene	U		0.0184	0.0500	1	06/12/2021 20:07	WG1687383
Benzo(b)fluoranthene	U		0.0168	0.0500	1	06/12/2021 20:07	WG1687383
Benzo(g,h,i)perylene	U		0.0184	0.0500	1	06/12/2021 20:07	WG1687383
Benzo(k)fluoranthene	U		0.0202	0.0500	1	06/12/2021 20:07	WG1687383
Chrysene	U		0.0179	0.0500	1	06/12/2021 20:07	WG1687383
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	06/12/2021 20:07	WG1687383
Fluoranthene	U		0.0270	0.100	1	06/12/2021 20:07	WG1687383
Fluorene	U		0.0169	0.0500	1	06/12/2021 20:07	WG1687383
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	06/12/2021 20:07	WG1687383
Naphthalene	U		0.0917	0.250	1	06/12/2021 20:07	WG1687383
Phenanthrene	U		0.0180	0.0500	1	06/12/2021 20:07	WG1687383
Pyrene	U		0.0169	0.0500	1	06/12/2021 20:07	WG1687383
1-Methylnaphthalene	U		0.0687	0.250	1	06/12/2021 20:07	WG1687383
2-Methylnaphthalene	U		0.0674	0.250	1	06/12/2021 20:07	WG1687383
2-Chloronaphthalene	U		0.0682	0.250	1	06/12/2021 20:07	WG1687383
(S) Nitrobenzene-d5	*101*			*31.0-160*		*06/12/2021 20:07*	WG1687383
(S) 2-Fluorobiphenyl	*108*			*48.0-148*		*06/12/2021 20:07*	WG1687383
(S) p-Terphenyl-d14	*127*			*37.0-146*		*06/12/2021 20:07*	WG1687383

Method Blank (MB)

(MB) R3666283-1 06/10/21 23:21

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

L1364028-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1364028-05 06/10/21 23:21 • (DUP) R3666283-3 06/10/21 23:21

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	94.8	92.8	1	2.04		10

Laboratory Control Sample (LCS)

(LCS) R3666283-2 06/10/21 23:21

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) R3666280-1 06/10/21 23:04

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

L1364028-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1364028-11 06/10/21 23:04 • (DUP) R3666280-3 06/10/21 23:04

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	95.8	96.5	1	0.706		10

Laboratory Control Sample (LCS)

(LCS) R3666280-2 06/10/21 23:04

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) R3668211-1 06/16/21 15:33

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Arsenic	U		0.100	1.00
Cadmium	U		0.0855	1.00
Lead	U		0.0990	2.00

Laboratory Control Sample (LCS)

(LCS) R3668211-2 06/16/21 15:37

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Arsenic	100	101	101	80.0-120	
Cadmium	100	104	104	80.0-120	
Lead	100	99.7	99.7	80.0-120	

L1364028-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1364028-05 06/16/21 15:41 • (MS) R3668211-5 06/16/21 15:51 • (MSD) R3668211-6 06/16/21 15:54

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Arsenic	106	8.28	108	109	94.2	95.7	5	75.0-125			1.39	20
Cadmium	106	1.53	110	117	103	109	5	75.0-125			5.95	20
Lead	106	359	3750	510	3210	143	5	75.0-125	J5	J3 J5	152	20

Method Blank (MB)

(MB) R3671515-1 06/24/21 12:48

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Arsenic	U		0.180	2.00
Cadmium	U		0.150	1.00
Lead	U		0.849	2.00

Laboratory Control Sample (LCS)

(LCS) R3671515-2 06/24/21 12:52

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Arsenic	50.0	46.8	93.6	80.0-120	
Cadmium	50.0	49.6	99.2	80.0-120	
Lead	50.0	47.6	95.2	80.0-120	

L1364065-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1364065-01 06/24/21 12:55 • (MS) R3671515-4 06/24/21 13:02 • (MSD) R3671515-5 06/24/21 13:05

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Arsenic	50.0	3.66	49.3	49.3	91.4	91.3	1	75.0-125			0.107	20
Cadmium	50.0	U	48.8	48.7	97.6	97.4	1	75.0-125			0.213	20
Lead	50.0	2.21	45.5	45.5	86.6	86.5	1	75.0-125			0.117	20

Method Blank (MB)

(MB) R3667209-1 06/12/21 12:57

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	*64.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3667209-2 06/12/21 13:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	35.9	71.8	50.0-150	
(S) o-Terphenyl			*85.9*	*18.0-148*	

Method Blank (MB)

(MB) R3667756-1 06/15/21 21:16

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	*133*			*52.0-156*

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

(LCS) R3667756-2 06/15/21 21:42 • (LCSD) R3667756-3 06/15/21 22:08

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 %
Diesel Range Organics (DRO)	1500	1630	1740	109	116	50.0-150			6.53	20
(S) o-Terphenyl				*109*	*114*	*52.0-156*				

Method Blank (MB)

(MB) R3666648-2 06/12/21 12:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	*29.7*			*14.0-149*
(S) 2-Fluorobiphenyl	*44.0*			*34.0-125*
(S) p-Terphenyl-d14	*72.1*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3666648-1 06/12/21 12:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0580	72.5	50.0-126	
Acenaphthene	0.0800	0.0511	63.9	50.0-120	
Acenaphthylene	0.0800	0.0521	65.1	50.0-120	
Benzo(a)anthracene	0.0800	0.0557	69.6	45.0-120	
Benzo(a)pyrene	0.0800	0.0472	59.0	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0504	63.0	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0484	60.5	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0513	64.1	49.0-125	
Chrysene	0.0800	0.0594	74.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0495	61.9	47.0-125	
Fluoranthene	0.0800	0.0623	77.9	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3666648-1 06/12/21 12:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0570	71.3	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0488	61.0	46.0-125	
Naphthalene	0.0800	0.0423	52.9	50.0-120	
Phenanthrene	0.0800	0.0581	72.6	47.0-120	
Pyrene	0.0800	0.0552	69.0	43.0-123	
1-Methylnaphthalene	0.0800	0.0441	55.1	51.0-121	
2-Methylnaphthalene	0.0800	0.0418	52.3	50.0-120	
2-Chloronaphthalene	0.0800	0.0539	67.4	50.0-120	
(S) Nitrobenzene-d5			*44.0*	*14.0-149*	
(S) 2-Fluorobiphenyl			*55.8*	*34.0-125*	
(S) p-Terphenyl-d14			*73.3*	*23.0-120*	

L1364127-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1364127-02 06/12/21 17:38 • (MS) R3666648-3 06/12/21 17:57 • (MSD) R3666648-4 06/12/21 18:17

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0816	0.0195	0.0709	0.0614	63.0	51.4	1	10.0-145			14.3	30
Acenaphthene	0.0816	0.00706	0.0478	0.0488	49.9	51.2	1	14.0-127			2.16	27
Acenaphthylene	0.0816	0.00420	0.0472	0.0520	52.6	58.5	1	21.0-124			9.66	25
Benzo(a)anthracene	0.0816	0.109	0.133	0.109	29.3	0.000	1	10.0-139		J6	19.7	30
Benzo(a)pyrene	0.0816	0.107	0.121	0.0958	16.6	0.000	1	10.0-141		J6	23.1	31
Benzo(b)fluoranthene	0.0816	0.131	0.134	0.102	3.83	0.000	1	10.0-140	J6	J6	27.2	36
Benzo(g,h,i)perylene	0.0816	0.0801	0.0987	0.0725	22.8	0.000	1	10.0-140		J6	30.7	33
Benzo(k)fluoranthene	0.0816	0.0516	0.0791	0.0673	33.7	19.1	1	10.0-137			16.2	31
Chrysene	0.0816	0.118	0.162	0.121	54.8	3.83	1	10.0-145		J6	29.4	30
Dibenz(a,h)anthracene	0.0816	0.0171	0.0484	0.0426	38.4	31.2	1	10.0-132			12.8	31
Fluoranthene	0.0816	0.287	0.261	0.200	0.000	0.000	1	10.0-153	J6	J6	26.6	33
Fluorene	0.0816	0.00580	0.0549	0.0543	60.1	59.5	1	11.0-130			0.953	29
Indeno(1,2,3-cd)pyrene	0.0816	0.0853	0.0952	0.0758	12.1	0.000	1	10.0-137		J6	22.7	32
Naphthalene	0.0816	U	0.0347	0.0389	42.5	47.7	1	10.0-135			11.6	27
Phenanthrene	0.0816	0.145	0.159	0.112	17.9	0.000	1	10.0-144		J3 J6	34.5	31
Pyrene	0.0816	0.231	0.218	0.171	0.000	0.000	1	10.0-148	J6	J6	24.1	35
1-Methylnaphthalene	0.0816	U	0.0375	0.0415	45.9	50.9	1	10.0-142			10.3	28
2-Methylnaphthalene	0.0816	U	0.0352	0.0389	43.1	47.7	1	10.0-137			10.1	28
2-Chloronaphthalene	0.0816	U	0.0412	0.0452	50.5	55.4	1	29.0-120			9.16	24
(S) Nitrobenzene-d5					*31.0*	*33.0*		*14.0-149*				
(S) 2-Fluorobiphenyl					*43.3*	*44.9*		*34.0-125*				
(S) p-Terphenyl-d14					*59.5*	*60.0*		*23.0-120*				

Method Blank (MB)

(MB) R3666678-2 06/11/21 23:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	*50.8*			*14.0-149*
(S) 2-Fluorobiphenyl	*58.0*			*34.0-125*
(S) p-Terphenyl-d14	*93.9*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3666678-1 06/11/21 23:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0487	60.9	50.0-126	
Acenaphthene	0.0800	0.0521	65.1	50.0-120	
Acenaphthylene	0.0800	0.0505	63.1	50.0-120	
Benzo(a)anthracene	0.0800	0.0565	70.6	45.0-120	
Benzo(a)pyrene	0.0800	0.0524	65.5	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0581	72.6	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0570	71.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0602	75.3	49.0-125	
Chrysene	0.0800	0.0612	76.5	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0543	67.9	47.0-125	
Fluoranthene	0.0800	0.0591	73.9	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3666678-1 06/11/21 23:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0545	68.1	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0551	68.9	46.0-125	
Naphthalene	0.0800	0.0479	59.9	50.0-120	
Phenanthrene	0.0800	0.0503	62.9	47.0-120	
Pyrene	0.0800	0.0563	70.4	43.0-123	
1-Methylnaphthalene	0.0800	0.0551	68.9	51.0-121	
2-Methylnaphthalene	0.0800	0.0503	62.9	50.0-120	
2-Chloronaphthalene	0.0800	0.0481	60.1	50.0-120	
(S) Nitrobenzene-d5			*47.4*	*14.0-149*	
(S) 2-Fluorobiphenyl			*54.8*	*34.0-125*	
(S) p-Terphenyl-d14			*93.8*	*23.0-120*	

L1364028-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1364028-05 06/12/21 05:49 • (MS) R3666678-3 06/12/21 06:07 • (MSD) R3666678-4 06/12/21 06:25

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0819	0.0480	0.102	0.108	66.5	73.2	1	10.0-145			4.92	30
Acenaphthene	0.0819	0.00805	0.0524	0.0541	54.2	56.6	1	14.0-127			3.17	27
Acenaphthylene	0.0819	0.0490	0.104	0.112	66.6	77.2	1	21.0-124			7.74	25
Benzo(a)anthracene	0.0819	0.151	0.244	0.248	113	119	1	10.0-139			1.72	30
Benzo(a)pyrene	0.0819	0.242	0.351	0.382	134	172	1	10.0-141		J5	8.35	31
Benzo(b)fluoranthene	0.0819	0.341	0.471	0.504	159	201	1	10.0-140	V	V	6.93	36
Benzo(g,h,i)perylene	0.0819	0.232	0.275	0.265	52.8	40.2	1	10.0-140			3.91	33
Benzo(k)fluoranthene	0.0819	0.0956	0.188	0.194	113	121	1	10.0-137			3.31	31
Chrysene	0.0819	0.153	0.243	0.245	110	113	1	10.0-145			0.866	30
Dibenz(a,h)anthracene	0.0819	0.0441	0.0809	0.0816	45.0	46.0	1	10.0-132			0.779	31
Fluoranthene	0.0819	0.257	0.358	0.367	122	135	1	10.0-153			2.62	33
Fluorene	0.0819	0.00644	0.0528	0.0553	56.6	60.0	1	11.0-130			4.69	29
Indeno(1,2,3-cd)pyrene	0.0819	0.190	0.237	0.242	58.0	63.5	1	10.0-137			1.76	32
Naphthalene	0.0819	0.0212	0.0649	0.0648	53.4	53.5	1	10.0-135			0.163	27
Phenanthrene	0.0819	0.110	0.173	0.172	77.3	76.4	1	10.0-144			0.612	31
Pyrene	0.0819	0.279	0.388	0.408	134	159	1	10.0-148		J5	5.03	35
1-Methylnaphthalene	0.0819	0.0169	0.0679	0.0678	62.2	62.4	1	10.0-142			0.156	28
2-Methylnaphthalene	0.0819	0.0206	0.0701	0.0709	60.4	61.8	1	10.0-137			1.20	28
2-Chloronaphthalene	0.0819	U	0.0434	0.0455	53.0	55.8	1	29.0-120			4.75	24
(S) Nitrobenzene-d5					*50.3*	*63.6*		*14.0-149*				
(S) 2-Fluorobiphenyl					*56.1*	*66.3*		*34.0-125*				
(S) p-Terphenyl-d14					*78.6*	*82.5*		*23.0-120*				

Method Blank (MB)

(MB) R3666674-3 06/12/21 16:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0171	0.0500
Benzo(a)anthracene	U		0.0203	0.0500
Benzo(a)pyrene	U		0.0184	0.0500
Benzo(b)fluoranthene	U		0.0168	0.0500
Benzo(g,h,i)perylene	U		0.0184	0.0500
Benzo(k)fluoranthene	U		0.0202	0.0500
Chrysene	U		0.0179	0.0500
Dibenz(a,h)anthracene	U		0.0160	0.0500
Fluoranthene	U		0.0270	0.100
Fluorene	U		0.0169	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500
Naphthalene	U		0.0917	0.250
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0169	0.0500
1-Methylnaphthalene	U		0.0687	0.250
2-Methylnaphthalene	U		0.0674	0.250
2-Chloronaphthalene	U		0.0682	0.250
(S) Nitrobenzene-d5	*97.5*			*31.0-160*
(S) 2-Fluorobiphenyl	*99.5*			*48.0-148*
(S) p-Terphenyl-d14	*117*			*37.0-146*

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

(LCS) R3666674-1 06/12/21 16:20 • (LCSD) R3666674-2 06/12/21 16:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	2.00	2.03	100	102	67.0-150			1.49	20
Acenaphthene	2.00	1.92	1.94	96.0	97.0	65.0-138			1.04	20
Acenaphthylene	2.00	2.11	2.12	105	106	66.0-140			0.473	20
Benzo(a)anthracene	2.00	2.11	2.13	105	106	61.0-140			0.943	20
Benzo(a)pyrene	2.00	1.88	1.92	94.0	96.0	60.0-143			2.11	20
Benzo(b)fluoranthene	2.00	1.85	1.88	92.5	94.0	58.0-141			1.61	20
Benzo(g,h,i)perylene	2.00	1.78	1.80	89.0	90.0	52.0-153			1.12	20
Benzo(k)fluoranthene	2.00	1.86	1.85	93.0	92.5	58.0-148			0.539	20
Chrysene	2.00	1.98	2.01	99.0	100	64.0-144			1.50	20
Dibenz(a,h)anthracene	2.00	1.81	1.82	90.5	91.0	52.0-155			0.551	20
Fluoranthene	2.00	2.06	2.08	103	104	69.0-153			0.966	20

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

(LCS) R3666674-1 06/12/21 16:20 • (LCSD) R3666674-2 06/12/21 16:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	2.00	2.03	2.06	102	103	64.0-136			1.47	20
Indeno(1,2,3-cd)pyrene	2.00	1.85	1.87	92.5	93.5	54.0-153			1.08	20
Naphthalene	2.00	1.82	1.82	91.0	91.0	61.0-137			0.000	20
Phenanthrene	2.00	1.96	2.01	98.0	100	62.0-137			2.52	20
Pyrene	2.00	1.93	1.90	96.5	95.0	60.0-142			1.57	20
1-Methylnaphthalene	2.00	1.94	1.94	97.0	97.0	66.0-142			0.000	20
2-Methylnaphthalene	2.00	1.87	1.87	93.5	93.5	62.0-136			0.000	20
2-Chloronaphthalene	2.00	1.96	1.96	98.0	98.0	64.0-140			0.000	20
(S) Nitrobenzene-d5				*99.0*	*95.0*	*31.0-160*				
(S) 2-Fluorobiphenyl				*99.5*	*94.0*	*48.0-148*				
(S) p-Terphenyl-d14				*113*	*105*	*37.0-146*				

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.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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:
Stantec - Lynnwood, WA

4100 194th Street SW
Suite 400
Lynnwood. WA 98036

Billing Information:
Accounts Payable and Cyrus Gorman
4100 194th Street SW
Suite 400
Lynnwood. WA 98036

Pres Chk

Report to:
Cyrus Gorman

Email To:
Cyrus.Gorman@stantec.com;sarah.vonraesfeld

Project Description:
Spokane Roofing

City/State Collected: Spokane, WA

Please Circle: PT MT CT ET

Phone: 425-599-9302

Client Project #
185751443

Lab Project #
STANTECLWA-185751443

Collected by (print):
Wisner

Site/Facility ID #
185751443

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	(EB)As,Cd,Pb by 6020 250mlHDPE-HNO3	(EB)NWTPHDXLVINOSGT 40mlAmb-HCl-BT	(EB)NWTPHGX 40mlAmb HCl	(EB)PAHSIMLVID 40mlAmb-NoPres-WT	As,Cd,Pb by 6020 8ozClr-NoPres	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/5yr 10 @ 6X	SV8270PAHSIMD 8ozClr-NoPres	dry weight 8ozClr-NoPres	Remarks	Sample # (lab only)
SR-BH113SO 4.0-5.0	G	SS	4.0-5.0	6-8-21	0933	2					✓	✓	✓	✓	✓		-01
SR-BH100SO 2.0-3.0	G	SS	2.0-3.0		1013	2					✓	✓	✓	✓	✓		-02
SR-BH101SO 1.0-2.0	G	SS	1.0-2.0		1026	2					✓	✓	✓	✓	✓		-03
SR-BH102SO 2.5-3.5	G	SS	2.5-3.5		1035	2					✓	✓	✓	✓	✓		-04
SR-BH103SO 1.5-2.5	G	SS	1.5-2.5		1042	6					✓	✓	✓	✓	✓	ms/msd	-05
SR-BH104SO 0.5-1.0	G	SS	0.5-1.0		1054	2					✓	✓	✓	✓	✓		-06
SR-BH105SO 0-1.0	G	SS	0-1.0		1102	2					✓	✓	✓	✓	✓		-07
SR-BH106SO 2.5-3.5	G	SS	2.5-3.5		1110	2					✓	✓	✓	✓	✓		-08
SR-BH107SO 2.0-3.0	G	SS	2.0-3.0		1119	2					✓	✓	✓	✓	✓		-09
SR-BH108SO 0.5-1.5	G	SS	0.5-1.5	↓	1133	2					✓	✓	✓	✓	✓		-10

Chain of Custody Page ___ of ___

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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 # L1364028
Table # F174
Acctnum: STANTEC
Template: T188598
Prelogin: P851917
PM: 546 - Jared Starkey
PB: TN 5-28-21
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 __ FedEx __ Courier _____

Tracking # 5117 4433 3216 / 3010

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
	6-8-21	1500			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
				2.5+1.0=2.5 4/0	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
				06-9-21 10:15	

Company Name/Address:
Stantec - Lynnwood, WA

4100 194th Street SW
Suite 400
Lynnwood. WA 98036

Billing Information:
Accounts Payable and Cyrus Gorman
4100 194th Street SW
Suite 400
Lynnwood, WA 98026

Pres Chk

Report to:
Cyrus Gorman

Email To:
Cyrus.Gorman@stantec.com;sarah.vonraesfeld

Project Description:
Spokane Roofing

City/State Collected: Spokane, WA

Please Circle: PT MT CT ET

Phone: **425-599-9302**

Client Project #
185751443

Lab Project #
STANTECLWA-185751443

Collected by (print): WISher

Site/Facility ID #
185751443

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	(EB)As,Cd,Pb by 6020 250mlHDPE-HNO3	(EB)NWTPHDXLVINOSGT 40mlAmb-HCl-BT	(EB)NWTPHGX 40mlAmb HCl	(EB)PAHSIMLVID 40mlAmb-NoPres-WT	As,Cd,Pb by 6020 8ozClr-NoPres	NWTPHDXNOSGT 8ozClr-NoPres	~~NWTPHGX 40mlAmb/MeOH10ml/syr~~ 10 GX	SV8270PAHSIMD 8ozClr-NoPres	dry weight 8ozClr-NoPres		Remarks	Sample # (lab only)
SR-BH 10950 1.5-2.5	G	SS	1.5-2.5	6-8-21	1140	2	~~✓~~	~~✓~~	~~✓~~	~~✓~~	✓	✓	✓	✓	✓			-11
SR-BH 11050 0-1.0	|	~~SSW~~	0-1.0	|	1147	2	~~✓~~				✓	✓	✓	✓	✓			-12
SR-BH 11150 0.75-1.75	|	SS	0.75-1.75	|	1155	2	~~✓~~				✓	✓	✓	✓	✓			-13
SR-DUP01	|	SS	—	|	—	2	~~✓~~				✓	✓	✓	✓	✓			-14
SR-DUP02	|	SS	—	|	—	2	~~✓~~				✓	✓	✓	✓	✓			-15
SR-ER01	↓	GW	—	↓	1200	8	✓	✓	✓	✓			✓					-16
~~SR-IDW50~~	G	SS	—	↓	1205	1											HOLD	

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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
	6-8-21	~~1500~~ 0300		AT	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
				2.5, 0.2, 2.5 40	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK
				6/9/21 1015	

Chain of Custody Page ___ of ___

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SDG # L1364028

Table #

Acctnum: **STANTECLWA**

Template: **T188598**

Prelogin: **P851917**

PM: **546 - Jared Starkey**

PB: TNS-28-21

Shipped Via:

ANALYTICAL REPORT

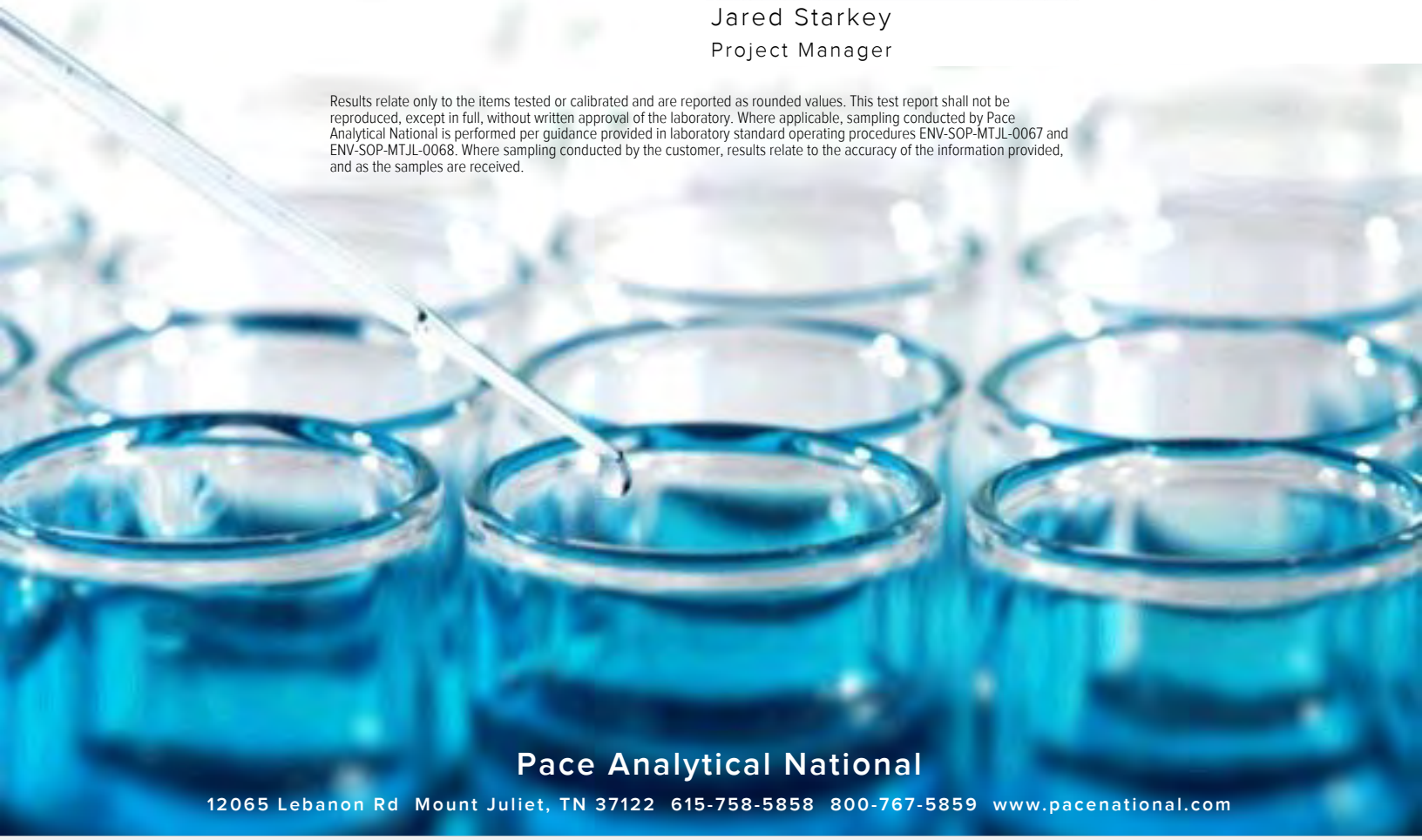
July 03, 2021

Stantec - Lynnwood, WA

Sample Delivery Group:	L1368834
Samples Received:	06/09/2021
Project Number:	185751443
Description:	Spokane Roofing
Site:	185751413
Report To:	Cyrus Gorman 4100 194th Street SW Suite 400 Lynnwood, WA 98036

Entire Report Reviewed By:

Jared Starkey
Project Manager



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

TABLE OF CONTENTS

SR-BH113SO 4.0-5.0 L1368834-01 Waste

Collected by: Wisher | Collected date/time: 06/08/21 09:33 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694241	1	06/24/21 11:31	06/24/21 11:31	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 01:58	CCE	Mt. Juliet, TN

SR-BH100SO 2.0-3.0 L1368834-02 Waste

Collected by: Wisher | Collected date/time: 06/08/21 10:13 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694241	1	06/24/21 11:31	06/24/21 11:31	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:06	CCE	Mt. Juliet, TN

SR-BH101SO 1.0-2.0 L1368834-03 Waste

Collected by: Wisher | Collected date/time: 06/08/21 10:26 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694241	1	06/24/21 11:31	06/24/21 11:31	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:09	CCE	Mt. Juliet, TN

SR-BH102SO 2.5-3.5 L1368834-04 Waste

Collected by: Wisher | Collected date/time: 06/08/21 10:35 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694241	1	06/24/21 11:31	06/24/21 11:31	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:12	CCE	Mt. Juliet, TN

SR-BH103SO 1.5-2.5 L1368834-05 Waste

Collected by: Wisher | Collected date/time: 06/08/21 10:42 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694241	1	06/24/21 11:31	06/24/21 11:31	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:15	CCE	Mt. Juliet, TN

SR-BH104SO 0.5-1.0 L1368834-06 Waste

Collected by: Wisher | Collected date/time: 06/08/21 10:54 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694241	1	06/24/21 11:31	06/24/21 11:31	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:17	CCE	Mt. Juliet, TN

SR-DUP02 L1368834-07 Waste

Collected by: Wisher | Collected date/time: 06/08/21 11:10 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694242	1	06/24/21 15:11	06/24/21 15:11	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:20	CCE	Mt. Juliet, TN

SR-BH107SO 2.0-3.0 L1368834-08 Waste

Collected by: Wisher | Collected date/time: 06/08/21 11:19 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694242	1	06/24/21 15:11	06/24/21 15:11	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:23	CCE	Mt. Juliet, TN

SR-BH111SO 0.75-1.75 L1368834-09 Waste

Collected by: Wisher | Collected date/time: 06/08/21 11:55 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694242	1	06/24/21 15:11	06/24/21 15:11	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:26	CCE	Mt. Juliet, TN

SR-DUP01 L1368834-10 Waste

Collected by: Wisher | Collected date/time: 06/08/21 00:00 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694242	1	06/24/21 15:11	06/24/21 15:11	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:29	CCE	Mt. Juliet, TN

SR-BHDUP02 L1368834-11 Waste

Collected by: Wisher | Collected date/time: 06/08/21 00:00 | Received date/time: 06/09/21 10:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1694242	1	06/24/21 15:11	06/24/21 15:11	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1695353	1	07/01/21 07:19	07/02/21 02:32	CCE	Mt. Juliet, TN

CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Jared Starkey
Project Manager

DETECTION SUMMARY

Metals (ICP) by Method 6010D

Client ID	Lab Sample ID	Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
SR-BH113SO 4.0-5.0	L1368834-01	Lead	0.125		0.100	5	1	07/02/2021 01:58	WG1695353
SR-BH100SO 2.0-3.0	L1368834-02	Lead	0.212		0.100	5	1	07/02/2021 02:06	WG1695353
SR-BH101SO 1.0-2.0	L1368834-03	Lead	0.225		0.100	5	1	07/02/2021 02:09	WG1695353
SR-BH102SO 2.5-3.5	L1368834-04	Lead	1.18		0.100	5	1	07/02/2021 02:12	WG1695353
SR-BH103SO 1.5-2.5	L1368834-05	Lead	0.557		0.100	5	1	07/02/2021 02:15	WG1695353
SR-BH111SO 0.75-1.75	L1368834-09	Lead	0.148		0.100	5	1	07/02/2021 02:26	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 11:31:47 AM	WG1694241
Fluid	1		6/24/2021 11:31:47 AM	WG1694241
Initial pH	10.11		6/24/2021 11:31:47 AM	WG1694241
Final pH	5.06		6/24/2021 11:31:47 AM	WG1694241

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.125		0.100	5	1	07/02/2021 01:58	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 11:31:47 AM	WG1694241
Fluid	1		6/24/2021 11:31:47 AM	WG1694241
Initial pH	8.56		6/24/2021 11:31:47 AM	WG1694241
Final pH	4.93		6/24/2021 11:31:47 AM	WG1694241

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.212		0.100	5	1	07/02/2021 02:06	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 11:31:47 AM	WG1694241
Fluid	1		6/24/2021 11:31:47 AM	WG1694241
Initial pH	8.85		6/24/2021 11:31:47 AM	WG1694241
Final pH	4.96		6/24/2021 11:31:47 AM	WG1694241

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.225		0.100	5	1	07/02/2021 02:09	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 11:31:47 AM	WG1694241
Fluid	1		6/24/2021 11:31:47 AM	WG1694241
Initial pH	8.27		6/24/2021 11:31:47 AM	WG1694241
Final pH	6.08		6/24/2021 11:31:47 AM	WG1694241

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	1.18		0.100	5	1	07/02/2021 02:12	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 11:31:47 AM	WG1694241
Fluid	1		6/24/2021 11:31:47 AM	WG1694241
Initial pH	8.39		6/24/2021 11:31:47 AM	WG1694241
Final pH	5.06		6/24/2021 11:31:47 AM	WG1694241

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.557		0.100	5	1	07/02/2021 02:15	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 11:31:47 AM	WG1694241
Fluid	1		6/24/2021 11:31:47 AM	WG1694241
Initial pH	4.95		6/24/2021 11:31:47 AM	WG1694241
Final pH	4.83		6/24/2021 11:31:47 AM	WG1694241

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	07/02/2021 02:17	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 3:11:12 PM	WG1694242
Fluid	1		6/24/2021 3:11:12 PM	WG1694242
Initial pH	5.65		6/24/2021 3:11:12 PM	WG1694242
Final pH	5.12		6/24/2021 3:11:12 PM	WG1694242

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	07/02/2021 02:20	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 3:11:12 PM	WG1694242
Fluid	1		6/24/2021 3:11:12 PM	WG1694242
Initial pH	8.69		6/24/2021 3:11:12 PM	WG1694242
Final pH	5.73		6/24/2021 3:11:12 PM	WG1694242

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	07/02/2021 02:23	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 3:11:12 PM	WG1694242
Fluid	1		6/24/2021 3:11:12 PM	WG1694242
Initial pH	8.91		6/24/2021 3:11:12 PM	WG1694242
Final pH	5.02		6/24/2021 3:11:12 PM	WG1694242

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	0.148		0.100	5	1	07/02/2021 02:26	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 3:11:12 PM	WG1694242
Fluid	1		6/24/2021 3:11:12 PM	WG1694242
Initial pH	6.44		6/24/2021 3:11:12 PM	WG1694242
Final pH	4.84		6/24/2021 3:11:12 PM	WG1694242

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	07/02/2021 02:29	WG1695353

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		6/24/2021 3:11:12 PM	WG1694242
Fluid	1		6/24/2021 3:11:12 PM	WG1694242
Initial pH	8.75		6/24/2021 3:11:12 PM	WG1694242
Final pH	5.00		6/24/2021 3:11:12 PM	WG1694242

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	07/02/2021 02:32	WG1695353

Method Blank (MB)

(MB) R3674951-1 07/02/21 01:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead	U		0.0333	0.100

Laboratory Control Sample (LCS)

(LCS) R3674951-2 07/02/21 01:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	10.0	9.64	96.4	80.0-120	

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

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.

Chain of Custody Page ___ of ___

Pace Analytical®

L1368834

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 # L1364028

Table # F174

Acctnum: STAN[illegible]

Template: T188598

Prelogin: P851917

PM: 546 - Jared Starkey

PB: TN 5-28-21

Shipped Via:

Company Name/Address:
Stantec - Lynnwood, WA
4100 194th Street SW
Suite 400
Lynnwood, WA 98036

Billing Information:
Accounts Payable and Cyrus Gorman
4100 194th Street SW
Suite 400
Lynnwood, WA 98036

Pres Chk

Report to: Cyrus Gorman

Email To: Cyrus.Gorman@stantec.com;sarah.vonraesfeld

Project Description: Spokane Roofing

City/State Collected: Spokane, WA

Please Circle: PT MT CT ET

Phone: 425-599-9302

Client Project #: 185751443

Lab Project #: STANTECLWA-185751443

Collected by (print): Wisher

Site/Facility ID #: 185751433

P.O. #

Quote #

Collected by (signature):

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

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Analysis / Container / Preservative:
1. (EB)As,Cd,Pb by 6020 250mlHDPE-HNO3
2. (EB)NWTPHDXLVINOSGT 40mlAmb-HCl-BT
3. (EB)NWTPHGX 40mlAmb HCl
4. (EB)PAHSIMLVID 40mlAmb-NoPres-WT
5. As,Cd,Pb by 6020 8ozClr-NoPres
6. NWTPHDXNOSGT 8ozClr-NoPres
7. NWTPHGX 40mlAmb/MeOH10ml/Syr 1/0 Gu 6x
8. SV8270PAHSIMD 8ozClr-NoPres
9. dry weight 8ozClr-NoPres

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	(EB)As,Cd,Pb 6020	(EB)NWTPHDXLVINOSGT	(EB)NWTPHGX	(EB)PAHSIMLVID	As,Cd,Pb 6020	NWTPHDXNOSGT	NWTPHGX	SV8270PAHSIMD	dry weight	Remarks	Sample # (lab only)	
SR-BH113SO 4.0-5.0	G	SS	4.0-5.0	6-8-21	0933	2					✓	✓	✓	✓	✓		-01	-01
SR-BH100SO 2.0-3.0	G	SS	2.0-3.0	↓	1013	2					✓	✓	✓	✓	✓		-02	-02
SR-BH101SO 1.0-2.0	G	SS	1.0-2.0		1026	2					✓	✓	✓	✓	✓		-03	-03
SR-BH102SO 2.5-3.5	G	SS	2.5-3.5		1035	2					✓	✓	✓	✓	✓		-04	-04
SR-BH103SO 1.5-2.5	G	SS	1.5-2.5		1042	6					✓	✓	✓	✓	✓	ms/msd	-05	-05
SR-BH104SO 0.5-1.0	G	SS	0.5-1.0		1054	2					✓	✓	✓	✓	✓		-06	-06
SR-BH105SO 0-1.0	G	SS	0-1.0		1102	2					✓	✓	✓	✓	✓		-07	-07
SR-BH106SO 2.5-3.5	G	SS	2.5-3.5		1110	2					✓	✓	✓	✓	✓		-08	-08
SR-BH107SO 2.0-3.0	G	SS	2.0-3.0		1119	2					✓	✓	✓	✓	✓		-09	
SR-BH108SO 0.5-1.5	G	SS	0.5-1.5	↓	1133	2					✓	✓	✓	✓	✓		-10	

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

Remarks:

pH ______ Temp ______

Flow ______ Other ______ 1.3

Samples returned via:
__ UPS __ FedEx __ Courier ________

Tracking # 5117 4433 3216 / 3010

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
[signature]	6-8-21	1500		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: AG °C 2.5+0=2.5; Bottles Received: 40
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 6-9-21 Time: 10:15

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Stantec - Lynnwood, WA
4100 194th Street SW
Suite 400
Lynnwood, WA 98036

Billing Information:
Accounts Payable and Cyrus Gorman
4100 194th Street SW
Suite 400
Lynnwood, WA 98036

Pres Chk

Report to: Cyrus Gorman

Email To: Cyrus.Gorman@stantec.com;sarah.vonraesfeld

Project Description: Spokane Roofing

City/State Collected: Spokane, WA

Please Circle: PT MT CT ET

Phone: 425-599-9302

Client Project # 185751443

Lab Project # STANTECLWA-185751443

Collected by (print): WISHER

Site/Facility ID # 185751443

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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	# of cntrs	(EB)As,Cd,Pb by 6020 250mlHDPE-HNO3	(EB)NWTPHDXLVINOSGT 40mlAmb-HCl-BT	(EB)NWTPHGX 40mlAmb HCl	(EB)PAHSIMLVID 40mlAmb-NoPres-WT	As,Cd,Pb by 6020 8ozClr-NoPres	NWTPHDXNOSGT 8ozClr-NoPres	NWTPHGX 40mlAmb/MeOH 10ml/Syr 2 6X	SV8270PAHSIMD 8ozClr-NoPres	dry weight 8ozClr-NoPres			
SR-BH12950 1.5-2.5	G	SS	1.5-2.5	6-8-21	1140	2	✓	✓	✓	✓	✓	✓	✓	✓	✓			-14
SR-BH 11050 0-1.0		SS	0-1.0		1147	2	✓				✓	✓	✓	✓	✓			-12
SR-BH 11150 0.75-1.75		SS	0.75-1.75		1155	2	✓				✓	✓	✓	✓	✓			-13 -09
SR-DUP01		SS	—		—	2	✓				✓	✓	✓	✓	✓			-14 -10
SR-DUP02		SS	—		—	2	✓				✓	✓	✓	✓	✓			-15 -11
SR-ER01	↓	GW	—	↓	1200	8	✓	✓	✓	✓			✓					-16
SR-IDW50	G	SS	—	↓	1205	1											HOLD	

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®

L1368834

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 # L1364028

Table #

Acctnum: STANTECLWA

Template: T188598

Prelogin: P851917

PM: 546 - Jared Starkey

PB: TNS-28-21

Shipped Via:

Remarks | Sample # (lab only)

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

Remarks:

pH _____ Temp_____

Flow _____ Other_____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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)
	6-8-21	1500 ~~0500~~	
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: 1.1 °C Bottles Received: 40
2.5, 0.2, 5

If preservation required by Login: Date/Time

Hold

Condition: NCF / OK

Date: 6/9/21 Time: 1015

STANTECLWA Relogs L1364028

R5

Please relog the following samples for TCLP Lead

L1364028-01
L1364028-02
L1364028-03
L1364028-04
L1364028-05
L1364028-06
L1364028-08
L1364028-09
L1364028-13
L1364028-14
L1364028-15

Time estimate: oh **Time spent:** oh

Members

JS Jared Starkey (responsible)

APPENDIX C

Calculation of PAH Diagnostic Ratios

Calculation of PAH Diagnostic Ratios for Distinguishing Pyrogenic Hydrocarbons and Petrogenic Hydrocarbons

Sources:

- Jiao, H., Q. Wang, N. Zhao, B. Jin, X. Zhuang, and Z. Bai. 2017. "Distributions and Sources of Polycyclic Aromatic Hydrocarbons (PAHs) in Soils Around a Chemical Plant in Shanxi, China." International Journal of Environmental Research and Public Health 14 (10). doi:10.3390/ijerph14101198. www.scopus.com.
- Tobiszewski, M. and J. Namieśnik. 2012. "PAH Diagnostic Ratios for the Identification of Pollution Emission Sources." Environmental Pollution 162: 110-119. doi:10.1016/j.envpol.2011.10.025. www.scopus.com.

- Zhang, W., S. Zhang, C. Wan, D. Yue, Y. Ye, and X. Wang. 2008. "Source Diagnostics of Polycyclic Aromatic Hydrocarbons in Urban Road Runoff, Dust, Rain and Canopy Throughfall." Environmental Pollution 153 (3): 594-601. doi:10.1016/j.envpol.2007.09.004. www.scopus.com.

Polycyclic Aromatic Hydrocarbon (PAH)	Abbreviation	No. of Rings	SR-BH100SO (2.0-3.0 ft)	SR-BH101SO (1.0-2.0 ft)	SR-BH102SO (2.5-3.5 ft)	SR-BH103SO (1.5-2.5 ft)	SR-BH104SO (0.5-1.0 ft)	SR-BH105SO (0-1.0 ft)	SR-BH106SO (2.5-3.5 ft)	SR-BH107SO (2.0-3.0 ft)	SR-BH108SO (0.5-1.5 ft)	SR-BH109SO (1.5-2.5 ft)	SR-BH110SO (0-1.0 ft)	SR-BH111SO (0.75-1.75 ft)	SR-BH113SO (4.0-5.0 ft)	SR-DUP02	SR-DUP01
Acenaphthene	Ace	3	0.00451	0.00888	0.0176	0.00805	0.0027	0.0233	0.0649	0.0212	0.00343	0.00794	0.00217	0.0462	0.00216	0.0181	0.00222
Acenaphthylene	Acy	3	0.0109	0.0126	0.0178	0.049	0.0229	0.0224	0.0639	0.0838	0.0255	0.0143	0.00326	0.0684	0.00223	0.0283	0.00843
Anthracene	Ant	3	0.0123	0.0175	0.0405	0.048	0.0229	0.0537	0.165	0.0788	0.0181	0.0187	0.00266	0.118	0.00238	0.0469	0.00495
Benzo(a)anthracene	BaA	4	0.0729	0.105	0.184	0.151	0.0719	0.331	0.937	0.344	0.0737	0.102	0.0121	0.384	0.0072	0.251	0.0369
Benzo(a)pyrene	BaP	5	0.0831	0.126	0.213	0.242	0.142	0.406	1.18	0.428	0.148	0.158	0.0163	0.53	0.00709	0.341	0.0451
Benzo(b)fluoranthene	BbB	5	0.0918	0.148	0.412	0.341	0.172	0.462	1.43	0.536	0.166	0.185	0.0295	0.631	0.0111	0.402	0.0579
Benzo(g,h,i)perylene	BPer	6	0.0905	0.111	0.292	0.232	0.267	0.448	0.751	0.387	0.192	0.192	0.0267	0.53	0.0128	0.335	0.0431
Benzo(k)fluoranthene	BkF	5	0.032	0.0569	0.128	0.0956	0.0551	0.174	0.513	0.179	0.0559	0.0632	0.00968	0.201	0.0038	0.136	0.022
Chloronaphthalene, 2-		2	0.00479	0.00494	0.00542	0.00492	0.005	0.00509	0.00486	0.00496	0.0049	0.00486	0.00483	0.00482	0.00482	0.0048	0.00495
Chrysene	Chr	4	0.0751	0.117	0.181	0.153	0.0806	0.348	0.994	0.353	0.0789	0.105	0.0156	0.373	0.007	0.26	0.038
Dibenzo(a,h)anthracene	dBA	5	0.0143	0.0207	0.0499	0.0441	0.0356	0.0695	0.15	0.0729	0.0242	0.0345	0.00476	0.0878	0.00178	0.0567	0.00808
Fluoranthene	Flt	4	0.115	0.207	0.254	0.257	0.147	0.584	1.63	0.642	0.122	0.178	0.0295	0.697	0.0132	0.409	0.0604
Fluorene	Flr	3	0.00343	0.00512	0.013	0.00644	0.00318	0.0114	0.032	0.0151	0.00237	0.005	0.00213	0.0276	0.00212	0.0113	0.00218
Indeno(1,2,3-cd)pyrene	IP	6	0.0617	0.106	0.306	0.19	0.188	0.367	0.704	0.363	0.163	0.172	0.0226	0.432	0.00795	0.271	0.0423
Methylnaphthalene, 1-		2	0.0105	0.00559	0.0276	0.0169	0.0202	0.0049	0.0141	0.0157	0.00531	0.0116	0.00466	0.0122	0.00582	0.0263	0.00477
Methylnaphthalene, 2-		2	0.0138	0.00596	0.0378	0.0206	0.0283	0.00507	0.0146	0.0196	0.00525	0.0105	0.00443	0.0164	0.0074	0.0311	0.00454
Naphthalene	Nap	2	0.0171	0.00685	0.0373	0.0212	0.0243	0.00813	0.0222	0.0263	0.00811	0.00622	0.00451	0.0191	0.00576	0.0539	0.00516
Phenanthrene	Phe	3	0.0584	0.0959	0.163	0.11	0.0657	0.202	0.593	0.265	0.0455	0.0662	0.0126	0.336	0.0106	0.162	0.02
Pyrene	Pyr	4	0.115	0.216	0.266	0.279	0.185	0.611	1.7	0.646	0.148	0.199	0.0311	0.736	0.0121	0.428	0.0634

sample result was non-detect, lab MDL was used for the calculations

	Diagnostic Ratio Values																	
		Pyrogenic																
PAH Ratio	Petrogenic	Fuel Combustion	Coal, Grass, Wood Burning	SR-BH100SO (2.0-3.0 ft)	SR-BH101SO (1.0-2.0 ft)	SR-BH102SO (2.5-3.5 ft)	SR-BH103SO (1.5-2.5 ft)	SR-BH104SO (0.5-1.0 ft)	SR-BH105SO (0-1.0 ft)	SR-BH106SO (2.5-3.5 ft)	SR-BH107SO (2.0-3.0 ft)	SR-BH108SO (0.5-1.5 ft)	SR-BH109SO (1.5-2.5 ft)	SR-BH110SO (0-1.0 ft)	SR-BH111SO (0.75-1.75 ft)	SR-BH113SO (4.0-5.0 ft)	SR-DUP02	SR-DUP01	Result
Pyrogenic Index*	>1	<1		0.20	0.17	0.23	0.18	0.19	0.12	0.12	0.17	0.15	0.13	0.24	0.18	0.49	0.16	0.16	Pyrogenic
Total Index**	<4	>4		5.45	5.13	5.73	6.72	6.05	5.76	5.83	6.01	6.39	5.85	5.14	6.35	5.67	5.92	5.67	Pyrogenic
Flt / (Flt + Pyr)	<0.4	0.4-0.5	>0.5	0.50	0.49	0.49	0.48	0.44	0.49	0.49	0.50	0.45	0.47	0.49	0.49	0.52	0.49	0.49	Pyrogenic
IP / (IP + BPer)	<0.2	0.2-0.5	>0.5	0.41	0.49	0.51	0.45	0.41	0.45	0.48	0.48	0.46	0.47	0.46	0.45	0.38	0.45	0.50	Pyrogenic
BaA/(BaA + Chr)	<0.2	>0.35	0.2-0.35	0.49	0.47	0.50	0.50	0.47	0.49	0.49	0.49	0.48	0.49	0.44	0.51	0.51	0.49	0.49	Pyrogenic
Ant/(Ant + Phe)	<0.1	>0.1		0.07	0.08	0.10	0.07	0.04	0.10	0.10	0.07	0.07	0.11	0.15	0.12	0.17	0.10	0.10	Mixed

Notes:

* = Σ of Ace, Acy, Ant, Flr, Nap, Phe / Σ of BaA, BaP, Chr, Flt, and Pyr

** = (Flt/(Flt+Pyr))/0.4 + (Ant/(Ant+Phe))/0.1+(BaA/(BaA+Chr))/0.2

APPENDIX D

Data Validation Report

DATA VALIDATION WORKSHEET

GENERAL INFORMATION:

Lab Name:	Pace Analytical
Lab SDG/Project/Work Order:	L1364028
Project Name:	130 East Sprague Avenue Phase II ESA Spokane, Washington
Stantec Project Number:	185751194
Client:	City of Spokane
Validator Name:	Sarah Von Raesfeld
Date of Validation:	July 7, 2021

SAMPLE INFORMATION:

Number of Samples:	16
Matrix:	15 Soil and 1 QC Water
Number of Trip Blanks:	None
Number of Equipment Blanks:	One
Number of Field Duplicates	Two
Date of Sample Collection:	June 08, 2021

Sample Name:	Analyses:	Batch:
SR-BH100SO 2.0-3.0	PAHs (SW8270E-SIM)	WG1686664
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH101SO 1.0-2.0	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH102SO 2.5-3.5	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH103SO 1.5-2.5	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH104SO 0.5-1.0	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH105SO 0-1.0	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH106SO 2.5-3.5	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH107SO 2.0-3.0	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH108SO 0.5-1.5	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH109SO 1.5-2.5	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH110SO 0-1.0	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347

Sample Name:	Analyses:	Batch:
SR-BH111SO 0.75-1.75	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-BH113SO 4.0-5.0	PAHs (SW8270E-SIM)	WG1686664
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-DUP02	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-DUP01	PAHs (SW8270E-SIM)	WG1686969
	DRO/RRO (NWTPH-Dx)	WG1687176
	As, Cd, Pb (SW6020B)	WG1687347
SR-ER01	PAHs (SW8270E-SIM)	WG1687383
	DRO/RRO (NWTPH-Dx)	WG1688283
	As, Cd, Pb (SW6020B)	WG1692858

GENERAL DATA VALIDATION:

Case Narrative:
The laboratory case narrative identified spike recoveries that did not meet laboratory acceptance criteria. The laboratory non-conformances are discussed in the following sections.

Chain of Custody:
The COC was complete, all requested analyses were performed.

Sample Receipt:
The samples were received within the acceptable temperature range of 0° - 6° C.

Holding Times:
All samples were analyzed within the recommended holding time.

Trip Blank Review:
There were no trip blank samples collected.

Equipment Blank Review:
There were no analytes detected above the MDL in equipment blank sample SR-ER01.

Surrogates:
The PAH surrogate percent recovery was less than the lower acceptance limit for nitrobenzene-d5 in sample SR-BH106SO 2.5-3.5. There were no analytes associated with the surrogate, no data were qualified.

Data were not qualified in cases where surrogate recoveries were outside of acceptance limits due to sample dilutions.

Elevated Reporting Limits:
TPH: Four samples were analyzed for DRO/RRO at dilution factors ranging from 2x to 400x due to the nature of the sample matrix and elevated concentrations.

Metals: Fourteen soil samples were analyzed 5x dilution factors. Sample SR-BH102SO 2.5-3.5 was analyzed at a 500x dilution factor due to an elevated lead concentration.

Laboratory MDLs and MRLs were raised accordingly.

PER ANALYSES:

Diesel Range Organics and Residual Range Organics by Method NWTPH-Dx (Batches WG1687176 and WG1688283)
Method Blanks: No analytes were detected above the MDL in the laboratory method blank. No qualifiers are needed.
Laboratory Control Sample/Laboratory Control Sample Duplicate: The LCS percent recovery was within the acceptance limits. No qualifiers are needed.
Matrix Spike/Matrix Spike Duplicate: A project sample was not analyzed as the MS/MSD.
Polycyclic Aromatic Hydrocarbons, Method 8270E SIM (Batches WG1686664, WG1686969 and WG1687383)
Method Blanks: No analytes were detected above the MDL in the laboratory method blank. No qualifiers are needed.
Laboratory Control Sample/Laboratory Control Sample Duplicate: The LCS/LCSD percent recoveries and/or RPDs exceeded the acceptance limits for compounds in batch WG1551421. There were no PAHs detected in the associated sample, no qualifiers were needed. All other spike recoveries and RPDs were within the acceptance limits.
Matrix Spike/Matrix Spike Duplicate: Project sample SR-BH103SO 1.5-2.5 was analyzed as the MS/MSD. Spike recoveries exceeded the upper acceptance limit for benzo(a)pyrene and pyrene, the results were qualified as estimated with a potential positive bias (J+) in the parent sample.
Metals, Method 6020B (Batches WG1687347 and WG1692858)
Method Blanks: No analytes were detected above the MDL in the laboratory method blanks. No qualifiers are needed.
Laboratory Control Sample/Laboratory Control Sample Duplicate: The LCS percent recoveries were within the acceptance limits. No qualifiers are needed.
Matrix Spike/Matrix Spike Duplicate: Project sample SR-BH103SO 1.5-2.5 was analyzed as the MS/MSD. The spike recoveries and RPD exceeded acceptance limits for lead. Lead was qualified as estimated with a potential positive bias (J+) in the parent sample (SR-BH103SO 1.5-2.5).

FIELD DUPLICATE REVIEW:

Two field duplicate pairs were collected. Sample SR-DUP02 is a field duplicate of sample SR-BH106SO 2.5-3.5 and SR-DUP01 is a field duplicate of sample SR-BH101SO 1.0-2.0. RPDs are calculated between the results of the original and field duplicate samples for constituents detected in both samples at concentrations exceeding five-times their respective MRLs. The results were qualified as estimated (J) in both the parent and field duplicate samples for the constituents tabulated below.

Sample Name	Constituent	Result	Reporting Limit	Units	RPD
SR-BH106SO 2.5-3.5	Anthracene	0.165	0.00626	mg/kg	111%
SR-BHDUP02	Anthracene	0.0469	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Benzo(a)anthracene	0.937	0.00626	mg/kg	115%
SR-BHDUP02	Benzo(a)anthracene	0.251	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Benzo(a)pyrene	1.18	0.00626	mg/kg	110%
SR-BHDUP02	Benzo(a)pyrene	0.341	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Benzo(b)fluoranthene	1.43	0.00626	mg/kg	112%
SR-BHDUP02	Benzo(b)fluoranthene	0.402	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Benzo(g,h,i)perylene	0.751	0.00626	mg/kg	77%
SR-BHDUP02	Benzo(g,h,i)perylene	0.335	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Benzo(k)fluoranthene	0.513	0.00626	mg/kg	116%
SR-BHDUP02	Benzo(k)fluoranthene	0.136	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Chrysene	0.994	0.00626	mg/kg	117%
SR-BHDUP02	Chrysene	0.26	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Dibenz(a,h)anthracene	0.15	0.00626	mg/kg	90%
SR-BHDUP02	Dibenz(a,h)anthracene	0.0567	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Fluoranthene	1.63	0.00626	mg/kg	120%
SR-BHDUP02	Fluoranthene	0.409	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Indeno(1,2,3-cd)pyrene	0.704	0.00626	mg/kg	89%
SR-BHDUP02	Indeno(1,2,3-cd)pyrene	0.271	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Phenanthrene	0.593	0.00626	mg/kg	114%
SR-BHDUP02	Phenanthrene	0.162	0.00618	mg/kg	
SR-BH106SO 2.5-3.5	Pyrene	1.7	0.00626	mg/kg	120%
SR-BHDUP02	Pyrene	0.428	0.00618	mg/kg	
SR-BH101SO 1.0-2.0	Lead	141	2.12	mg/kg	78%
SR-DUP01	Lead	321	2.13	mg/kg	
SR-BH101SO 1.0-2.0	Benzo(a)anthracene	0.105	0.00636	mg/kg	96%
SR-DUP01	Benzo(a)anthracene	0.0369	0.00638	mg/kg	
SR-BH101SO 1.0-2.0	Benzo(a)pyrene	0.126	0.00636	mg/kg	95%
SR-DUP01	Benzo(a)pyrene	0.0451	0.00638	mg/kg	
SR-BH101SO 1.0-2.0	Benzo(b)fluoranthene	0.148	0.00636	mg/kg	88%
SR-DUP01	Benzo(b)fluoranthene	0.0579	0.00638	mg/kg	
SR-BH101SO 1.0-2.0	Benzo(g,h,i)perylene	0.111	0.00636	mg/kg	88%
SR-DUP01	Benzo(g,h,i)perylene	0.0431	0.00638	mg/kg	
SR-BH101SO 1.0-2.0	Chrysene	0.117	0.00636	mg/kg	102%
SR-DUP01	Chrysene	0.038	0.00638	mg/kg	
SR-BH101SO 1.0-2.0	Fluoranthene	0.207	0.00636	mg/kg	110%
SR-DUP01	Fluoranthene	0.0604	0.00638	mg/kg	
SR-BH101SO 1.0-2.0	Indeno(1,2,3-cd)pyrene	0.106	0.00636	mg/kg	86%
SR-DUP01	Indeno(1,2,3-cd)pyrene	0.0423	0.00638	mg/kg	
SR-BH101SO 1.0-2.0	Pyrene	0.216	0.00636	mg/kg	109%
SR-DUP01	Pyrene	0.0634	0.00638	mg/kg	

DETERMINATION:

The data in this work order have been validated. All data that have not been rejected ("R" flagged) are usable as qualified:

Sample ID	Method	Analyte	Original Result	Validated Result	Units	Reason Code
SR-BH103SO 1.5-2.5	6020B	Lead	359 J3 J5 O1	359 J+	mg/kg	MS/MSD %R > UAL
SR-BH103SO 1.5-2.5	8270E-SIM	Benzo(a)pyrene	0.242 J5	0.242 J+	mg/kg	MS/MSD %R > UAL
SR-BH103SO 1.5-2.5	8270E-SIM	Pyrene	0.279 J5	0.279 J+	mg/kg	MS/MSD %R > UAL
SR-BH106SO 2.5-3.5	8270E-SIM	Anthracene	0.165	0.165 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Anthracene	0.0469	0.0469 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Benzo(a)anthracene	0.937	0.937 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Benzo(a)anthracene	0.251	0.251 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Benzo(a)pyrene	1.18	1.18 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Benzo(a)pyrene	0.341	0.341 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Benzo(b)fluoranthene	1.43	1.43 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Benzo(b)fluoranthene	0.402	0.402 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Benzo(g,h,i)perylene	0.751	0.751 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Benzo(g,h,i)perylene	0.335	0.335 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Benzo(k)fluoranthene	0.513	0.513 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Benzo(k)fluoranthene	0.136	0.136 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Chrysene	0.994	0.994 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Chrysene	0.26	0.26 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Dibenz(a,h)anthracene	0.15	0.15 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Dibenz(a,h)anthracene	0.0567	0.0567 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Fluoranthene	1.63	1.63 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Fluoranthene	0.409	0.409 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Indeno(1,2,3-cd)pyrene	0.704	0.704 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Indeno(1,2,3-cd)pyrene	0.271	0.271 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Phenanthrene	0.593	0.593 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Phenanthrene	0.162	0.162 J	mg/kg	FD RPD > CL
SR-BH106SO 2.5-3.5	8270E-SIM	Pyrene	1.7	1.7 J	mg/kg	FD RPD > CL
SR-BHDUP02	8270E-SIM	Pyrene	0.428	0.428 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	6020B	Lead	141	141 J	mg/kg	FD RPD > CL
SR-DUP01	6020B	Lead	321	321 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Benzo(a)anthracene	0.105	0.105 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Benzo(a)anthracene	0.0369	0.0369 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Benzo(a)pyrene	0.126	0.126 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Benzo(a)pyrene	0.0451	0.0451 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Benzo(b)fluoranthene	0.148	0.148 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Benzo(b)fluoranthene	0.0579	0.0579 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Benzo(g,h,i)perylene	0.111	0.111 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Benzo(g,h,i)perylene	0.0431	0.0431 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Chrysene	0.117	0.117 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Chrysene	0.038	0.038 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Fluoranthene	0.207	0.207 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Fluoranthene	0.0604	0.0604 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Indeno(1,2,3-cd)pyrene	0.106	0.106 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Indeno(1,2,3-cd)pyrene	0.0423	0.0423 J	mg/kg	FD RPD > CL
SR-BH101SO 1.0-2.0	8270E-SIM	Pyrene	0.216	0.216 J	mg/kg	FD RPD > CL
SR-DUP01	8270E-SIM	Pyrene	0.0634	0.0634 J	mg/kg	FD RPD > CL

%R – percent recovery
CL – control limit
FD – field duplicate
mg/kg – milligrams per kilogram
MS – matrix spike
MSD – matrix spike duplicate
RPD – relative percent difference
SIM – selective ion monitoring
UAL – upper acceptance limit

NOTES:

Laboratory assigned flags (J). Analytical results flagged by the laboratory as estimated values in the final laboratory report are assigned a qualifier of **J** to denote that the result is an estimated value based on the analyses. This qualifier is not one that is assigned based on data validation review or quality of data. In the case where the laboratory reports sample results between the MDL and MRL, the resulting data was flagged with **J** to denote that the result is estimated.

Data validation assigned qualifiers (U, UJ, J, R). The following qualifiers may be assigned to data in this data set based on the results of the data validation procedure (documented on this form). In general data qualifiers are defined as follows:

- U Indicates the analyte was analyzed for, but was not detected above the reported sample quantitation limit (MRL, or MDL if reported). Results assigned this qualifier are considered undetected at the MRL, or MDL if reported.

- UJ Indicates the analyte was not detected above the quantitation limit or MRL (MDL, if reported); however, the MRL (MDL, if reported) is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample. Results assigned this qualifier are considered undetected at the estimated MRL (MDL, if reported).

- J Indicates the analyte was positively indentified; however, the associated numerical value is the approximate concentration of the analyte in the sample. Results assigned this qualifier as considered and detected at an estimated value.

- R Indicates the presence or absence of the analyte cannot be confirmed due to serious laboratory deficiencies in the ability to analyze the sample and meet quality control criteria. Results assigned this qualifier are rejected and considered unusable.

REFERENCES:

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