

# Data Gap Investigation Report Former Weyerhaeuser Mill Site Oregon Department of Environmental Quality ECSI #1083 Coos County, Oregon

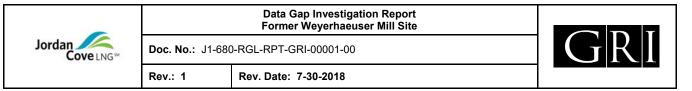
| 1                              | 7/30/ | 2018    |          | Reissued for Use  | Э          | M. Marshall G. Freitag S |            | S. Schlechter |                     |  |  |
|--------------------------------|-------|---------|----------|-------------------|------------|--------------------------|------------|---------------|---------------------|--|--|
| 0A                             | 05/2  | 5/18    |          | Issued for Review | N          | M. Marshall              | G. Freitag | S. Schlechter |                     |  |  |
| 0                              | 04/2  | 6/18    |          | Issued for Use    |            | M. Marshall G. Freitag   |            | S. Schlechter |                     |  |  |
| А                              | 03/2  | 3/18    |          | Issued for Review | N          | M. Marshall              | G. Freitag | S. Schlechter |                     |  |  |
| REV                            | DA    | TE      |          | DESCRIPTION       |            | BY                       | СНКД       | APPVD         | COMPANY<br>APPROVAL |  |  |
| IP SECUR                       | RITY  | □ c     | onfident | ial               |            | Total amou               | 348        |               |                     |  |  |
| FOR                            |       |         | Contra   | act No.           |            | Contractor Document No.  |            |               |                     |  |  |
| CONTRACTOR<br>DOCUMENTS<br>JCL |       | GRI-020 |          |                   |            | FOR USE                  |            |               |                     |  |  |
|                                |       | Pro     | j. Code  | Unit / Location   | Discipline | <b>Doc.</b> Туре         | Orig. Code | Sequence No.  | Sheet No.           |  |  |
| DOCUMENT<br>NUMBER             |       |         | J1       | 680               | RGL        | RPT                      | GRI        | 00001         | 00                  |  |  |

|                     |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |  |
|---------------------|------------------|--|--|
| Jordan<br>Cove LNG™ | Doc. No.: J1-680 | GRI  |  |
|                     | Rev.: 1          | Rev. Date: 7-30-2018   |  |

# **Revision Modification Log**

| Document Title : | Rev. :      |  |
|------------------|-------------|--|
|                  |             |  |
| Document No. :   | Rev. Date : |  |

| Page<br>No. | Section | Change Description |
|-------------|---------|--------------------|
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |
|             |         |                    |



**Data Gap Investigation Report** 

# Former Weyerhaeuser Mill Site

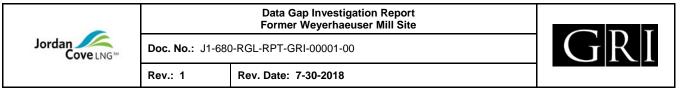
Oregon Department of Environmental Quality ECSI #1083 Coos County, Oregon

Prepared by



Oregon & Washington

July 30, 2018



#### DATA GAP INVESTIGATION EXECUTIVE SUMMARY

The former mill site was originally developed for a neutral-sulfite, semi-chemical process mill by the Menasha Wooden Ware Corporation in 1961. The mill consisted of main mill/paper machine building, shipping warehouse, maintenance/operations buildings, office space, repair shops, and storage. Weyerhaeuser purchased the mill in 1981 and operated at the site until approximately 2003. Multiple environmental investigations have been completed at the site to identify and characterize soil and groundwater conditions following the industrial use of the property (PES, 2006), which identified residual contamination that remains at the former Weyerhaeuser site. The Oregon Department of Environmental Quality (DEQ) approved leaving this contamination in place because it is not present at concentrations that pose an unacceptable risk to human health, safety, welfare, and the environment, and No Further Action (NFA) was appropriate. DEQ's approval to leave contamination on the site recommended the extent of residual concentrations from a hydraulic oil release in the vicinity of the south "lowerator" be determined by supplementary investigation.

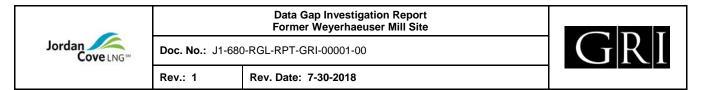
A data gap evaluation, conducted by GRI in 2015, identified additional data needs after review of existing information and recommended additional investigation to evaluate data needs and obtain the data necessary to assess potential human health and ecological risk to potential site receptors (GRI, 2015).

GRI prepared a Data Gap Investigation Work Plan and Site-Specific Safety Plan (SSSP), which describes the objectives, methods, and overall approach to obtaining the soil and groundwater data. DEQ approved the work plan in a letter dated January 22, 2018. In addition to delineating the extent of the residual concentrations near the south "lowerator," the work plan identified other locations for soil and groundwater chemical data collection to evaluate additional data gaps identified at the site previously (GRI, 2015) and provide current chemical data for the low-level residual industrial chemicals in soil and groundwater compared to current DEQ Risk-Based Concentrations (RBCs) as a preliminary screening approach to identify potential human health risks (DEQ, 2018). Based on anticipated continued industrial use of the site, the applicable RBC exposure pathways includes soil ingestion, inhalation, and dermal contact under the occupational, construction, and excavation worker exposure scenarios and groundwater in excavation for construction and excavation workers.

The range of polynuclear aromatic hydrocarbons (PAHs), metals, and/or petroleum hydrocarbons concentrations detected during this investigation are generally within the range of concentrations detected by the previous environmental investigation completed at the site by others (PES, 2006) that were used as the basis for the NFA determination issued by DEQ in 2006. However, where comparative analysis exists, the concentrations of PAHs, metals, and/or petroleum hydrocarbons detected during this investigation are typically detected at concentrations less than those detected in 2006. The 2006 investigation compared analytical results to a combination of regulatory levels that included DEQ RBCs published in 2003 and EPA Region 9 Preliminary Remediation Goals, dated October 2004. This report compares analytical results to the current RBCs published by DEQ in 2018.

Current chemical concentrations from soil and groundwater testing compared to generic RBCs indicate subsurface soils in the Fuel-Oil Release Area (FO), Chip Truck Hydraulic Lift Area (CT), Stream Channel Area (SC), North and South "Lowerators" Area (NL/SL), Former Mobile/Paint/Fuel Shops Area (SH), Mobile Shop Area (MO), South Jordan Point Debris Area (JP), Boiler and Powerhouse Area (BP), Debarker Area (DB), and fire suppression building areas of the site contain PAHs, metals, and/or





petroleum hydrocarbons at concentrations greater than the applicable RBCs considered. The SC, SH, MO, and JP areas of the site contain arsenic and/or chromium concentrations that exceed applicable RBCs but are below the natural background concentrations for the Coast Range (DEQ, 2018). In our opinion, the elevated metal concentrations likely represent natural background concentrations and are not indicative of anthropogenic sources. Concentrations detected in groundwater samples are below the applicable RBCs considered.

Based on comparison of the analytical results from the Data Gap Investigation to current generic RBCs developed by DEQ (2018) the following areas evaluated in this investigation have concentrations of PAHs, metals, and/or petroleum hydrocarbons that exceed RBCs for soil and we recommend mitigation in these areas if land use activities at the site change:

- Fuel Oil Release Area (FO) Naphthalene (46.8 mg/kg) exceeds the occupational RBC (23 mg/kg)
- Chip Truck Hydraulic Lift Area (CT) Oil (6,190 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
- "Lowerators" Area (NL/SL) Oil (61,500 mg/kg) exceeds occupational and construction worker RBCs of 4,600 and 14,000 mg/kg, respectively
- Boiler and Powerhouse Area (BP):

Benzo(a)pyrene (2.27 mg/kg) exceeds occupational RBCs (2.1 mg/kg)

Naphthalene (92 mg/kg) exceeds the occupational RBCs (23 mg/kg)

Diesel (27,660 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)

Oil (14,000 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)

- Debarker Area (DB) Oil (6,130 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
- Fire-Suppression Diesel AST Area Chromium (743 mg/kg) exceeds the construction worker RBC (49 mg/kg) and the default natural background concentration (240 mg/kg) for the Coast Range (DEQ, 2018)

Consistent with the recommendation of the NFA determination, the recent data collected for this investigation should be used to evaluate if subsequent remedial mitigation efforts are necessary to reduce the concentration of contaminants in soil. If land use activities at the site change, we recommend that remedial mitigation efforts be considered to:

- Mitigate future potential risk to human health, safety, welfare, and the environment by lowering the residual concentrations or eliminating exposure; and
- Satisfy the requirements and recommendations of the NFA determination.





Rev.: 1

#### Data Gap Investigation Report Former Weyerhaeuser Mill Site

Doc. No.: J1-680-RGL-RPT-GRI-00001-00

G|R|I

Rev. Date: 7-30-2018

# TABLE OF CONTENTS

| DATA GAP INVESTIGATION EXECUTIVE SUMMARY   |  |
|--|--|
| INTRODUCTION   |  |
| BACKGROUND   |  |
| METHODS  |  |
| Field Exploration Activities   |  |
| RESULTS  |  |
| 1: FUEL-OIL RELEASE AREA (FO)  |  |
| Data Gap Investigation Results<br>Soil Analytical Results<br>Groundwater Analytical Results<br>Fuel-Oil Release Area Investigation Findings        |  |
| 2: MINERAL SPIRITS RELEASE AREA (MS)   |  |
| Data Gap Investigation Results<br>Soil Analytical Results<br>Groundwater Analytical Results<br>Mineral Spirits Release Area Investigation Findings |  |
| 3: TRUCK SCALES AND CARPENTER SHOP (TS/CS)   |  |
| Data Gap Investigation Results<br>Soil Analytical Results<br>Groundwater Analytical Results<br>Truck Scales Carpenter Shop Investigation Findings  |  |
| 4: CHIP TRUCK HYDRAULIC LIFT AREA (CT)   |  |
| Data Gap Investigation Results<br>Soil Analytical Results<br>Groundwater Analytical Results<br>Chip Truck Investigation Findings                   |  |
| 5: HOG FUEL HYDRAULIC LIFT AREA (HF)   |  |
| Data Gap Investigation Results<br>Soil Analytical Results<br>Groundwater Analytical Results<br>Hog Fuel Area Investigation Findings                |  |
| 6: STREAM CHANNEL AREA (SC)  |  |
| Data Gap Investigation Results<br>Soil Analytical Results<br>Stream Channel Area Investigation Findings  |  |
| 7: NORTH AND SOUTH "LOWERATORS" AREA (NL/SL)   |  |
| Data Gap Investigation Results   |  |





#### Data Gap Investigation Report Former Weyerhaeuser Mill Site

Doc. No.: J1-680-RGL-RPT-GRI-00001-00

Rev. Date: 7-30-2018



| Soil Analytical Results                                |  |
|--|--|
| GROUNDWATER ANALYTICAL RESULTS                         |  |
| North and South Lowerators Area Investigation Findings |  |
| 8: FORMER MOBILE/PAINT/FUEL SHOPS AREA (SH)            |  |
| Data Gap Investigation Results                         |  |
| Soil Analytical Results                                |  |
| Groundwater Analytical Results                         |  |
| Former Shops Area Investigation Findings               |  |
| 9: MOBILE SHOP AREA (MO)                               |  |
| Data Gap Investigation Results                         |  |
| Soil Analytical Results                                |  |
| Groundwater Analytical Results                         |  |
| Mobile Shop Area Investigation Findings                |  |
| 10: SOUTH JORDAN POINT DEBRIS AREA (JP)                |  |
| Data Gap Investigation Results                         |  |
| Soil Analytical Results                                |  |
| GROUNDWATER ANALYTICAL RESULTS                         |  |
| Jordan Point Area Investigation Findings               |  |
| 11: BOILER AND POWERHOUSE AREA (BP)                    |  |
| Data Gap Investigation Results                         |  |
| Soil Analytical Results                                |  |
| Groundwater Analytical Results                         |  |
| Boiler and Powerhouse Area Investigation Findings      |  |
| 12: DEBARKER AREA (DB)                                 |  |
| Data Gap Investigation Results                         |  |
| Soil Analytical Results                                |  |
| GROUNDWATER ANALYTICAL RESULTS                         |  |
| Debarker Area Investigation Findings                   |  |
| 13: FIRE-SUPPRESSION DIESEL AST AREA (FS)              |  |
| Data Gap Investigation Results                         |  |
| Soil Analytical Results                                |  |
| Fire-Suppression Building Investigation Findings       |  |
| FINDINGS AND CONCLUSIONS                               |  |
| Remedial Mitigation                                    |  |
| LIMITATIONS  |  |
| SIGNATURES   |  |
|  |  |





G|R|I

Rev. Date: 7-30-2018

Doc. No.: J1-680-RGL-RPT-GRI-00001-00

# TABLE OF CONTENTS (Continued)

#### LIST OF FIGURES

- Figure 1: Vicinity Map
- Figure 2: Exploration Locations
- Figure 3: Exploration Locations (Fuel Oil Release Area)

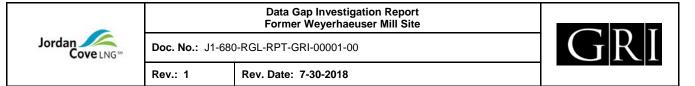
Rev.: 1

- Figure 4: Exploration Locations (Mineral Spirits and Lowerators)
- Figure 5: Exploration Locations (Truck Scales and Carpenter Shop)
- Figure 6: Exploration Locations (Chip Truck Lift and Hog Fuel Lift)
- Figure 7: Exploration Locations (Jordan Point and Stream Channel Area)
- Figure 8: Exploration Locations (Former Shops and Debarker)
- Figure 9: Exploration Locations (Mobile Shops and Jordan Point)
- Figure 10: Exploration Locations (Boiler and Powerhouse)
- Figure 11: RBC Exceedance in Soil North Area
- Figure 12: RBC Exceedance in Soil South Area

#### APPENDICES

| Appendix A: | Boring Logs                   |
|-------------|-------------------------------|
| Appendix B: | Analytical Laboratory Reports |





#### INTRODUCTION

This Data Gap Investigation Report was prepared on behalf of Fort Chicago Holdings II, LLC, (Fort Chicago Holdings) for the former Weyerhaeuser (Weyerhaeuser) containerboard mill (site) located on the North Spit of Coos Bay, Oregon. The general location of the site is shown on Figure 1, the Vicinity Map. Multiple environmental investigations have been completed at the site to identify and characterize soil and groundwater conditions following the industrial use of the property (PES, 2006). These investigations identified residual contamination that remains at the former Weyerhaeuser site. The Oregon Department of Environmental Quality (DEQ) approved leaving this contamination in place because it is not present at concentrations that pose an unacceptable risk to human health, safety, welfare and the environment and No Further Action (NFA) was appropriate. DEQ's approval to leave contamination on the site recommended that the extent of residual concentrations from a hydraulic oil release in the vicinity of the south "lowerator" be determined by supplementary investigation. We understand Weyerhaeuser abandoned the monitoring wells associated with the hazardous-substance investigation and removal actions also recommended in the NFA determination issued by the DEQ in 2006.

Fort Chicago Holdings elected to conduct the supplementary investigation recommended by DEQ in the 2006 NFA and requested GRI prepare a Data Gap Investigation Work Plan and Site Specific Safety Plan (SSSP). The Data Gap Investigation Work Plan describes the objectives, methods, and overall approach to obtaining the soil and groundwater data and was provided to the site owner and DEQ for review and comment. DEQ approved the work plan in a letter dated January 22, 2018. In addition to delineating the extent of the residual concentrations near the south "lowerator", the work plan identified other locations for soil and groundwater chemical data collection to evaluate additional data gaps identified at the site previously (GRI, 2015) and provide current chemical data for the low level residual industrial chemicals in soil and groundwater. Our work included 1) review of DEQ files associated with Environmental Cleanup Site Information (ECSI) #1083, 2) collection of three shallow soil samples and completion of 104 exploratory borings to collect soil and groundwater samples, 3) chemical evaluation of the samples aimed to address data gaps, and 4) generation of this report.

The sample locations and chemical evaluation described in this report were designed to help identify the lateral and vertical extents of the low levels of residual contamination allowed to remain at the Main Mill Complex of the site as described in the NFA determination by DEQ and generate up-to-date chemical data. The concentrations of detected contaminants are compared to current DEQ Risk-Based Concentrations (RBCs) as a preliminary screening approach to identify potential human health risks (DEQ 2018). Considering the current industrial zoning for the site, reasonably anticipated future land use includes commercial or industrial operations. Based on anticipated continued use for industrial activities at the site, the applicable RBC exposure pathway includes soil ingestion, inhalation, and dermal contact under the occupational, construction, and excavation worker exposure scenarios. For groundwater, the applicable RBC exposure pathway includes and groundwater is not likely to be used for potable water supply. No RBC values have been established specifically for hydraulic oil; however, detected oil concentrations in soil and groundwater have been compared to DEQ natural background concentrations for metals (DEQ, 2018).

#### BACKGROUND

The former mill site was originally developed for a neutral-sulfite, semi-chemical process mill by the Menasha Wooden Ware Corporation in 1961. The mill consisted of main mill / paper machine building,



|                      |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |  |
|----------------------|------------------|--|--|
| Jordan<br>Cove LNG** | Doc. No.: J1-680 | GRI  |  |
|                      | Rev.: 1          | Rev. Date: 7-30-2018   |  |

shipping warehouse, maintenance / operations buildings, office space, repair shops, and storage. Weyerhaeuser purchased the mill in 1981 and operated at the site until approximately 2003.

The site is listed in the DEQ ECSI regulatory database (ECSI #1083). In April 1996, DEQ identified several areas of concern at the site. In 2006, PES Environmental, Inc. (PES), identified 13 areas of concern at the site where soil and groundwater contamination was suspected based on review of data from past environmental assessment work, observations of site conditions at the time, Weyerhaeuser knowledge of past practices, a 1996 DEQ Strategy Recommendation Memorandum, and findings of a Phase I Environmental Site Assessment completed by Delta Environmental Consultants (Delta) in 2004 (PES, 2006).

A data gap evaluation, conducted by GRI in 2015, identified additional data needs after review of existing information. Additional details on the evaluation and identification of data gaps can be found in the September 28, 2015, report by GRI titled "Data Gap Evaluation and Work Plan, South Dunes Site Oregon Department of Environmental Quality ECSI #1083, Coos County, Oregon." Additional investigation was recommended to evaluate data needs and obtain the data necessary to assess potential human health and ecological risk to potential site receptors.

#### METHODS

This section describes the methods used for the completion of field activities. The methods were developed to supplement previously available investigation data and identify current soil and groundwater environmental conditions. Data gap investigation activities included the collection of soil and groundwater samples and chemical analysis described in greater detail below.

#### Field Exploration Activities

Subsurface explorations were completed at the site between January 29 and February 14, 2018. Field activities complied with applicable Occupational Safety and Health Administration (OSHA) regulations for geo-environmental drilling. The GRI field supervisor served as the Site Health and Safety Officer and led the daily tailgate safety meetings. A general summary of field activities is provided below.

- Site Access GRI personnel and subcontractors accessed the locations of the subsurface explorations within the project site from the locked gate at the north end of the site. Access to the locations was coordinated with the property owner. No significant site clearing was conducted during field activities at the exploration locations. Minor areas of soil were disturbed for borings located at Jordan Point from the turning action of the drill rig.
- Exploration Layout and Utility Locates The subsurface exploration locations were located and marked with white marking paint or survey stakes with white flagging by GRI personnel on January 16 and 17, 2018. Each exploration location was evaluated for potential conflicting utilities by both One-Call Utility Notification Service and a private utility locating service.
- Subsurface Explorations The subsurface exploration program included 104 direct-push borings drilled from a track-mounted drill rig. Boring locations are





Rev.: 1

Rev. Date: 7-30-2018



presented on Figures 2 through 10. Each boring was advanced to depths ranging from 4 to 45 ft, with the majority of borings advanced to a depth of 15 ft. Borings were advanced in areas of known or suspected contamination to further evaluate and constrain identified data gaps. Due to the exploratory nature of the investigation, the location of borings presented on Figures 2 through 10 are different than those proposed in the Data Gap Investigation Work Plan (GRI, 2018).

Subsurface explorations were backfilled with bentonite and abandoned in accordance with Oregon Water Resources Department regulations. The drilling and sampling was accomplished under the direction of an experienced certified engineering geologist from GRI, who located the general areas of the subsurface explorations and maintained a log of the materials and conditions encountered during the course of the work. Boring logs are included in Appendix A. The explorations were completed by Stratus Corporation, Inc., of Gaston, Oregon. Borings were located using a recreational-grade GPS unit with a horizontal accuracy of about 15 ft.

■ Soil Sampling - Soil samples were obtained from the borings by advancing a continuous sampler in 5-ft intervals and then removing the sample core from the borehole before advancing the next 5-ft interval. The core was contained in a clear acetate sleeve inside the sample barrel. The soil core sleeves were extracted from the core barrel and opened in the field to allow visual classification of soils and qualitative observation of indications of contamination (sheen, odor, discoloration). Field screening results are used as a general guideline to assess areas of possible contamination. The field screening methods used included visual screening and organic vapor screening using a calibrated Photo Ionization Detector (PID).

The effectiveness of field screening varies with temperature, moisture content, organic content, soil type and type and age of contaminant. The presence or absence of a sheen, odor, discoloration, or volatile organic compound (VOC) vapors does not necessarily indicate the presence or absence of significant contamination. Visual screening consists of observing soil and groundwater for indications of contamination. Sheen observations involved placing a small amount of soil in water and observing the water surface for signs of sheen.

No Sheen: No visible sheen on the water surface.

*Slight Sheen:* Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly. Natural organic matter in the soil may produce a slight sheen.

*Moderate Sheen:* Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; few remaining areas of no sheen on the water surface.



|                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |  |
|------------------|--|--|
| Doc. No.: J1-680 | GRI  |  |
| Rev.: 1          | Rev. Date: 7-30-2018   |  |

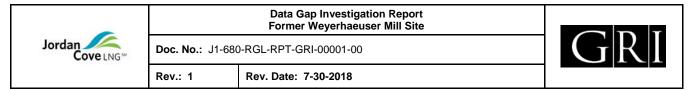
*Heavy Sheen:* Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening evaluates the presence of VOC in the field. Headspace vapor screening involves placing a soil sample in a sealed container and measuring the vapors with PID to record the presence of organic vapors.

Soil samples for chemical analysis were selected based on results of the field screening and data needs to address potential data gaps. Sample designations in this report are codified by investigation area, followed by boring number, and the sample depth. For example, the sample designated FO-111-8 was collected from the fuel-oil release area (FO), from boring number 111, at a depth of 8 ft. Clean nitrile gloves and stainless-steel sampling tools were used for sample collection. The sampling tools were cleaned with a solution of Alconox detergent and water and then rinsed with distilled water between samples. Clean, laboratory-supplied glass sample containers were filled as full as possible and sealed with air-tight, Teflon-lined caps. Samples were stored in a cooler with ice for transport to the analytical laboratory.

- **Groundwater Sampling** Groundwater samples were collected from a temporary well point and brought to the ground surface by a peristaltic pump. Groundwater samples were designated with the area prefix (e.g. Fuel-oil release area samples are designated "FO"), the boring number (e.g. 111), and the letter "W." For example, groundwater sample FO-111-W was collected from boring FO-111 in the fuel-oil release area.
- Chemical Analysis Sample containers were labelled, recorded on a chain-of-custody form, placed in a cooler with ice, and later transported to ESC Lab Sciences in Mount Juliet, Tennessee, for chemical analysis. Chemical analysis included Northwest Method Total Petroleum Hydrocarbons (NWTPH) diesel (Dx) and gasoline (Gx) range organics, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270SIM, volatile organic compounds (VOCs) by EPA Method 8260, polychlorinated biphenyls PCBs) by EPA Method 8082, and Priority Pollutant Metals (metals) by EPA Method 3010B, 6020, 7470A, and 7471A. The analyses were completed within a standard turnaround time.
- Cuttings and Drilling Fluids Cuttings, decontamination fluids, and other investigation derived wastes (IDW) were produced while completing the borings. Cuttings and fluids obtained from the explorations and from equipment decontamination were contained in 55-gal. steel drums and temporarily stored on site. At the completion of the subsurface explorations, the drums were removed from the site and the IDW disposed (in accordance with appropriate regulations) at Hillsboro Landfill in May of 2018.





#### RESULTS

A total of 13 areas are addressed in this report: 1) fuel-oil release area (FO), 2) mineral spirits release area (MS), 3) truck scales (TS) and carpenter shop (CS), 4) chip truck hydraulic lift area (CT), 5) hog fuel hydraulic lift area (HF), 6) stream channel area (SC), 7) north (NL) and south (SL) "lowerators," 8) former paint/mobile/fuel shops (SH), 9) mobile shop (MO), 10) South Jordan Point debris area (JP), 11) Boiler and Powerhouse (BP), 12) debarker area (DB), and 13) during the field activities, an above-ground storage tank (AST) cradle was identified adjacent to the fire suppression support building. The field team agreed with the property owner to collect a shallow soil sample just east of the fire support building below the footprint of the former AST.

During the course of the work, daily site-visit reports were provided to the property owner describing the work accomplished that day and presented an estimate of the field activities work planned for the following day. The site-visit reports served to inform the project team the daily findings and results of the investigation field work for discussion and planning.

#### 1: FUEL-OIL RELEASE AREA (FO)

**Background.** A fuel line ruptured near the main mill entrance in 1989 and released an estimated 3,000 gal. of fuel oil. An initial cleanup action by Weyerhaeuser removed 110 cu yd of soil and 27,760 gal. of oily groundwater. In 1991 Weyerhaeuser removed an additional 950 cu yd of soil. Soil and groundwater was evaluated by four soil borings and two groundwater monitoring wells around the perimeter of the soil excavation in March 1992. Soil and groundwater from the borings did not contain detectable concentrations of TPH or benzene, toluene, ethylbenzene, and xylenes (BTEX). Analysis for TPH (diesel and oil) and PAHs was conducted on soil samples from six test pits, and soil and groundwater from one direct-push boring indicated that detectable concentrations of TPH were not encountered in soil or groundwater. Two PAH compounds were detected in groundwater at concentrations below applicable RBCs.

**Data Gap Evaluation.** However, the six test pits and one direct-push boring were completed outside of the former above-ground fuel oil storage tank area. Additionally, fuel oil is also referred to as cutter stock oil and reprocessed fuel oil, which is a combination of Bunker C residual and recycled used oil. Recycled used oil can contain VOCs and metals, which were not analyzed for during the investigation by PES (PES, 2006).

#### Data Gap Investigation Results

Ten borings were completed in the Fuel-Oil Release Area. Exploration data and field observations are summarized in the table below. Boring locations are shown on Figure 3.

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID,<br>ppm | DTW,<br>ft | TD, ft | Sheen  | Odor   | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|-------------|------------|--------|--------|--------|-------------------|------------|----------|
| FO-            | 110                 | GW                  |             | 2.8        | 15.0   | No     | No     | 1/30/2018         | -124.23941 | 43.43640 |
| FO-            | 111                 | GS                  | 32.5        | 3.5        | 20.0   | Slight | Slight | 1/30/2018         | -124.23937 | 43.43628 |

#### FUEL-OIL RELEASE AREA EXPLORATION SUMMARY



|                      |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |
|----------------------|------------------|--|-----|
| Jordan<br>Cove LNG** | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00   | GRI |
|                      | Rev.: 1          | Rev. Date: 7-30-2018   |     |
|                      |                  |  |     |

| Area<br>Prefix | Exploration<br>ID # | Sample collected | PID,<br>ppm | DTW,<br>ft | TD, ft | Sheen  | Odor     | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|------------------|-------------|------------|--------|--------|----------|-------------------|------------|----------|
| FO-            | 112                 | SS               |             | 2.4        | 15.0   | No     | No       | 1/30/2018         | -124.23953 | 43.43613 |
| FO-            | 113                 | SS               |             | 3.5        | 15.0   | No     | No       | 1/30/2018         | -124.23925 | 43.43634 |
| FO-            | 114                 | SS               |             | 3.4        | 15.0   | Slight | No       | 1/30/2018         | -124.23926 | 43.43627 |
| FO-            | 115                 | NS               | 8.1         | 3.1        | 20.0   | Slight | Slight   | 1/30/2018         | -124.23937 | 43.43625 |
| FO-            | 116                 | SS               | 1.9         | 3.6        | 15.0   | No     | Moderate | 1/31/2018         | -124.23943 | 43.43630 |
| FO-            | 117                 | SS               | 0.7         | 3.1        | 15.0   | No     | No       | 1/31/2018         | -124.23920 | 43.43617 |
| FO-            | 118                 | GS               | 0.0         | 2.4        | 15.0   | No     | No       | 1/31/2018         | -124.23883 | 43.43611 |
| FO-            | 203                 | SS               | 1.3         | -          | 10.0   | No     | No       | 2/14/2018         | -124.23934 | 43.43616 |

GW = Groundwater sample collected only

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

NS = No samples were collected from this boring.

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

A slight sheen was observed in three borings at a depth of:

- 8 to 10 ft in boring FO-111
- 9.25 to 12.5 ft in boring FO-114
- 8.5 to 17.5 ft in FO-115

A light to moderate odor was observed in three borings at a depth of:

- 8 to 10 ft in boring FO-111
- isolated at 8.5 ft in boring FO-115
- isolated at 10 ft in boring FO-116

#### Soil Analytical Results

Based on field screening, six soil samples (FO-111-8, FO-113-8, FO-114-13, FO-116-14, FO-118-4, and FO-203-9) were analyzed from the fuel-oil release area. Laboratory results are summarized in Table 1 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the fuel-oil release area contains metals, VOCs, PAHs, diesel, oil, and gasoline.

**Metals.** Chemical analytical results indicate antimony, cadmium, selenium, silver, and thallium were not detected in soil sample FO-118-4. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in FO-118-4 at a concentration of







3.12 milligrams per kilogram (mg/kg), which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in FO-118-4 at concentrations of 7.5 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, these concentrations are total chromium concentrations. Additionally, the detected chromium concentration in sample FO-118-4 is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

**VOCs.** A total of 12 VOC compounds were detected in soil samples. With the exception of naphthalene, chemical analytical results indicate VOCs were detected below applicable RBCs. Naphthalene was detected in soil sample FO-111-8 at a concentration of 46.8 mg/kg, which exceeds the occupational RBC of 23 mg/kg.

**PAHs.** PAHs were not detected in soil samples FO-116-14, FO-118-4, and FO-203-9. Chemical analytical results indicate a total of 17 PAH compounds were detected in soil samples from FO-111-8, FO-113-8, and FO-114-13 at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel (up to 375 mg/kg), oil (477 mg/kg), and gasoline (1.66 mg/kg) were detected in soil samples at concentrations below applicable RBCs.

# **Groundwater Analytical Results**

Three groundwater samples (FO-110-W, FO-111-W, and FO-118-W) were analyzed from the fuel-oil release area. Laboratory results are summarized in Table 2 at the end of this report and in the analytical laboratory report included as Appendix B. VOCs were not detected in groundwater samples collected from the fuel-oil release area. Chemical testing indicates that groundwater in the fuel-oil release area contains metals, PAHs, and diesel.

**Metals.** Chemical analytical results indicate antimony, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate that other metals detected in groundwater are below applicable RBCs.

**PAHs.** Chemical analytical results indicate a total of five PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate oil and gasoline were not detected in the groundwater sample collected from the fuel-oil release area. Diesel was detected in the groundwater sample at a concentration of 0.0416 milligrams per liter (mg/L).



|                                 |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |
|---------------------------------|------------------|--|-----|
| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680 | 0-RGL-RPT-GRI-00001-00   | GRI |
|                                 | Rev.: 1          | Rev. Date: 7-30-2018   |     |

# Fuel-Oil Release Area Investigation Findings

The analytical results indicate detected concentrations of arsenic in soil sample FO-118-4 and naphthalene in soil sample FO-111-8 exceed the applicable RBC. Arsenic was detected in sample FO-118-4 at a concentration of 3.12 mg/kg, which exceeds the applicable RBC but is below the natural background concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample FO-118-4 at a concentration of 7.5 mg/kg, which exceeds the applicable RBC, but is below the natural background background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

Observations of petroleum sheen and odor were clustered in borings FO-111, FO-114, FO-115, and FO-116. Naphthalene was detected in soil sample FO-111-8 at a concentration of 46.8 mg/kg from the VOC analysis and 0.372 mg/kg from the PAH analysis. The concentration of naphthalene exceeds the occupational RBCs of 23 mg/kg. The absence of elevated concentrations of naphthalene in other soil samples, including from boring FO-114 and FO-116, suggests soil exceeding the occupational RBC for naphthalene is limited to a small area surrounding boring FO-111. A slight petroleum sheen and light odor were observed in boring FO-111 from 8-10 ft. Based on the observations and chemical data collected for this assessment, the volume of soil exceeding the applicable RBC for naphthalene is estimated to be approximately 200 cubic yards.

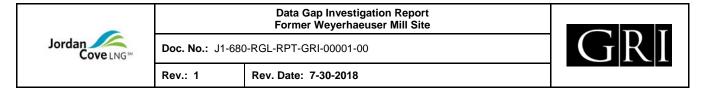
The analytical results indicate detected concentrations of analytes in groundwater do not exceed applicable RBCs in the Fuel-Oil Release area.

# 2: MINERAL SPIRITS RELEASE AREA (MS)

**Background.** Mineral spirits used to clean pitch from paper machine components were released from former above-ground storage tank (AST) and underground storage tanks (USTs) on the north side of the paper machine building. An air sparge / soil vapor extraction (AS/SVE) system was installed and operated from 1992 to 1994 to remediate contaminated groundwater. The AS/SVE system was decommissioned in 1994 following groundwater monitoring results indicating concentrations declined to below regulatory levels. PES collected groundwater samples in 2005 from three groundwater wells and three direct-push borings and analyzed for TPH (diesel and oil), PAHs, and VOCs. Soil samples were collected from three direct-push borings and analyzed for TPH (diesel, oil, and gasoline), PAHs, and VOCs. Diesel, mineral spirits, gasoline, and oil-range TPH and six VOC compounds were detected in one soil sample. Diesel, gasoline, PAHs, and VOCs were detected in groundwater in the mineral spirits release area. However, the concentrations of detected contaminants in soil and groundwater samples were less than applicable RBCs.

**Data Gap Evaluation.** Additional data needs were not identified in the Mineral Spirits Release area. However, the DEQ indicated in the No Further Action letter, that residual contamination remaining in the Mineral Spirits Release area includes low levels of petroleum hydrocarbon contamination below the concrete slab. Soil and groundwater below the concrete slab were evaluated to obtain recent chemical data and extent of residual mineral spirits.





#### Data Gap Investigation Results

Eight borings were completed in the Mineral Spirits Release Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 4.

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID<br>(ppm) | DTW<br>(ft) | TD<br>(ft) | Sheen | Odor  | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|--------------|-------------|------------|-------|-------|-------------------|------------|----------|
| MS-            | 131                 | GS                  | 300.0        | 4.8         | 25         | No    | Heavy | 2/2/2018          | -124.23936 | 43.43481 |
| MS-            | 132                 | SS                  | 2.6          | 4.6         | 15         | No    | No    | 2/2/2018          | -124.23946 | 43.43480 |
| MS-            | 133                 | SS                  | 0.3          | 8.3         | 15         | No    | No    | 2/2/2018          | -124.23917 | 43.43477 |
| MS-            | 134                 | GW                  | 0.3          | 4.7         | 15         | No    | No    | 2/3/2018          | -124.23936 | 43.43461 |
| MS-            | 135                 | NS                  | 0.0          | 4.5         | 15         | No    | No    | 2/5/2018          | -124.23958 | 43.43494 |
| MS-            | 136                 | GS                  | 0.0          | 4.5         | 15         | No    | No    | 2/5/2018          | -124.23925 | 43.43491 |
| MS-            | 184                 | NS                  | 1.4          | -           | 4          | No    | No    | 2/12/2018         | -124.23917 | 43.43428 |
| MS-            | 185                 | SS                  | 3.8          | 0.5         | 15         | No    | No    | 2/12/2018         | -124.23917 | 43.43421 |

#### MINERAL SPIRITS RELEASE AREA EXPLORATION SUMMARY

GW = Groundwater sample collected only

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

NS = No samples were collected from this boring

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

#### Soil Analytical Results

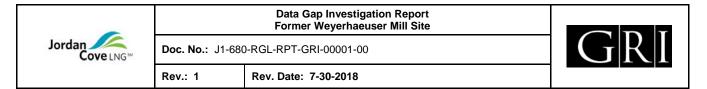
Five soil samples (MS-131-9, MS-131-21, MS-132-9, MS-133-9, and MS-185-4) were analyzed from the Mineral Spirits Release area. Laboratory results are summarized in Table 3 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Mineral Spirits Release area contains VOCs, PAHs, diesel, and oil.

**VOCs.** A total of ten VOC compounds were detected in soil samples. Chemical analytical results indicate VOCs were detected below applicable RBCs.

**PAHs.** PAHs were not detected in soil samples MS-132-9 and MS-133-9. Chemical analytical results indicate a total of 16 PAH compounds were detected in the remaining soil samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel was not detected in soil samples MS-131-21 and MS-185-4, and oil was not detected in soil sample MS-131-21. Analytical results indicate diesel was detected in sample MS-131-9 at a concentration below applicable RBCs. Oil was detected in soil samples MS-131-9 and MS-185-4 at





concentrations of 69.6 and 4.59 mg/kg respectively; which are below the applicable RBCs.

#### **Groundwater Analytical Results**

Three groundwater samples (MS-131-W, MS-134-W, and MS-136-W) were collected from the Mineral Spirits Release area. Laboratory results are summarized in Table 4 at the end of this report and in the analytical laboratory report included in Appendix B. Chemical testing indicates that groundwater in the Mineral Spirits Release area contains metals, VOCs, PAHs, diesel, oil, and gasoline.

**Metals.** Chemical analytical results indicate beryllium, cadmium, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate other metals detected in groundwater at concentrations are below applicable RBCs.

**VOCs.** Chemical analytical results indicate a total of 12 VOC compounds were detected in groundwater samples at concentrations below applicable RBCs.

**PAHs.** Chemical analytical results indicate a total of ten PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Diesel was detected in groundwater at a concentration of 15 mg/L. Oil was detected in groundwater at a concentration of 2.21 mg/L. Gasoline was detected in groundwater at a concentration of 0.38 mg/L. Chemical analytical results indicate petroleum compounds detected in groundwater samples at concentrations below applicable RBCs.

#### **Mineral Spirits Release Area Investigation Findings**

The analytical results indicate detected concentrations of analytes in soil and groundwater samples do not exceed applicable RBCs within the Mineral Spirits Release area.

#### 3: TRUCK SCALES AND CARPENTER SHOP (TS/CS)

**Background.** One gasoline UST and one diesel UST were removed from north of the truck scales and one mineral spirits UST was removed from north of the carpenter shop. Soil sample analysis in 1992 detected gasoline, diesel, ethylbenzene, and xylenes in groundwater from a monitoring well, and total petroleum hydrocarbons in soil from two borings (SEACOR, 1992). In 2005, PES collected groundwater samples from two monitoring wells, soil samples from nine test pits, and soil and groundwater samples from one direct-push boring. Diesel was detected in soil in three test pits and oil was detected in soil in two test pits. Diesel, gasoline, PAHs, and VOCs were detected in groundwater.

**Data Gap Evaluation.** The previous investigation appears to have concentrated on an area to the east of the truck scales. Review of environmental investigations conducted prior to the 2005 investigation indicates residual impacts from the gasoline and diesel USTs are present north of the truck scales. In addition, soil



| Jordan<br>Cove LNG** | Doc. No.: J1-680 | GRI                  |  |
|----------------------|------------------|----------------------|--|
|                      | Rev.: 1          | Rev. Date: 7-30-2018 |  |

and groundwater sampling were not completed north of the carpenter shop in the area of former USTs. The lack of sample data in the vicinity of the decommissioned mineral spirits UST represents a data gap.

# Data Gap Investigation Results

Eight borings were completed in the Truck Scales and Carpenter Shop area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 5.

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID<br>(ppm) | DTW<br>(ft) | TD<br>(ft) | Sheen | Odor   | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|--------------|-------------|------------|-------|--------|-------------------|------------|----------|
| TS-            | 192                 | SS                  | 4.2          | 1.5         | 15         | No    | Slight | 2/13/2018         | -124.24138 | 43.43581 |
| TS-            | 193                 | SS                  | 1.5          | 1.5         | 15         | No    | Slight | 2/13/2018         | -124.24134 | 43.43582 |
| TS-            | 194                 | SS                  | 1.6          | 2.0         | 15         | No    | No     | 2/13/2018         | -124.24126 | 43.43578 |
| TS-            | 195                 | GS                  | 1.8          | 0.5         | 15         | No    | Slight | 2/13/2018         | -124.24134 | 43.43576 |
| CS-            | 196                 | SS                  | 3.4          | 3.2         | 15         | No    | No     | 2/13/2018         | -124.24170 | 43.43584 |
| CS-            | 197                 | SS                  | 0.5          | -           | 15         | No    | No     | 2/13/2018         | -124.24172 | 43.43593 |
| CS-            | 198                 | GS                  | 1.5          | 2.1         | 15         | No    | No     | 2/13/2018         | -124.24187 | 43.43585 |
| TS-            | 204                 | GW                  | 1.4          | 3.0         | 10         | No    | No     | 2/14/2018         | -124.24091 | 43.43631 |

TRUCK SCALES AND CARPENTER SHOP EXPLORATION SUMMARY

GW = Groundwater sample collected only

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

# Soil Analytical Results

Three soil samples (TS-192-8, TS-193-15, and TS-195-11) were analyzed from the truck scales area and one soil sample (CS-198-9) was analyzed from the carpenter shop area. Laboratory results are summarized in Table 5 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Truck Scales area contains PAHs and diesel.

**PAHs.** PAHs were not detected in soil samples TS-193-15 and CS-198-9. Chemical analytical results indicate a total of eight PAH compounds were detected in soil samples TS-192-8 and TS-195-11 at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel was detected in sample TS-192-8 at a concentration of 13.2 mg/kg, which is below the applicable RBCs.

# **Groundwater Analytical Results**

Three groundwater samples (TS-195-W, TS-204-W, and CS-198-W) were analyzed from the Truck Scale and Carpenter Shop areas. Laboratory results are summarized in Table 6 at the end of this report and in the



| Jordan<br>Cove LNG** | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00 | GRI |
|----------------------|------------------|------------------------|-----|
|                      | Rev.: 1          | Rev. Date: 7-30-2018   |     |

analytical laboratory report included as Appendix B. VOCs were not detected in the groundwater sample collected from TS-195-W, with the exception of a low concentration of toluene. Chemical testing indicates that groundwater in the Truck Scales area contains metals, PAHs, and diesel.

**Metals.** Chemical analytical results indicate metals detected in groundwater are below applicable RBCs.

**PAHs.** Chemical analytical results indicate a total of four PAH compounds were detected in groundwater samples at concentrations below applicable RBCs. In addition, two PAH compounds were also detected in the laboratory blank and likely represent a laboratory contaminant not actually present in the sample.

**Petroleum.** Analytical results indicate gasoline was not detected in the groundwater samples collected from the Truck Scales area. Diesel and oil were detected in the groundwater samples at concentrations below applicable RBCs.

# Truck Scales Carpenter Shop Investigation Findings

The analytical results indicate detected concentrations of analytes in soil and groundwater samples do not exceed applicable RBCs within the Truck Scales and Carpenter Shop area.

# 4: CHIP TRUCK HYDRAULIC LIFT AREA (CT)

**Background.** Approximately 150 gal. of hydraulic oil was released in this area in the early 1990s. Soil sample analysis in 1992 detected TPH on the south side of the chip truck hydraulic lift. Additional soil sampling in 1995 detected oil on the north side of the lift. PES collected soil samples from five test pits and soil and groundwater from five direct-push borings in 2005. Analysis of four soil samples detected diesel and oil. Based on the results of TPH analysis, soil samples were also analyzed for PAHs and two compounds were detected. Analysis of two groundwater samples indicated detection of diesel and oil and one groundwater sample detected PAHs. A remedial excavation was completed in the area in 2005 that removed approximately 699.5 tons of soil and 3,315 gal. of contaminated groundwater.

**Data Gap Evaluation.** Diesel, oil, and PAHs were detected in soil and groundwater in the chip truck hydraulic lift area. Following excavation and removal of contaminated soil and groundwater, confirmation samples indicate the concentrations are less than applicable RBCs. Based on the sampling and analysis completed in 2005, it did not appear that there are remaining data gaps in this area. However, some contamination was left in place following remedial activities and the spatial distribution of sample locations suggest that horizontal limits were less than refined.

#### Data Gap Investigation Results

Thirteen borings were completed in the Chip Truck Hydraulic Lift Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 6.



|                      |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |
|----------------------|------------------|--|-----|
| Jordan<br>Cove LNG** | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00   | GRI |
|                      | Rev.: 1          | Rev. Date: 7-30-2018   |     |

| Area   | Exploration | Sample    | PID   | DTW  | TD   |          |          | Date      |            |          |
|--------|-------------|-----------|-------|------|------|----------|----------|-----------|------------|----------|
| Prefix | ID #        | collected | (ppm) | (ft) | (ft) | Sheen    | Odor     | Completed | Longitude  | Latitude |
| CT-    | 142         | GS        | 1.0   | 4.3  | 20   | Moderate | Moderate | 2/5/2018  | -124.24111 | 43.43525 |
| CT-    | 143         | SS        | 0.6   | 3.6  | 15   | No       | No       | 2/5/2018  | -124.24073 | 43.43520 |
| CT-    | 144         | GS        | 0.0   | 3.5  | 20   | No       | No       | 2/5/2018  | -124.24108 | 43.43514 |
| CT-    | 145         | SS        | 0.0   | 3.8  | 20   | Moderate | Heavy    | 2/6/2018  | -124.24121 | 43.43528 |
| CT-    | 146         | SS        | 0.0   | 4.2  | 20   | Slight   | No       | 2/6/2018  | -124.24121 | 43.43519 |
| CT-    | 147         | NS        | 0.0   | 6.2  | 20   | Moderate | Moderate | 2/6/2018  | -124.24103 | 43.43532 |
| CT-    | 148         | SS        | 0.0   | 4.6  | 15   | No       | No       | 2/6/2018  | -124.24099 | 43.43542 |
| CT-    | 149         | SS        | 0.0   | 4.5  | 30   | Slight   | No       | 2/6/2018  | -124.24123 | 43.43537 |
| CT-    | 150         | SS        |       | 3.4  | 20   | Slight   | No       | 2/6/2018  | -124.24132 | 43.43533 |
| CT-    | 151         | GS        |       | 2.5  | 15   | Slight   | No       | 2/6/2018  | -124.24155 | 43.43518 |
| CT-    | 152         | SS        |       | 3.9  | 15   | Slight   | No       | 2/6/2018  | -124.24083 | 43.43525 |
| CT-    | 153         | GW        |       | 2.4  | 15   | No       | No       | 2/7/2018  | -124.24134 | 43.43507 |
| CT-    | 154         | GW        |       | 4.5  | 15   | No       | No       | 2/7/2018  | -124.24155 | 43.43485 |

#### CHIP TRUCK HYDRAULIC LIFT AREA EXPLORATION SUMMARY

GW = Groundwater sample collected only

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

NS = No samples were collected from this boring

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

#### Soil Analytical Results

Seven soil samples (CT-142-11, CT-145-7, CT-145-16, CT-146-13, CT-149-13, CT-149-29, and CT-150-13) were analyzed from the Chip Truck Hydraulic Lift area. Laboratory results are summarized in Table 7 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Chip Truck Hydraulic Lift area contains PAHs, diesel, and oil.

**PAHs.** PAHs were not detected in soil samples CT-145-16, CT-146-13, CT-149-29, and CT-150-13. Chemical analytical results indicate a total of 12 PAH compounds were detected in soil samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel and oil detected were in soil in the Chip Truck area. Oil was detected in sample CT-145-7 at concentration of 6,190 mg/kg, which exceeds the applicable RBC of 4,600 mg/kg.

#### **Groundwater Analytical Results**

Four groundwater samples (CT-142-W, CT-144-W, CT-151-W, and CT-153-W) were analyzed from the Chip Truck Hydraulic Lift area. Laboratory results are summarized in Table 8 at the end of this report and



| Jordan<br>Cove LNG <sup>®®</sup> | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00 | GRI |
|----------------------------------|------------------|------------------------|-----|
|                                  | Rev.: 1          | Rev. Date: 7-30-2018   |     |

in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in Chip Truck Hydraulic Lift area contains PAHs, oil, and diesel.

**PAHs.** Chemical analytical results indicate a total of 10 PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel and oil were detected in the groundwater sample at concentrations below applicable RBCs.

# Chip Truck Investigation Findings

The analytical results indicate the detected concentration of oil in soil exceeds applicable RBCs within the Chip Truck Hydraulic Lift area.

The analytical results indicate detected concentrations of analytes in groundwater samples do not exceed applicable RBCs within the Chip Truck Hydraulic Lift area.

# 5: HOG FUEL HYDRAULIC LIFT AREA (HF)

**Background.** Soil and groundwater samples were collected from seven direct-push borings in 1995. Analysis of the samples indicated that oil was detected between the truck scales and the chip truck lift area. Analysis of soil samples from three test pits detected diesel and oil in one test pit sample at concentrations below applicable RBCs. Analysis for PAHs in the sample with diesel and oil did not detect PAHs.

**Data Gap Evaluation.** The test pits completed to evaluate the hog fuel area were not located within the footprint of the hydraulic lift. Drips and leaks from hydraulic equipment and oil reservoir storage, if they occurred, would be located directly below the lift equipment. Additionally, the groundwater sample used to represent groundwater conditions in the hog fuel hydraulic lift area was located approximately 60 ft south of the equipment location. This distance may not be adequate to represent groundwater characterization of the hog fuel lift.

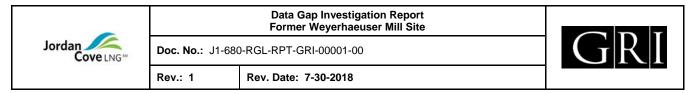
#### Data Gap Investigation Results

Five borings were completed in the Hog Fuel Hydraulic Lift Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 6.

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID<br>(ppm) | DTW<br>(ft) | TD<br>(ft) | Sheen       | Odor | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|--------------|-------------|------------|-------------|------|-------------------|------------|----------|
| HF-            | 137                 | GS                  | 0.9          | 3.6         | 20         | Very Slight | No   | 2/5/2018          | -124.24101 | 43.43557 |
| HF-            | 138                 | NS                  | 1.6          | 3.3         | 15         | No          | No   | 2/5/2018          | -124.24114 | 43.43561 |
| HF-            | 139                 | NS                  | 0.2          | 3.2         | 7          | No          | No   | 2/5/2018          | -124.24094 | 43.43557 |
| HF-            | 140                 | SS                  | 0.0          | 3.5         | 15         | No          | No   | 2/5/2018          | -124.24090 | 43.43560 |
| HF-            | 141                 | SS                  | 0.8          | 3.8         | 15         | No          | No   | 2/5/2018          | -124.24101 | 43.43561 |

#### HOG FUEL AREA EXPLORATION SUMMARY





GS = Both groundwater and soil samples collected

SS = Soil sample collected only

NS = No samples were collected from this boring

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

#### Soil Analytical Results

One soil sample (HF-137-16) was analyzed from the Hog Fuel Hydraulic Lift Area. Laboratory results are summarized in Table 9 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the fuel-oil release area contains a PAH compound, phenanthrene.

**PAHs.** Chemical analytical results indicate phenanthrene was detected at a concentration of 0.000756 mg/kg. There is no established RBC for this compound.

Petroleum. Analytical results indicate diesel and oil were not detected.

#### **Groundwater Analytical Results**

One groundwater sample (HF-137-W) was analyzed from the Hog Fuel Hydraulic Lift area. Laboratory results are summarized in Table 10 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical analytical testing indicates that PAHs were not detected in the groundwater sample collected from the Hog Fuel Hydraulic Lift area. Chemical testing indicates that groundwater in the Hog Fuel Hydraulic Lift area contains diesel and oil.

**Petroleum.** Analytical results indicate diesel and oil were detected in the groundwater sample at concentrations of 0.0964 and 0.163 mg/l respectively, which are below applicable RBCs.

#### Hog Fuel Area Investigation Findings

The analytical results indicate phenanthrene was detected in soil sample HF-137-16 at a concentration of 0.000756 mg/kg. However, no RBCs have been established for this compound. The analytical results indicate soil concentrations do not exceed applicable RBCs within the Hog Fuel Hydraulic Lift area.

The analytical results indicate detected concentrations of diesel and oil do not exceed applicable RBCs within the Hog Fuel Hydraulic Lift area.

#### 6: STREAM CHANNEL AREA (SC)

**Background.** A stream formerly drained south-southeast from the maintenance shop to Coos Bay. The northern segment has been culverted and the southern segment remains open. Sediment samples collected in 2005 from four hand-augered borings completed in the southern portion and one direct-push boring in the northern portion of the channel encountered diesel and oil, three PAHs, and two PCBs.



| Jordan<br>Cove LNG** | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00 | GRI |
|----------------------|------------------|------------------------|-----|
|                      | Rev.: 1          | Rev. Date: 7-30-2018   |     |

**Data Gap Evaluation.** The likely source of contaminants in the stream channel is stormwater runoff from the mill site. Sediment samples were collected in the stream channel area to evaluate the concentration of these contaminants.

# Data Gap Investigation Results

Two shallow explorations were completed in the Stream Channel Area. Stream Channel area samples were not field-screened using the PID. Groundwater samples were not collected from the Stream Channel explorations. Exploration data and observations are summarized in the table below. Exploration locations are shown on Figure 7.

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | DTW<br>(ft) | TD<br>(ft) | Sheen | Odor | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|-------------|------------|-------|------|-------------------|------------|----------|
| SC-            | 205                 | SS                  | -           | 1          | No    | No   | 2/14/2018         | -124.23855 | 43.43208 |
| SC-            | 206                 | SS                  | -           | 1          | No    | No   | 2/14/2018         | -124.23999 | 43.43206 |

#### STREAMCHANNEL AREA EXPLORATION SUMMARY

SS = Soil sample collected only

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

#### Soil Analytical Results

Two soil samples (SC-205-1 and SC-206-1) were analyzed from the Stream Channel area. Laboratory results are summarized in Table 11 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Stream Channel area contains metals, PAHs, oil, and gasoline. Chemical analytical results indicate PCBs were not detected in Stream Channel area soil samples.

**Metals.** Chemical analytical results indicate selenium, silver, and thallium were not detected in soil samples. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in SC-205-1 and SC-206-1 at concentrations of 3.12 and 4.84 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in SC-205-1 and SC-205-1 at concentrations of 80.3 and 7.11 mg/kg respectively, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. The chromium concentration detected in soil sample SC-205-1 also exceeds the construction worker RBC for chromium (VI) of 49 mg/kg. However, these concentrations are total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).



| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00 | GRI |
|---------------------------------|------------------|------------------------|-----|
|                                 | Rev.: 1          | Rev. Date: 7-30-2018   |     |

**PAHs.** Chemical analytical results indicate a total of 18 PAH compounds were detected in soil samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate oil and gasoline were detected in soil samples at concentrations below applicable RBCs.

# Stream Channel Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil samples SC-205-1 and SC-206-1 exceed the occupational RBC, and chromium in soil sample SC-205-1 also exceeds the construction worker RBC. Elevated arsenic concentrations and chromium concentration in SC-206-1 likely represent natural background concentrations and are not indicative of anthropogenic sources. Based on receiving site stormwater runoff and the shallow depth of sample collection, the elevated chromium concentration in SC-205-1 of 80.3 mg/kg when compared to other chromium results potentially represents an anthropogenic source. However, the concentration of chromium in SC-205-1 is less than the natural background concentration of 240 mg/kg.

# 7: NORTH AND SOUTH "LOWERATORS" AREA (NL/SL)

**Background.** Two hydraulic elevators, or "lowerators," were located at the east end of the main mill building to lower paper from the upper floor of the main mill building to the lower floor. The hydraulic equipment was set within concrete walls in a below-grade sump about 10 to 16 ft below the floor of the building. Soil and groundwater samples were collected from two direct-push borings completed near the north and south lowerators and analyzed for diesel, oil, and PAHs. Oil was detected in soil near the south lowerator. Diesel and oil were detected in groundwater less than the applicable RBC.

**Data Gap Evaluation.** PAHs were not detected in soil or groundwater; however, analytical testing results indicate elevated detection limits for PAHs are greater than the applicable RBCs.

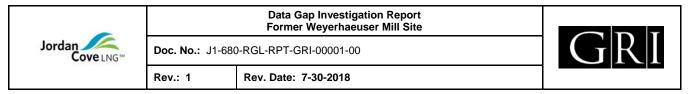
#### Data Gap Investigation Results

Seven borings were completed in the North and South "Lowerators" Area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 4.

| Area   | Exploration | Sample    | PID, | DTW, | TD, |       |          | Date      |            |          |
|--------|-------------|-----------|------|------|-----|-------|----------|-----------|------------|----------|
| Prefix | ID #        | collected | ppm  | ft   | ft  | Sheen | Odor     | Completed | Longitude  | Latitude |
| SL-    | 178         | NS        | 0.0  | -    | 7   | No    | No       | 2/12/2018 | -124.23872 | 43.43465 |
| SL-    | 179         | NS        | 0.0  | -    | 7   | No    | No       | 2/12/2018 | -124.23869 | 43.43463 |
| SL-    | 180         | GS        | 20.0 | 5.8  | 15  | No    | Moderate | 2/12/2018 | -124.23874 | 43.43464 |
| SL-    | 181         | SS        | 0.4  | -    | 15  | No    | No       | 2/12/2018 | -124.23873 | 43.43458 |
| NL-    | 182         | SS        | 0.3  | 0.7  | 5   | Heavy | Moderate | 2/12/2018 | -124.23870 | 43.43477 |
| NL-    | 183         | SS        | 0.3  | -    | 15  | No    | No       | 2/12/2018 | -124.23865 | 43.43476 |
| SL-    | 186         | GW        | 1.3  | 3.8  | 10  | No    | No       | 2/12/2018 | -124.23838 | 43.43435 |

#### NORTH AND SOUTH "LOWERATORS" AREA EXPLORATION SUMMARY





- GW = Groundwater sample collected only
- GS = Both groundwater and soil samples collected
- SS = Soil sample collected only
- NS = No samples were collected from this boring
- PID = Highest concentration of VOCs detected, in parts per million
- DTW = Depth to groundwater, in ft
- TD = Total depth of boring, in ft
- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

#### Soil Analytical Results

Four soil samples (SL-180-10, SL-180-15, NL-182-5, and NL-183-15) were analyzed from North and South "Lowerators" area. Laboratory results are summarized in Table 12 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in North and South "Lowerators" area contains metals, VOCs, PAHs, diesel, and oil.

**Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in soil sample NL-182-5. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in NL-182-5 at a concentration of 3.97 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in NL-182-5 at a concentration of 8.76 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

**VOCs.** A total of eight VOC compounds were detected in soil. Chemical analytical results indicate VOCs were detected below applicable RBCs.

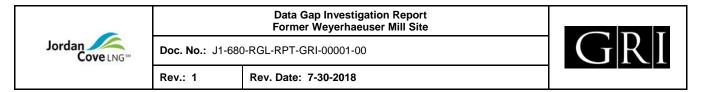
**PAHs.** PAHs were not detected in soil sample NL-183-15. Chemical analytical results indicate a total of thirteen PAH compounds were detected in soil samplesat concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel was detected in soil samples at concentrations below applicable RBCs. Oil was detected in soil sample SL-180-10 at a concentration of 61,500 mg/kg, which exceeds the applicable RBC of 4,600 mg/kg.

#### Groundwater Analytical Results

Two groundwater samples (SL-180-W and SL-186-W) were analyzed from the North and South "Lowerators" area. Laboratory results are summarized in Table 13 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the North and South "Lowerators" area contains metals, PAHs, diesel, and oil.





**Metals.** Chemical analytical results indicate beryllium, cadmium, selenium, silver, and thallium were not detected in groundwater samples. Chemical analytical results indicate other metals were detected in groundwater below applicable RBCs.

**PAHs.** Chemical analytical results indicate naphthalene and 1-methylnaphthalene were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Gasoline was not detected in groundwater. Analytical results indicate diesel and oil was detected in both groundwater samples at concentrations below applicable RBCs.

#### North and South Lowerators Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil sample NL-182-5 exceed the occupational RBCs. Arsenic was detected in sample NL-182-5 at a concentration of 3.97 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in NL-182-5 at a concentration of 8.76 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg, but is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

Chemical analytical results indicate a total of 13 PAH compounds were detected in soil samples at concentrations below applicable RBCs. Oil was detected in soil sample SL-180-10 at a concentration that exceeds applicable RBCs. A moderate petroleum odor was observed from 6 to 10 ft in boring SL-180. Using field observations, samples were selected for analysis to determine the lateral and vertical extent of compounds within soil that potentially exceed applicable RBCs. In the South "Lowerator" area, field observations did not suggest potential RBC exceedances below a depth of 10 ft. Additionally, field observations did not indicate affected soil in boring SL-181; therefore, soil samples were not selected for analysis from boring SL-181. Due to refusal at 7 ft in borings SL-178 and SL-179, potential contamination at depth could not be evaluated northeast of boring SL-180. Based on field observations, it appeared that the vaults containing the in-ground hydraulic lift for the lowerators were filled with concrete during the mill decommissioning activities. In addition, it appeared that the detected analytes that exceed RBCs are contained in the concrete vault and affected soils are likely limited to the interior of the north lowerator vault and the area to the northwest of the south lowerator.

The analytical results indicate detected concentrations of analytes in groundwater do not exceed applicable RBCs for the North and South "Lowerators" area.

#### 8: FORMER MOBILE/PAINT/FUEL SHOPS AREA (SH)

**Background.** The oil, mobile, and paint shops were located adjacent to each other near the west end of the main mill building. These shops were demolished in 1990 and the oil shop service pit was filled with gravel and capped with concrete. Soil samples from four direct-push borings were collected in 2005 and analyzed for diesel and oil. No diesel or oil was detected in soil samples.



| Jordan<br>Cove LNG <sup>®®</sup> | Doc. No.: J1-680 | 0-RGL-RPT-GRI-00001-00 | GRI |
|----------------------------------|------------------|------------------------|-----|
|                                  | Rev.: 1          | Rev. Date: 7-30-2018   |     |

**Data Gap Evaluation.** Previous samples were not analyzed for VOCs or metals, which may have been used or stored at this location as used oils and spent solvents. In addition, three of the samples analyzed were shallow (less than 3 ft).

# Data Gap Investigation Results

Two borings were completed in the Former Mobile/Paint/Fuel Shops area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 8.

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID<br>(ppm) | DTW<br>(ft) | TD<br>(ft) | Sheen  | Odor   | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|--------------|-------------|------------|--------|--------|-------------------|------------|----------|
| SH-            | 176                 | GS                  | 0.6          | 4.3         | 15         | No     | No     | 2/9/2018          | -124.24063 | 43.43433 |
| SH-            | 177                 | SS                  | 0.0          | 1.7         | 15         | Slight | Slight | 2/12/2018         | -124.24055 | 43.43459 |

#### FORMER MOBILE/PAINT/FUEL SHOPS AREA EXPLORATION SUMMARY

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

#### Soil Analytical Results

One soil sample (SH-177-5) was analyzed from the Former Mobile/Paint/Fuel Shops area. Laboratory results are summarized in Table 14 at the end of this report and in the analytical laboratory report included as Appendix B. Analytical results indicate VOCs were not detected in soil sample SH-177-5. Chemical testing indicates that soil in Former Mobile/Paint/Fuel Shops area contains metals, PAHs, diesel, oil, and gasoline.

**Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in soil sample SH-177-5. With the exception of arsenic, chemical analytical results indicate other metals were detected below applicable RBCs. Arsenic was detected in SH-177-5 at a concentration of 4.33 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

**PAHs.** Naphthalene was detected at a concentration of 0.00307 mg/kg, which is below applicable RBCs. 2-methylnapthalene was detected at a concentration of 0.00382 mg/kg; however, no RBCs have been established for this compound.

**Petroleum.** Analytical results indicate diesel, oil, and gasoline were detected in soil samples at concentrations below applicable RBCs.



|                                 |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |
|---------------------------------|------------------|--|-----|
| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680 | )-RGL-RPT-GRI-00001-00   | GRI |
|                                 | Rev.: 1          | Rev. Date: 7-30-2018   |     |

#### **Groundwater Analytical Results**

One groundwater samples (SH-176-W) was analyzed from the Former Mobile/Paint/Fuel Shops area. Laboratory results are summarized in Table 15 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Former Mobile/Paint/Fuel Shops area contains metals, VOCs, PAHs, diesel, and oil.

**Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, thallium, and mercury were not detected in groundwater samples. Chemical analytical results indicate other metals detected in groundwater are below applicable RBCs.

**VOCs.** Chemical analytical results indicate toluene was detected at a concentration of 0.00103 mg/L, which is below the RBC of 220 mg/L.

**PAHs.** Chemical analytical results indicate a total of three PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate gasoline was not detected in the groundwater sample collected from the Former Mobile/Paint/Fuel Shops area. Diesel was detected in the groundwater sample at a concentration of 0.159 mg/L, which is below the applicable RBC. Oil was detected at a concentration of 0.083 mg/L, which is below the applicable RBC.

#### Former Shops Area Investigation Findings

The analytical results indicate arsenic was detected in SH-177-5 at a concentration of 4.33 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

The analytical results indicate detected concentrations of VOC, PAHs, diesel, and oil detected in soil and groundwater do not exceed applicable RBCs.

#### 9: MOBILE SHOP AREA (MO)

**Background.** Following the demolition of the former paint, mobile, and oil shops, new paint, mobile, and oil shop buildings were constructed south of the purchasing building. A shallow soil sample (less than 2 ft) was collected from one direct-push boring in the drum storage area of the mobile shop and analyzed for diesel and oil. No diesel or oil was detected in the soil sample.

**Data Gap Evaluation.** Analysis of soil and groundwater in the vicinity of the oil shop and paint shop has not been completed.



| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680 | 0-RGL-RPT-GRI-00001-00 | GRI |
|---------------------------------|------------------|------------------------|-----|
|                                 | Rev.: 1          | Rev. Date: 7-30-2018   |     |

#### Data Gap Investigation Results

Five borings were completed in the Mobile Shop area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 9.

| Area   | Exploration | Sample    | PID   | DTW  | TD   | cl     |      | Date      |            | 1        |
|--------|-------------|-----------|-------|------|------|--------|------|-----------|------------|----------|
| Prefix | ID #        | collected | (ppm) | (ft) | (ft) | Sheen  | Odor | Completed | Longitude  | Latitude |
| MO-    | 171         | GS        | 0.8   | 3.5  | 15   | No     | No   | 2/8/2018  | -124.24112 | 43.43379 |
| MO-    | 172         | SS        | 0.7   | 3.8  | 15   | No     | No   | 2/8/2018  | -124.24115 | 43.43364 |
| MO-    | 173         | GS        | 0.7   | 3.3  | 15   | Slight | No   | 2/8/2018  | -124.24093 | 43.43361 |
| MO-    | 174         | SS        | 0.3   | -    | 15   | No     | No   | 2/9/2018  | -124.24041 | 43.43330 |
| MO-    | 175         | GS        | 0.8   | 3.1  | 15   | No     | No   | 2/9/2018  | -124.24023 | 43.43370 |

#### MOBILE SHOP AREA EXPLORATION SUMMARY

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

#### Soil Analytical Results

One soil sample (MO-173-14) was analyzed from the Mobile Shop area. Laboratory results are summarized in Table 16 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Mobile Shop area contains metals. Chemical analytical results indicate PAHs, diesel, and oil were not detected in soil sample MO-173-14.

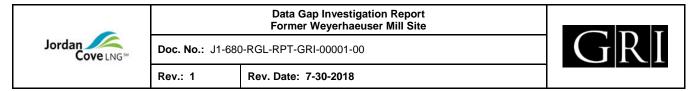
**Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in soil sample MO-173-14. With the exception of arsenic, chemical analytical results indicate other metals were detected below applicable RBCs. Arsenic was detected in MO-173-14 at a concentration of 3.78 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

#### **Groundwater Analytical Results**

Three groundwater samples (MO-171-W, MO-173-W, and MO-175-W) were analyzed from the Mobile Shop area. Laboratory results are summarized in Table 17 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Mobile Shop area contains metals, VOCs, PAHs, diesel, and oil.

**Metals.** Chemical analytical results indicate silver and thallium were not detected in groundwater samples. Chemical analytical results indicate other metals were detected in groundwater are below applicable RBCs.





**PAHs.** Chemical analytical results indicate naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Diesel and oil were detected in groundwater sample MO-175-W, at concentrations of 1.44 and 2.88 mg/kg, respectively, at concentrations below applicable RBCs.

#### Mobile Shop Area Investigation Findings

The analytical results indicate detected concentrations of arsenic in soil sample MO-173-14 exceed the RBCs for the occupational exposure scenario. Arsenic was detected in MO-173-14 at a concentration of 3.78 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the Mobile Shop area.

# 10: SOUTH JORDAN POINT DEBRIS AREA (JP)

**Background.** According to previous report findings, the southern portion of Jordan Point was used as a disposal area for mill-related fill and construction debris. The debris material includes metal plates and scrap, wires, and building material (including asbestos-containing transite siding). Thirteen test pits were completed in the disposal area and four samples of suspected asbestos-containing material analyzed for asbestos. Three of the samples analyzed contained asbestos.

**Data Gap Evaluation.** The use of Jordan Point as a former disposal area for various mill debris (metals, building materials, and fill soil), suggest that TPH and metals may be present in the fill.

#### Data Gap Investigation Results

Four borings were completed in the South Jordan Point Debris area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figures 7 and 9.

| Area   | Exploration | Sample    | PID   | DTW  | TD   |       |      | Date      |            |          |
|--------|-------------|-----------|-------|------|------|-------|------|-----------|------------|----------|
| Prefix | ID #        | collected | (ppm) | (ft) | (ft) | Sheen | Odor | Completed | Longitude  | Latitude |
| JP-    | 188         | GS        | 0.0   | 7.5  | 10   | No    | No   | 2/13/2018 | -124.23925 | 43.43105 |
| JP-    | 189         | SS        | 0.0   | 7.5  | 10   | No    | No   | 2/13/2018 | -124.23908 | 43.43142 |
| JP-    | 190         | SS        | 0.0   | 7.0  | 10   | No    | No   | 2/13/2018 | -124.23854 | 43.43139 |
| JP-    | 191         | GS        | 2.1   | 6.0  | 15   | No    | No   | 2/13/2018 | -124.24007 | 43.43274 |

#### SOUTH JORDAN POINT DEBRIS AREA EXPLORATION SUMMARY

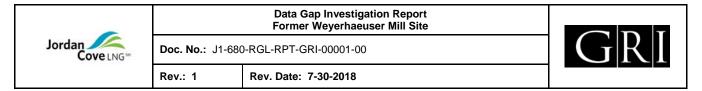
GS = Both groundwater and soil samples collected

SS = Soil sample collected only

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft





TD = Total depth of boring, in ft

#### Soil Analytical Results

Four soil samples (JP-188-6, JP189-7, JP-190-7, and JP-191-8) were analyzed from the South Jordan Point Debris area. Laboratory results are summarized in Table 18 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Jordan Point area contains metals, PAHs, diesel, and oil. PCBs were not detected in soil samples

**Metals.** Chemical analytical results indicate antimony, selenium, silver, and thallium were not detected in South Jordan Point Debris area soil samples. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected soil below applicable RBCs. Arsenic was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations of 2.39, 4.66, and 7.07 mg/kg, respectively, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations of 19.7, 15.6, and 38.3 mg/kg, respectively, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

**PAHs.** PAHs were not detected in soil sample JP-191-8. Chemical analytical results indicate a total of 17 PAH compounds were detected in the remaining soil samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel, oil, and gasoline were not detected in sample JP-191-8. Diesel and oil were detected in sample JP-188-6 at concentrations of 48 and 1,980 mg/kg respectively, which are below applicable RBCs.

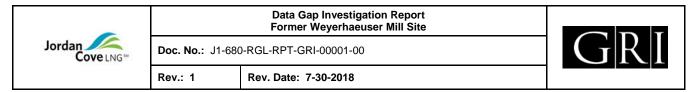
#### **Groundwater Analytical Results**

Two groundwater samples (JP-188-W and JP-191-W) were analyzed from the South Jordan Point Debris area. Laboratory results are summarized in Table 19 at the end of this report and in the analytical laboratory report included as Appendix B. VOCs were not detected in groundwater samples collected from the South Jordan Point Debris area. Chemical testing indicates that groundwater in the South Jordan Point Debris area contains metals, PAHs, diesel, and oil.

**Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, silver, and thallium were not detected in groundwater samples. Chemical analytical results indicate other metals were detected below applicable RBCs.

**PAHs.** Chemical analytical results indicate benzo(g,h,i)perylene, naphthalene, and 2-methylnapthalene were detected in groundwater samples at concentrations below





applicable RBCs. In addition, benzo(g,h,i)perylene and naphthalene were also detected in the laboratory blank and likely represent a laboratory contaminant not actually present in the sample.

**Petroleum.** Gasoline was not detected in groundwater samples. Diesel was detected in groundwater samples JP-188-W and JP-191-W at concentrations of 0.674 and 0.179 mg/L, respectively. Oil was detected in samples JP-188-W and JP-191-W at concentrations of 1.31 and 0.21 mg/L respectively, which is below the applicable RBCs.

# Jordan Point Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil samples JP-188-6, JP189-7, and JP-190-7 exceed the occupational RBCs. Arsenic was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations ranging from 2.39 to 7.07 mg/kg, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples JP-188-6, JP189-7, and JP-190-7 at concentrations ranging from 15.6 to 38.3 mg/kg, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the South Jordan Point Debris area.



| Jordan<br>Cove LNG™ | Doc. No.: J1-680 | )-RGL-RPT-GRI-00001-00 | GRI |
|---------------------|------------------|------------------------|-----|
|                     | Rev.: 1          | Rev. Date: 7-30-2018   |     |

#### 11: BOILER AND POWERHOUSE AREA (BP)

**Background.** Based on information from a former Weyerhaeuser employee, the mill operated two boilers to provide heat to the mill and for drying kilns.

**Data Gap Evaluation.** The fuel used for the boilers consisted of fuel oil and hog fuel. There is potential for fuel oil to be present beneath the former boiler and powerhouse location. There is no TPH, PAHs, metals, and VOCs data from the area of the boilers and powerhouse prior to this investigation.

#### Data Gap Investigation Results

Twenty-five borings were completed in the Boiler and Powerhouse area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 10.

| Area   | Exploration | Sample    | PID   | DTW  | TD   |          |          | Date      |            |          |
|--------|-------------|-----------|-------|------|------|----------|----------|-----------|------------|----------|
| Prefix | ID #        | collected | (ppm) | (ft) | (ft) | Sheen    | Odor     | Completed | Longitude  | Latitude |
| BP-    | 101         | GS        | 0.0   | 1.8  | 35   | Slight   | No       | 1/29/2018 | -124.23968 | 43.43561 |
| BP-    | 102         | GS        | 2.1   | 2.2  | 20   | Heavy    | Slight   | 1/29/2018 | -124.23975 | 43.43563 |
| BP-    | 103         | SS        | 0.0   | 1.9  | 20   | No       | No       | 1/30/2018 | -124.23978 | 43.43572 |
| BP-    | 104         | SS        | 0.0   | 2.4  | 20   | Slight   | No       | 1/30/2018 | -124.23981 | 43.43560 |
| BP-    | 105         | NS        | 0.6   | 2.3  | 20   | Moderate | No       | 1/30/2018 | -124.23966 | 43.43576 |
| BP-    | 106         | SS        | 0.0   | 2.5  | 20   | No       | No       | 1/30/2018 | -124.23950 | 43.43590 |
| BP-    | 107         | SS        | 0.0   | 1.8  | 20   | No       | No       | 1/30/2018 | -124.23949 | 43.43580 |
| BP-    | 108         | SS        | 0.0   | 2.5  | 20   | Slight   | No       | 1/30/2018 | -124.23967 | 43.43588 |
| BP-    | 109         | GW        |       | 2.8  | 10   | No       | No       | 1/30/2018 | -124.23982 | 43.43589 |
| BP-    | 119         | GS        | 75.0  | 3.5  | 45   | Heavy    | Heavy    | 1/31/2018 | -124.23940 | 43.43540 |
| BP-    | 120         | SS        | 2.9   | 3.2  | 20   | Moderate | Moderate | 2/1/2018  | -124.23951 | 43.43556 |
| BP-    | 121         | GS        | 3.3   | 3.8  | 30   | No       | Slight   | 2/1/2018  | -124.23928 | 43.43522 |
| BP-    | 122         | SS        | 2.0   | 3.7  | 15   | No       | Slight   | 2/1/2018  | -124.23928 | 43.43531 |
| BP-    | 123         | SS        | 3.2   | 3.8  | 15   | No       | No       | 2/1/2018  | -124.23968 | 43.43508 |
| BP-    | 124         | NS        | 0.6   | 3.7  | 15   | No       | No       | 2/1/2018  | -124.23944 | 43.43519 |
| BP-    | 125         | SS        | 0.0   | 3.6  | 20   | No       | Slight   | 2/1/2018  | -124.23932 | 43.43534 |
| BP-    | 126         | SS        | 0.3   | 3.3  | 15   | Slight   | No       | 2/1/2018  | -124.23950 | 43.43537 |
| BP-    | 127         | SS        | 0.0   | -    | 15   | Slight   | No       | 2/1/2018  | -124.23929 | 43.43551 |
| BP-    | 128         | SS        | 107.0 | 3.8  | 15   | Moderate | Heavy    | 2/2/2018  | -124.23927 | 43.43542 |
| BP-    | 129         | SS        | 140.0 | 4.0  | 15   | Heavy    | Heavy    | 2/2/2018  | -124.23923 | 43.43543 |
| BP-    | 130         | NS        |       | 2.0  | 5.5  | No       | No       | 2/2/2018  | -124.23918 | 43.43544 |
| BP-    | 187         | GS        | 2.4   | -    | 15   | No       | No       | 2/12/2018 | -124.23909 | 43.43547 |

#### BOILER AND POWERHOUSE AREA EXPLORATION SUMMARY



| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00 | GRI |
|---------------------------------|------------------|------------------------|-----|
|                                 | Rev.: 1          | Rev. Date: 7-30-2018   |     |

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID<br>(ppm) | DTW<br>(ft) | TD<br>(ft) | Sheen    | Odor  | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|--------------|-------------|------------|----------|-------|-------------------|------------|----------|
| BP-            | 200                 | SS                  | 13.0         | -           | 15         | Moderate | Heavy | 2/14/2018         | -124.23949 | 43.43549 |
| BP-            | 201                 | NS                  |              | -           | 5          | No       | No    | 2/14/2018         | -124.23967 | 43.43533 |
| BP-            | 202                 | GS                  | 0.5          | 2.0         | 10         | No       | No    | 2/14/2018         | -124.23965 | 43.43531 |

GW = Groundwater sample collected only

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

NS = No samples were collected from this boring

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

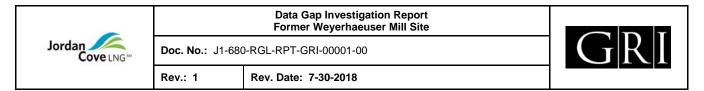
A slight sheen was observed in boring BP-101 between a depth of 7 and 12 ft. A heavy sheen and slight odor were observed in boring BP-102 between a depth of 8 and 17 ft. A slight sheen was observed in boring BP-104 between a depth of 10 and 14 ft. A moderate sheen was observed in boring BP-105 between a depth of 8.5 and 13.5 ft. A slight sheen was observed in boring BP-108 between a depth of 8.7 and 14.5 ft. A heavy odor was observed in boring BP-119 between a depth of 8 and 20 ft; a heavy sheen was observed between 11 and 24 ft; a moderate odor was observed between a depth of 20 and 28 ft; a moderate sheen was observed between 24 and 26 ft; a slight sheen was observed between 26 and 29 ft; a slight sheen and/or staining of the acetate sample sleeves was observed between 29 and 43.5 ft. A moderate sheen and odor was observed in boring BP-120 between a depth of 8 and 9 ft. A slight odor was observed in boring BP-122 at a depth of between 6 and 7 ft. A slight odor was observed in boring BP-125 isolated at a depth of 14 ft. A slight sheen was observed in boring BP-126 at a depth of between 5 and 6 ft. A slight sheen was observed in boring BP-127 isolated at a depth of 9 ft. A moderate sheen and heavy odor were observed in boring BP-128 at a depth of between 7.5 and 14 ft. A heavy odor was observed in boring BP-129 isolated at a depth of 6.5 ft, a slight to moderate sheen was observed between 8 and 10 ft, and a moderate odor and moderate to heavy sheen were observed from 10 to 13.5 ft. A heavy odor and moderate sheen were observed in boring BP-200 between a depth of 6 and 9.5 ft.

#### Soil Analytical Results

Twenty-five soil samples (BP-101-7, BP-101-30, BP-102-12, BP-102-20, BP-103-13, BP-104-13, BP-104-20, BP-106-13, BP-107-12, BP-108-13, BP-108-17, BP-119-8, BP-119-17, BP-119-33, BP-121-9, BP-125-13, BP-126-6, BP-127-8, BP-129-8, BP-129-14, BP-187-11, BP-200-8, BP-200-13, BP-202-4, and BP-202-10) were analyzed from the Boiler and Powerhouse area. Laboratory results are summarized in Table 20 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil in the Boiler and Powerhouse area contains metals, VOCs, PAHs, gasoline, diesel, and oil. Chemical analytical results indicate PCBs were not detected in soil samples

**Metals.** Chemical analytical results indicate antimony, selenium, silver, and thallium were not detected in Boiler and Powerhouse area soil samples.





With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs.

Arsenic was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 3.68 and 4.17 mg/kg, respectively, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018).

Chromium was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 11.6 and 13.8 mg/kg which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

**VOCs.** A total of 13 VOC compounds were detected in soil. With the Chemical analytical results indicate VOCs were detected below applicable RBCs.

**PAHs**. With the exception of 2-chloronapthalene, chemical analytical results indicate 18 PAH compounds were detected in soil samples from the Boiler and Powerhouse area. PAHs were not detected in soil samples BP-101-30, BP-102-20, BP-103-13, BP-104-20, BP-106-13, BP-107-12, BP-108-17, BP-127-8, BP-200-13, and BP-202-10.

With the exception of benzo(a)pyrene and naphthalene, PAHs were detected at concentrations below applicable RBCs. Benzo(a)pyrene was detected in soil sample BP-119-8 at a concentration of 2.27 mg/kg, which exceeds the occupational RBC of 2.1 mg/kg.

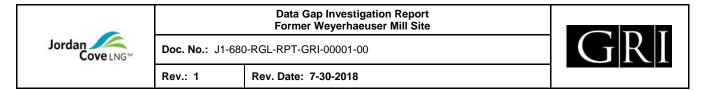
Naphthalene was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 92.0 and 50.4 mg/kg, which exceed the occupational RBCs of 23 mg/kg.

**Petroleum.** Analytical results indicate gasoline was detected in soil samples BP-102-12 and BP-119-8 at concentrations of 0.803 and 161 mg/kg, respectively, which are below applicable RBCs.

Diesel was detected in soil samples BP-102-12, BP-108-13, BP-119-8, BP-129-8, BP-129-14, and BP-200-8. Diesel was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 27,660 and 10,800 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg. Diesel in soil sample BP-119-8 (27,660 mg/kg) exceeds the occupational RBC of 14,000 mg/kg.

Oil was detected in soil samples BP-102-12, BP-108-13, BP-119-8, BP-119-17, BP-129-8, BP-200-8, and BP-202-4 at concentrations ranging from 5.79 to 14,000 mg/kg. Oil was detected in soil samples BP-119-8 and BP-129-8 at





concentrations of 14,000 and 5,100 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg.

## Groundwater Analytical Results

Six groundwater samples (BP-102-W, BP-109-W, BP-119-W, BP-121-W, BP-187-W, and BP-202-W) were analyzed from the Boiler and Powerhouse area. Laboratory results are summarized in Table 21 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Boiler and Powerhouse area contains metals, VOCs, PAHs, gasoline, diesel, and oil.

**Metals.** Chemical analytical results indicate beryllium, cadmium, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate other metals were detected in groundwater below applicable RBCs.

**VOCs.** Chemical analytical results indicate naphthalene and n-propylbenzene were detected in groundwater from BP-119-W at concentrations of 0.0249 and 0.000686 mg/L, respectively. Naphthalene was detected in BP-119-W at a concentration less than the RBC of 0.5 mg/L.

**PAHs.** Chemical analytical results indicate a total of 10 PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Gasoline was detected in BP-119-W at a concentration of 0.0929 mg/L, which is below the RBC of 14 mg/L. Diesel was detected in groundwater samples BP-102-W, BP-119-W, BP-187-W, and BP-202-W at concentrations ranging from 0.0428 and 1.34 mg/L. Oil was detected in samples BP-119-W, BP-187-W, and BP-202-W at concentrations ranging from 0.148 and 1.25 mg/L, which are below the applicable RBCs.

## **Boiler and Powerhouse Area Investigation Findings**

The analytical results indicate detected concentrations of arsenic and chromium in soil samples BP-102-12 and BP-202-4 exceed the applicable RBCs. The concentration of two PAH compounds (benzo(a)pyrene and naphthalene), diesel, and oil in soil from BP-119-8 and BP-129-8 exceed the applicable RBCs.

Arsenic was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 3.68 and 4.17 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 11.6 and 13.8 mg/kg, which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).



|                   |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |
|-------------------|------------------|--|-----|
| Jordan Cove LNG** | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00   | GRI |
|                   | Rev.: 1          | Rev. Date: 7-30-2018   |     |

Analytical results indicate gasoline was detected in soil samples BP-102-12 and BP-119-8 at concentrations of 0.803 and 161 mg/kg, respectively, which are below applicable RBCs. Diesel was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 27,660 and 10,800 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg. Diesel in soil sample BP-119-8 (27,660 mg/kg) exceeds the occupational RBC of 14,000 mg/kg.

With the exception of benzo(a)pyrene and naphthalene, PAHs were detected at concentrations below applicable RBCs. Benzo(a)pyrene was detected in soil sample BP-119-8 at a concentration of 2.27 mg/kg, which exceed the occupational RBCs of 2.1 mg/kg. Naphthalene was detected in soil samples BP-119-8 and BP-129-8 at concentration of 92.0 and 50.4 mg/kg, which exceed the occupational RBCs of 23 mg/kg.

The absence of elevated concentrations of diesel and oil in other soil samples, including borings adjacent to borings BP-119 and BP-129, suggests soil exceeding the construction worker RBCs for diesel and oil is limited to a small area surrounding borings BP-119 and BP-129. The absence of elevated concentrations of diesel and oil in soil samples BP-119-17 and BP-119-33 suggests soil exceeding the applicable RBCs is limited to depths shallower than 17 ft. The volume of soil exceeding the occupational RBC for benzo(a)pyrene naphthalene, diesel, and oil and the construction worker RBC for diesel and oil is estimated to be approximately 6,100 cubic yards.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the Boiler and Powerhouse area.

## 12: DEBARKER AREA (DB)

**Background.** Based on historical aerial photographs, a debarker and saw mill appear to have been in operation west of the purchasing building.

**Data Gap Evaluation.** Drips and/or leaks of hydraulic fluids may have occurred at the debarker. However, there have been no previous investigations in this area.

## Data Gap Investigation Results

Seventeen borings were completed in the Debarker area. Exploration data and observations are summarized in the table below. Boring locations are shown on Figure 7.

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID<br>(ppm) | DTW<br>(ft) | TD<br>(ft) | Sheen  | Odor   | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|--------------|-------------|------------|--------|--------|-------------------|------------|----------|
| DB-            | 155                 | NS                  |              | -           | 7.0        | No     | No     | 2/7/2018          | -124.24136 | 43.43452 |
| DB-            | 156                 | GS                  | 0.4          | 1.6         | 7.5        | Slight | Slight | 2/7/2018          | -124.24107 | 43.43467 |
| DB-            | 157                 | SS                  |              | -           | 5.3        | No     | No     | 2/7/2018          | -124.24127 | 43.43435 |
| DB-            | 158                 | NS                  | 0.2          | -           | 5.1        | No     | No     | 2/7/2018          | -124.24117 | 43.43441 |
| DB-            | 159                 | SS                  | 0.6          | 6.8         | 7.7        | No     | Slight | 2/7/2018          | -124.24132 | 43.43438 |
| DB-            | 160                 | SS                  | 0.4          | 5.2         | 15.0       | No     | No     | 2/7/2018          | -124.24107 | 43.43439 |
| DB-            | 161                 | SS                  | 0.5          | -           | 30         | Slight | No     | 2/7/2018          | -124.24120 | 43.43417 |

#### DEBARKER AREA EXPLORATION SUMMARY



|                      |                                       | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |
|----------------------|---------------------------------------|--|-----|
| Jordan<br>Cove LNG** | Doc. No.: J1-680-RGL-RPT-GRI-00001-00 |  | GRI |
|                      | Rev.: 1                               | Rev. Date: 7-30-2018   |     |

| Area<br>Prefix | Exploration<br>ID # | Sample<br>collected | PID<br>(ppm) | DTW<br>(ft) | TD<br>(ft) | Sheen  | Odor  | Date<br>Completed | Longitude  | Latitude |
|----------------|---------------------|---------------------|--------------|-------------|------------|--------|-------|-------------------|------------|----------|
| DB-            | 162                 | GS                  | 1.8          | 7.3         | 25         | Heavy  | Heavy | 2/7/2018          | -124.24137 | 43.43433 |
| DB-            | 163                 | GS                  | 1.3          | 11.3        | 15         | No     | No    | 2/8/2018          | -124.24139 | 43.43431 |
| DB-            | 164                 | NS                  | 1.2          | -           | 7.5        | No     | No    | 2/8/2018          | -124.24140 | 43.43437 |
| DB-            | 165                 | SS                  | 1.4          | -           | 15         | No     | No    | 2/8/2018          | -124.24146 | 43.43440 |
| DB-            | 166                 | SS                  | 1.2          | -           | 15         | No     | No    | 2/8/2018          | -124.24133 | 43.43430 |
| DB-            | 167                 | SS                  |              | -           | 7.0        | No     | No    | 2/8/2018          | -124.24132 | 43.43443 |
| DB-            | 168                 | SS                  | 0.9          | 5.6         | 15         | No     | No    | 2/8/2018          | -124.24117 | 43.43419 |
| DB-            | 169                 | SS                  | 0.5          | 5.5         | 20         | Slight | No    | 2/8/2018          | -124.24111 | 43.43414 |
| DB-            | 170                 | SS                  | 1.0          | 4.8         | 20         | Slight | No    | 2/8/2018          | -124.24122 | 43.43402 |
| DB-            | 199                 | GS                  | 1.2          | -           | 15         | No     | No    | 2/14/2018         | -124.24255 | 43.43507 |

GS = Both groundwater and soil samples collected

SS = Soil sample collected only

NS = No samples were collected from this boring

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

A slight sheen was observed in borings DB-156, DB-161, DB-169, and DB-170. In boring DB-162, a moderate to heavy sheen was observed from 8 to 11 ft, a moderate to heavy odor was observed from 8 to 10 ft, a slight to moderate odor was observed from 5 to 8 ft, and a slight sheen was observed from 12 to 20 ft. A slight odor was observed in borings DB-156 between 6 and 7 ft and DB-159 between 7 and 8 ft. Several of the explorations in the DB area encountered refusal at similar depths. The obstruction may be a former concrete pad that appears to have been buried and paved over.

#### Soil Analytical Results

Twelve soil samples (DB-159-7, DB-161-13, DB-161-30, DB-162-10, DB-162-21, DB-163-11, DB-165-10, DB-166-11, DB-169-12, DB-169-16, DB-170-13, and DB-199-11) were analyzed from the Debarker area. Laboratory results are summarized in Table 22 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical analytical results indicate VOCs and gasoline were not detected in soil samples. Chemical testing indicates that soil in the Debarker area contains metals, PAHs, diesel, and oil.

**Metals.** Chemical analytical results indicate antimony, cadmium, selenium, silver, and thallium were not detected in Debarker area soil samples. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected in soil samples DB-162-10 and DB-199-11 at concentrations of 3.75 and 3.87 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected



| Jordan<br>Cove LNG** | Doc. No.: J1-680-RGL-RPT-GRI-00001-00 |                      | GRI |
|----------------------|---------------------------------------|----------------------|-----|
|                      | Rev.: 1                               | Rev. Date: 7-30-2018 |     |

in soil sample DB-199-11 at a concentration of 7.46 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

**PAHs.** PAHs were not detected in soil samples DB-170-13 and DB-199-11. Chemical analytical results indicate a total of 17 PAH compounds were detected in soil samples at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate gasoline was not detected in sample DB-199-11. Diesel was detected in samples DB-162-10 and DB-166-11 at concentrations of 1,480 and 1.6 mg/kg respectively, which are below applicable RBCs. Oil was detected in samples DB-163-11, DB-166-11, and DB-169-12 at concentrations ranging from 4.15 to 26 mg/kg, which are below applicable RBCs. Oil detected in DB-162-10 at a concentration of 6,130 mg/kg, which exceeds applicable RBCs.

## **Groundwater Analytical Results**

Three groundwater samples (DB-162-W, DB-163-W, and DB-199-W) were analyzed from the Debarker area. Laboratory results are summarized in Table 23 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that groundwater in the Debarker area contains metals, 1,2,3-trimethylbenzene, PAHs, diesel, and gasoline.

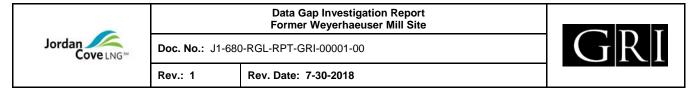
**Metals.** Chemical analytical results indicate antimony, beryllium, cadmium, selenium, and silver were not detected in groundwater samples. Chemical analytical results indicate metals were detected below applicable RBCs.

**VOCs.** VOCs were not detected in groundwater samples DB-163-W and DB-199-W. Chemical analytical results indicate 1,2,3-trimethylbenzene was detected in groundwater sample DB-162-W at concentration of 0.000369 mg/L. No applicable RBC is established for 1,2,3-trimethylbenzene.

**PAHs.** Chemical analytical results indicate a total of 11 PAH compounds were detected in groundwater samples at concentrations below applicable RBCs.

**Petroleum.** Oil was not detected in groundwater samples. Gasoline was not detected in groundwater sample DB-199-W. Diesel was detected in groundwater sample DB-163-W at a concentration of 0.0494 mg/L, which is below the applicable RBC. Gasoline was detected in sample DB-163-W at a concentration of 0.0324 mg/L, which is below the applicable RBC of 14 mg/L. Gasoline was also detected in the laboratory blank.





## Debarker Area Investigation Findings

The analytical results indicate detected concentrations of arsenic and chromium in soil samples DB-162-10 and DB-199-11 exceed the occupational RBCs. Arsenic was detected in soil samples DB-162-10 and DB-199-11 at concentrations of 3.75 and 3.87 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample DB-199-11 at a concentration of 7.46 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

Diesel was detected in samples DB-162-10 and DB-166-11 at concentrations of 1,480 and 1.6 mg/kg respectively, which are below applicable RBCs. Oil detected in DB-162-10 at a concentration of 6,130 mg/kg, which exceeds the construction worker RBC.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs.

## 13: FIRE-SUPPRESSION DIESEL AST AREA (FS)

**Background.** A former diesel aboveground storage tank (AST) cradle was identified by GRI adjacent to the fire suppression building. The field team collected a shallow soil sample below the footprint of the former AST to evaluate for the potential the drips and/or leaks of diesel fuel that may have occurred.

## Data Gap Investigation Results

One shallow soil sample (FSDAST) was collected from the former AST area. Exploration data and observations are summarized below. The exploration location is shown on Figure 10.



| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680-RGL-RPT-GRI-00001-00 |                      | GRI |
|---------------------------------|---------------------------------------|----------------------|-----|
|                                 | Rev.: 1                               | Rev. Date: 7-30-2018 |     |

#### DEBARKER AREA EXPLORATION SUMMARY

| Exploration | Sample    | PID   | DTW  | TD   |       |      | Date      |            |          |
|-------------|-----------|-------|------|------|-------|------|-----------|------------|----------|
| ID #        | collected | (ppm) | (ft) | (ft) | Sheen | Odor | Completed | Longitude  | Latitude |
| FSDAST      | SS        | 0.0   | -    | 1.0  | No    | No   | 2/14/2018 | -124.23930 | 43.43588 |

SS = Soil sample collected only

PID = Highest concentration of VOCs detected, in parts per million

DTW = Depth to groundwater, in ft

TD = Total depth of boring, in ft

- = Depth to groundwater could not be obtained, due to either refusal above the water level or caving

## Soil Analytical Results

One soil sample (FSDAST) was analyzed for metals, PAHs, and Dx. Laboratory results are summarized in Table 24 at the end of this report and in the analytical laboratory report included as Appendix B. Chemical testing indicates that soil metals, PAHs, diesel, and oil.

**Metals.** Chemical analytical results indicate selenium, silver, and thallium were not detected. With the exception of arsenic and chromium, chemical analytical results indicate metals were detected below applicable RBCs. Arsenic was detected at 3.07 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected at 743 mg/kg, which exceeds the applicable RBCs for chromium (VI). However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is greater than the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018).

**PAHs.** Chemical analytical results indicate a total of 16 PAH compounds were detected in soil at concentrations below applicable RBCs.

**Petroleum.** Analytical results indicate diesel and oil were detected at concentrations of 701 and 361 mg/kg, respectively, which are below applicable RBCs.

#### **Fire-Suppression Building Investigation Findings**

The analytical results indicate detected concentrations of arsenic (3.07 mg/kg) and chromium (743 mg/kg) in soil exceed the applicable RBCs.

## FINDINGS AND CONCLUSIONS

Activities conducted during investigation included soil and groundwater sample collection from 104 direct-push explorations and three surface soil samples at the site. The following summarizes the findings of the investigation.

**General.** Subsurface soils and groundwater at the site generally contain low concentrations of metals, PAHs, and petroleum hydrocarbons. The analytical results of soil and groundwater samples collected



| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680 | GL-RPT-GRI-00001-00  |  |
|---------------------------------|------------------|----------------------|--|
|                                 | Rev.: 1          | Rev. Date: 7-30-2018 |  |

during this work address recommendations in the NFA determination issued by the DEQ in 2006 to delineate the vertical and areal extent of low levels of residual TPH by supplementary investigation.

1: Fuel-Oil Release Area (FO). The analytical results indicate the concentration of arsenic and chromium in soil sample FO-118-4 and naphthalene in soil sample FO-111-8 exceed the applicable RBC. Arsenic was detected in sample FO-118-4 at a concentration of 3.12 mg/kg, which exceeds the applicable RBC but is below the natural background concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample FO-118-4 at a concentration of 7.5 mg/kg, which exceeds the applicable RBC but is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic and chromium concentrations represent natural background concentrative of anthropogenic sources.

Naphthalene was detected in soil sample FO-111-8 at a concentration of 46.8 mg/kg from the VOC analysis and 0.372 mg/kg from the PAH analysis. The concentration of naphthalene exceeds the occupational RBCs of 23 mg/kg. Elevated concentrations of naphthalene were not disclosed in borings FO-114 and FO-116, which suggests soil exceeding the occupational RBC for naphthalene is limited to a small area surrounding boring FO-111. A slight petroleum sheen and light odor were observed in boring FO-111 from 8 to 10 ft. Based on field observations and chemical data collected for this assessment, the volume of soil exceeding the applicable RBC for naphthalene is estimated to be approximately 200 cubic yards.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs in the Fuel-Oil Release area.

**2:** Mineral Spirits Release Area (MS). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for soil or groundwater. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

**3:** Truck Scales and Carpenter Shop (TS/CS). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for soil or groundwater. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

**4:** Chip Truck Hydraulic Lift Area (CT). The analytical results indicate the detected concentration of oil (6,190 mg/kg) in soil exceeds the construction worker RBC (4,600 mg/kg). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for groundwater. Based on the results of this investigation, additional characterization does not appear to be necessary at this time.

**5:** Hog Fuel Hydraulic Lift Area (HF). The analytical results indicate the concentration of analytes detected do not exceed applicable RBCs for soil or groundwater. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

6: Stream Channel Area (SC). The analytical results indicate detected concentrations of arsenic and chromium in soil samples SC-205-1 (3.12 mg/kg and 80.3 mg/kg, respectively) and SC-206-1 (4.84 mg/kg



|                                 |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |  |
|---------------------------------|------------------|--|-----|--|
| Jordan<br>Cove LNG <sup>™</sup> | Doc. No.: J1-680 | )-RGL-RPT-GRI-00001-00   | GRI |  |
|                                 | Rev.: 1          | Rev. Date: 7-30-2018   |     |  |

and 7.11 mg/kg, respectively) exceed the occupational RBC (1.9 mg/kg and 6.3 mg/kg, respectively), and chromium in soil sample SC-205-1 also exceeds the construction worker RBC (49 mg/kg). In our opinion, the elevated arsenic concentration likely represents natural background concentration and is not indicative of anthropogenic sources. Based on receiving site stormwater runoff and the shallow depth of sample collection, the elevated chromium concentration in SC-205-1 of 80.3 mg/kg potentially represents an anthropogenic source. However, the concentration of chromium in SC-205-1 is less than the natural background concentration of 240 mg/kg and, in our opinion, additional characterization and remedial mitigation do not appear to be necessary at this time.

**7:** North and South "Lowerators" Area (NL/SL). The analytical results indicate detected concentrations of arsenic and chromium in soil sample NL-182-5 exceed the occupational RBCs. Arsenic was detected in sample NL-182-5 at a concentration of 3.97 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in NL-182-5 at a concentration of 8.76 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg, but is below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic and chromium concentrations represent natural background concentrations and are not indicative of anthropogenic sources.

Chemical analytical results indicate 13 PAH compounds were detected in soil samples at concentrations below applicable RBCs. Oil was detected in soil sample SL-180-10 at a concentration of 61,500 mg/kg that exceeds the applicable occupational and construction worker RBCs of 4,600 and 14,000 mg/kg, respectively. A moderate petroleum odor was observed from 6 to 10 ft in boring SL-180. Using field observations, samples were selected for analysis to determine the lateral and vertical extent of compounds within soil that potentially exceed applicable RBCs. In the South "Lowerator" area, field observations did not suggest potential contamination in boring SL-181; therefore, soil samples were not selected for analysis from boring SL-181. Borings NL-182, SL-178, SL-179 met refusal at about 5 to 7 ft due to encountering concrete. Based on field observations, it appeared that the vaults containing the in-ground hydraulic lift for the lowerators were filled with concrete during the mill decommissioning activities. In addition, it appeared that the detected analytes that exceed RBCs are contained in the concrete vault and affected soils are likely limited to the interior of the north lowerator vault and the area to the northwest of the south lowerator.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs for the North and South "Lowerators" area.

Based on the results of this investigation, additional characterization does not appear to be necessary at this time.

8: Former Mobile/Paint/Fuel Shops Area (SH). The analytical results indicate arsenic was detected in SH-177-5 at a concentration of 4.33 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is



| Jordan<br>Cove LNG** | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00 | GRI |
|----------------------|------------------|------------------------|-----|
|                      | Rev.: 1          | Rev. Date: 7-30-2018   |     |

below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic concentration likely represents a natural background concentration and is not indicative of anthropogenic sources.

The analytical results indicate the concentration of analytes in groundwater do not exceed applicable RBCs. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

**9:** Mobile Shop Area (MO). The analytical results indicate arsenic was detected in MO-173-14 at a concentration of 3.78 mg/kg, which exceeds the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic concentration likely represents a natural background concentration and is not indicative of anthropogenic sources.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs for the Mobile Shop area. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

**10: South Jordan Point Debris Area (JP).** The analytical results indicate detected concentrations of arsenic and chromium in soil samples JP-188-6, JP-189-7, and JP-190-7 exceeding the occupational RBCs. Arsenic was detected in soil samples JP-188-6, JP-189-7, and JP-190-7 at concentrations ranging from 2.39 to 7.07 mg/kg, which exceed the occupational RBC of 1.9 mg/kg, but is below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples JP-189-7, and JP-190-7 at concentrations ranging from 15.6 to 38.3 mg/kg which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg, but are below the natural background chromium concentrations likely represent natural background concentrations and are not indicative of anthropogenic sources.

The analytical results indicate concentration of analytes in groundwater do not exceed applicable RBCs for the South Jordan Point Debris area. Based on the results of this investigation, additional characterization and remedial mitigation (for compounds other than asbestos) do not appear to be necessary at this time.

Previous assessments in the Jordan Point area encountered asbestos containing materials in the Jordan Point area (PES, 2006). Asbestos concentration and distribution were not evaluated during the Data Gap Investigation.

**11: Boiler and Powerhouse Area (BP).** The analytical results indicate detected concentrations of arsenic and chromium in soil samples BP-102-12 and BP-202-4 exceed the applicable RBCs. The concentration of benzo(a)pyrene, naphthalene, and diesel in soil from BP-119-8 and BP-129-8 exceed the applicable RBCs.

Arsenic was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 3.68 and 4.12 mg/kg respectively, which exceed the occupational RBC of 1.9 mg/kg, but are below the natural background



|                                  |                  | Data Gap Investigation Report<br>Former Weyerhaeuser Mill Site |     |  |
|----------------------------------|------------------|--|-----|--|
| Jordan<br>Cove LNG <sup>®®</sup> | Doc. No.: J1-680 | D-RGL-RPT-GRI-00001-00   | GRI |  |
|                                  | Rev.: 1          | Rev. Date: 7-30-2018   |     |  |

arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil samples BP-102-12 and BP-202-4 at concentrations of 11.6 and 13.8 mg/kg which exceed the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentrations are below the natural background chromium concentration for the Coast Range of 240 mg/kg (DEQ, 2018). In our opinion, the elevated arsenic and chromium concentration likely represents a natural background concentration and are not indicative of anthropogenic sources.

Analytical results indicate gasoline was detected in soil samples BP-102-12 and BP-119-8 at concentrations of 0.803 and 161 mg/kg, respectively, which are below applicable RBCs. Diesel was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 27,660 and 10,800 mg/kg, which exceed the construction worker RBC of 4,600 mg/kg. Diesel in soil sample BP-119-8 (27,660 mg/kg) exceeds the occupational RBC of 14,000 mg/kg. Oil was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 14,000 mg/kg.

With the exception of benzo(a)pyrene and naphthalene, PAHs were detected at concentrations below applicable RBCs. Benzo(a)pyrene was detected in soil sample BP-119-8 at a concentration of 2.27 mg/kg, which exceeds the occupational RBCs of 2.1 mg/kg. Naphthalene was detected in soil samples BP-119-8 and BP-129-8 at concentrations of 92.0 and 50.4 mg/kg, which exceed the occupational RBCs of 23 mg/kg.

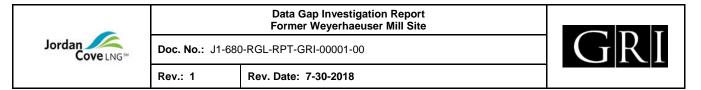
Field observations and chemical analytical data, suggests soil exceeding the occupational RBCs for the two PAH compounds, diesel, and oil, and the construction worker RBCs for diesel and oil is limited to a small area surrounding borings BP-119 and BP-129. Based on field observations and analytical testing, the volume of soil exceeding the occupational RBCs for benzo(a)pyrene naphthalene, diesel, and oil and the construction worker RBCs for diesel and oil is estimated to be approximately 6,100 cubic yards.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs for the Boiler and Powerhouse area.

Based on the results of this investigation, previously unidentified soil and groundwater contamination were encountered in the Boiler and Powerhouse area. Analytical testing indicates that the concentration of PAHs, diesel, and oil exceed applicable RBCs.

**12: Debarker Area (DB).** The analytical results indicate detected concentrations of arsenic and chromium in soil samples DB-162-10 and DB-199-11 exceed the occupational RBCs. Arsenic was detected in soil samples DB-162-10 and DB-199-11 at concentrations of 3.75 and 3.87 mg/kg, respectively, which exceed the occupational RBC of 1.9 mg/kg but are below the natural background arsenic concentration for the Coast Range of 12 mg/kg (DEQ, 2018). Chromium was detected in soil sample DB-199-11 at a concentration of 7.46 mg/kg, which exceeds the occupational RBC for chromium (VI) of 6.3 mg/kg. However, chromium is reported as total chromium concentrations. Additionally, the detected chromium concentration is below the natural background chromium concentration for the Coast Range of 240 mg/kg





(DEQ, 2018). Elevated arsenic and chromium concentration likely represents a natural background concentration and are not indicative of anthropogenic sources.

Diesel was detected in samples DB-162-10 and DB-166-11 at concentrations of 1,480 and 1.6 mg/kg respectively, which are below applicable RBCs. Oil detected in DB-162-10 at a concentration of 6,130 mg/kg, which exceeds the applicable construction worker RBC.

The analytical results indicate detected concentrations of compounds in groundwater do not exceed applicable RBCs. Based on the results of this investigation, additional characterization and remedial mitigation do not appear to be necessary at this time.

**13: Fire-Suppression Diesel AST Area.** The analytical results indicate detected concentrations of arsenic (3.07 mg/kg) and chromium (743 mg/kg) in soil exceed the occupational RBCs of 1.9 mg/kg and 6.3 mg/kg, respectively. In addition, detected concentrations of chromium (743 mg/kg) exceeds the construction worker RBC of 49 mg/kg. In our opinion, the elevated arsenic concentration likely represents a natural background concentration and are not indicative of anthropogenic sources. The elevated chromium concentration may represent an anthropogenic source related to paint used on the fire suppression building.

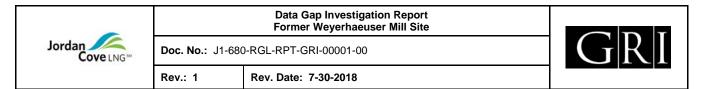
## **Remedial Mitigation**

Current chemical concentrations from soil and groundwater testing compared to generic RBCs indicate subsurface soils in the FO, CT, SC, NL/SL, SH, MO, JP, BP, DB, and fire suppression building areas of the site contain PAHs, metals, and/or petroleum hydrocarbons at concentrations that are greater than the applicable RBCs considered. Figure 11, RBC Exceedance in Soil North Area, and Figure 12, RBC Exceedance in Soil South Area, present the approximate areas where the concentration of residual contamination from historical industrial activities are greater than applicable RBCs. Concentrations detected in groundwater samples are below the applicable RBCs considered.

Detected metal concentrations in soil at the SC, MO, SH, and JP areas that exceed the applicable RBCs are generally less than the regional default natural background concentrations for metals in the Coast Range (DEQ, 2018). Only the Fire-Suppression Diesel AST area sample result for chromium (743 mg/kg) is greater than the regional default natural background concentration (240 mg/kg) for the Coast Range (DEQ, 2018).

The range of PAHs, metals, and/or petroleum hydrocarbons concentrations detected during this investigation are generally within the range of concentrations detected by the previous environmental investigation completed at the site by others (PES, 2006) that were used as the basis for the NFA determination issued by DEQ in 2006. However, where comparative analysis exists, the concentration of PAHs, metals, and/or petroleum hydrocarbons detected during this investigation are typically not detected or at concentrations less than those detected in 2006. The 2006 investigation compared analytical results to a combination of regulatory levels that included DEQ RBCs published in 2003 and EPA Region 9





Preliminary Remediation Goals, dated October 2004. This report compares analytical results to the current RBCs published by DEQ in 2018.

Consistent with the recommendation of the NFA determination, the recent data collected for this investigation should be used to evaluate if subsequent remedial mitigation efforts are necessary to reduce the concentration of contaminants in soil. If land use activities at the site change, we recommend that remedial mitigation efforts be considered to:

- mitigate future potential risk to human health, safety, welfare and the environment by lowering the residual concentrations or eliminating exposure; and,
- satisfy the requirements and recommendations of the NFA determination.

Based on comparison of the analytical results from the Data Gap Investigation to current generic RBCs developed by DEQ (2018) the following areas evaluated in this investigation have concentrations of PAHs, metals, and/or petroleum hydrocarbons that exceed RBCs for soil and we recommend mitigation in these areas if land use activities at the site change:

- Fuel Oil Release Area (FO): Naphthalene (46.8 mg/kg) exceeds the occupational RBC (23 mg/kg)
- Chip Truck Hydraulic Lift Area (CT). Oil (6,190 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
- "Lowerators" Area (NL/SL) Oil (61,500 mg/kg) exceeds occupational and construction worker RBC of 4,600 and 14,000 mg/kg, respectively
- **Boiler and Powerhouse Area** (BP):

-Benzo(a)pyrene (2.27 mg/kg) exceeds occupational RBC (2.1 mg/kg) -Naphthalene (92 mg/kg) exceeds the occupational RBC (23 mg/kg) -Diesel (27,660 mg/kg) exceeds the construction worker RBC (4,600 mg/kg) -Oil (14,000 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)

- Debarker Area (DB): Oil (6,130 mg/kg) exceeds the construction worker RBC (4,600 mg/kg)
- Fire-Suppression Diesel AST Area: Chromium (743 mg/kg) exceeds the construction worker RBC (49 mg/kg) and the default natural background concentration (240 mg/kg) for the Coast Range (DEQ, 2018).

## LIMITATIONS

This report has been prepared to assist in evaluating soil and groundwater conditions at the abovereferenced site. The scope of work was limited to the specific project, location, and activities described herein. In the performance of an assessment of this type, specific information is obtained at specific locations at specific times. This report may be used only by the client and project team within a reasonable time from its issuance. Land-use, on- and off-site conditions, regulatory requirements or other factors may change over time, and additional work may be required with the passage of time.



| Jordan<br>Cove LNG** | Doc. No.: J1-680-RGL-RPT-GRI-00001-00 |                      | GRI |
|----------------------|---------------------------------------|----------------------|-----|
|                      | Rev.: 1                               | Rev. Date: 7-30-2018 |     |

The conclusions and recommendations presented in this report are based on our interpretation of the information obtained through the assessment procedures described in this report. No other warranty or representation, either expressed or implied, is included or intended in this report.

We appreciate the opportunity to be of service to you on this project. Please contact the undersigned if you have any questions regarding this report or require further assistance.

#### **SIGNATURES**

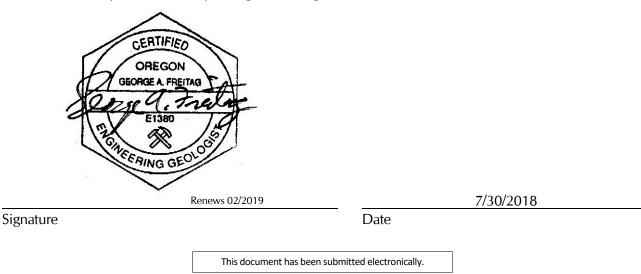
Report prepared by Mike Marshall, RG, CEG

7/30/2018

Signature

Date

Technical and corporate review by George A. Freitag, RG, CEG



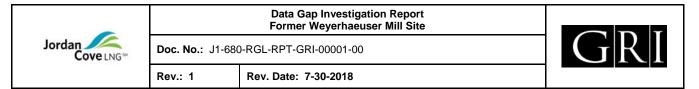
#### References

CH2M Hill, Inc., October 1, 1996, Phase II – Ingram Site Investigation, North Bed, Oregon, prepared for Weyerhaeuser Company.

DEQ, 2018, Background Levels of Metals in Soils for Cleanups, Fact Sheet, Environmental Cleanup Program, January 25, 2018.

DEQ, 2018, Risk-Based Concentrations for Individual Chemicals: Environmental Cleanup Program.





- DEQ, 2018, Risk-Based Decision Making for the Remediation of Contaminated Sites Guidance includes: Table of Generic Risk-Based Concentrations for Petroleum Constituents and Total Petroleum Hydrocarbons and Generic Remedy for Simple Risk Based Sites. Land Quality Division.
- GRI, September 28, 2015, Data Gap Evaluation and Work Plan, South Dunes Site, Oregon Department of Environmental Qulity ECSI #1083, Coos County, Oregon.
- Oregon Department of Environmental Quality (DEQ), 2018, Background Levels of Metals in Soils for Cleanups, Fact Sheet, Environmental Cleanup Program.
- PES Environmental, Inc., April, 2006, Level II Environmental Assessment, Former Weyerhaeuser Containerboard Mill, North Bend, Oregon, prepared for Weyerhaeuser Company.

SEACOR, 1992, Soil and Groundwater Investigation Report: Weyerhaeuser Paper Company, North Bend Mill.



## Table 1: SUMMARY OF FUEL OIL RELEASE AREA SOIL CHEMICAL DATA

|        | Compound                       |           | Fue      | l Oil Release | Area Soil Sam | oncentration<br>ples |          |              | or Soil Ingestion      |         |
|--------|--------------------------------|-----------|----------|---------------|---------------|----------------------|----------|--------------|------------------------|---------|
|        |                                | FO-111-8  | FO-113-8 | FO-114-13     | FO-116-14     | FO-118-4             | FO-203-9 | Occupational | Construction<br>Worker |         |
|        | Antimony                       | NA        | NA       | NA            | NA            | ND                   | NA       | NE           | NE                     | NE      |
|        | Arsenic                        | NA        | NA       | NA            | NA            | 3.12                 | NA       | 1.9          | 15                     | 420     |
|        | Beryllium                      | NA        | NA       | NA            | NA            | 0.106 J              | NA       | 2,300        | 700                    | 19,000  |
|        | Cadmium                        | NA        | NA       | NA            | NA            | ND                   | NA       | 1,100        | 350                    | 9,700   |
|        | Chromium                       | NA        | NA       | NA            | NA            | 7.5                  | NA       | 6.3          | 49                     | 1,400   |
| 2      | Copper                         | NA        | NA       | NA            | NA            | 2.84                 | NA       | 47,000       | 14,000                 | 390,000 |
| Metals | Lead                           | NA        | NA       | NA            | NA            | 6.54                 | NA       | 800          | 800                    | 800     |
| _      | Nickel                         | NA        | NA       | NA            | NA            | 5.3                  | NA       | 22,000       | 7,000                  | 190,000 |
|        | Selenium                       | NA        | NA       | NA            | NA            | ND                   | NA       | NE           | NE                     | NE      |
|        | Silver                         | NA        | NA       | NA            | NA            | ND                   | NA       | 5,800        | 1,800                  | 49,000  |
|        | Thallium                       | NA        | NA       | NA            | NA            | ND                   | NA       | NE           | NE                     | NE      |
|        | Zinc                           | NA        | NA       | NA            | NA            | 28.1                 | NA       | NE           | NE                     | NE      |
|        | Mercury                        | NA        | NA       | NA            | NA            | 0.00807 B J          | NA       | 350          | 110                    | 2,900   |
|        | Acetone                        | ND        | NA       | 0.0186        | 0.0133 J V3   | NA                   | NA       | NE           | NE                     | NE      |
|        | Acrylonitrile                  | ND        | NA       | ND            | ND            | NA                   | NA       | 4            | 40                     | 1,100   |
|        | Benzene                        | ND        | NA       | ND            | ND            | NA                   | NA       | 37           | 380                    | 11,000  |
|        | Bromobenzene                   | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Bromodichloromethane           | ND        | NA       | ND            | ND            | NA                   | NA       | 15           | 230                    | 6,300   |
|        | Bromoform                      | ND        | NA       | ND            | ND            | NA                   | NA       | 260          | 2,700                  | 74,000  |
|        | Bromomethane                   | ND        | NA       | ND            | ND            | NA                   | NA       | 750          | 370                    | 10,000  |
|        | N-butylbenzene                 | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Sec-butylbenzene               | 0.0797    | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Tert-Butylbenzene              | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Carbon tetrachloride           | ND        | NA       | ND            | ND            | NA                   | NA       | 34           | 320                    | 8,900   |
|        | Chlorobenzene                  | ND        | NA       | ND            | ND            | NA                   | NA       | 8,700        | 4,700                  | 130,000 |
|        | Chlorodibromomethane           | ND        | NA       | ND            | ND            | NA                   | NA       | 17           | 210                    | 5,800   |
|        | Chloroethane                   | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Chloroform                     | ND        | NA       | ND            | ND            | NA                   | NA       | 26           | 410                    | 11,000  |
|        | Chloromethane                  | ND        | NA       | ND            | ND            | NA                   | NA       | 25,000       | 25,000                 | 700,00  |
|        | 2-Chlorotoluene                | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 4-Chlorotoluene                | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,2-dibromo-3-chloropropane    | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,2-dibromoethane              | ND        | NA       | ND            | ND            | NA                   | NA       | 0.73         | 9                      | 250     |
|        | Dibromomethane                 | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,2-dichlorobenzene            | ND        | NA       | ND            | ND            | NA                   | NA       | 36,000       | 20,000                 | 560,000 |
|        | 1,3-dichlorobenzene            | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,4-dichlorobenzene            | ND        | NA       | ND            | ND            | NA                   | NA       | 64           | 1,300                  | 36,000  |
|        | Dichlorodifluoromethane        | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,1-dichloroethane             | ND        | NA       | ND            | ND            | NA                   | NA       | 260          | 3,200                  | 89,000  |
|        | 1,2-dichloroethane             | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,1-dichloroethene             | ND        | NA       | ND            | ND            | NA                   | NA       | 29,000       | 13,000                 | 370,00  |
|        | Cis-1,2-dichloroethene         | ND        | NA       | ND            | ND            | NA                   | NA       | 2,300        | 710                    | 20,000  |
|        | Trans-1,2-dichloroethene       | ND        | NA       | ND            | ND            | NA                   | NA       | 23,000       | 7,100                  | 200,00  |
|        | 1,2-dichloropropane            | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
| 3      | 1,1-dichloropropene            | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
| 502    | 1,3-dichloropropane            | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Cis-1,3-dichloropropene        | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Trans-1,3-dichloropropene      | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 2,2-dichloropropane            | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Di-isopropyl ether             | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Ethylbenzene                   | 0.0158 J  | NA       | ND            | ND            | NA                   | NA       | 150          | 1,700                  | 49,000  |
|        | Hexachloro-1,3-butadiene       | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Isopropylbenzene               | 0.0297 J  | NA       | ND            | ND            | NA                   | NA       | 57,000       | 27,000                 | 750,00  |
|        | P-isopropyltoluene             | 0.0133 J  | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 2-butanone (Mek)               | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Methylene chloride             | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 4-methyl-2-pentanone (Mibk)    | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Methyl tert-butyl ether        | ND        | NA       | ND            | ND            | NA                   | NA       | 1,100        | 12,000                 | 320,00  |
|        | Naphthalene                    | 46.8      | NA       | ND            | ND            | NA                   | NA       | 23           | 580                    | 16,000  |
|        | N-propylbenzene                | 0.00794 J | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Styrene                        | ND        | NA       | ND            | ND            | NA                   | NA       | 130,000      | 56,000                 | >Max    |
|        | 1,1,1,2-tetrachloroethane      | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,1,2,2-tetrachloroethane      | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,1,2-trichlorotrifluoroethane | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | Tetrachloroethene              | ND        | NA       | ND            | ND            | NA                   | NA       | 1,000        | 1,800                  | 50,000  |
|        | Toluene                        | ND        | NA       | ND            | 0.00057 J V3  | NA                   | NA       | 88,000       | 28,000                 | 770,00  |
|        | 1,2,3-trichlorobenzene         | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |
|        | 1,2,4-trichlorobenzene         | ND        | NA       | ND            | ND            | NA                   | NA       | NE           | NE                     | NE      |



## Table 1: SUMMARY OF FUEL OIL RELEASE AREA SOIL CHEMICAL DATA

|                         |           |            |             | Co             | oncentration | (mg/kg)  |              |  |                      |
|-------------------------|-----------|------------|-------------|----------------|--------------|----------|--------------|--|----------------------|
| Compound                |           | Fuel       | Oil Release | Area Soil Samp | les          |          | •            | or Soil Ingestion<br>ct, and Inhalatio |                      |
|                         | FO-111-8  | FO-113-8   | FO-114-13   | FO-116-14      | FO-118-4     | FO-203-9 | Occupational | Construction<br>Worker                 | Excavation<br>Worker |
| 1,1,1-trichloroethane   | ND        | NA         | ND          | ND             | NA           | NA       | 870,000      | 470,000                                | >Max                 |
| 1,1,2-trichloroethane   | ND        | NA         | ND          | ND             | NA           | NA       | 26           | 54                                     | 1,500                |
| Trichloroethene         | ND        | NA         | ND          | ND             | NA           | NA       | 51           | 130                                    | 3,700                |
| Trichlorofluoromethane  | ND        | NA         | ND          | ND             | NA           | NA       | 130,000      | 69,000                                 | >Max                 |
| 1,2,3-trichloropropane  | ND        | NA         | ND          | ND             | NA           | NA       | NE           | NE                                     | NE                   |
| 1,2,4-trimethylbenzene  | 0.0546 J  | NA         | ND          | 0.00036 J V3   | NA           | NA       | 6,900        | 2,900                                  | 81,000               |
| 1,2,3-trimethylbenzene  | 0.0263 J  | NA         | ND          | ND             | NA           | NA       | NE           | NE                                     | NE                   |
| 1,3,5-trimethylbenzene  | 0.0261 J  | NA         | ND          | ND             | NA           | NA       | 6,900        | 2,900                                  | 81,000               |
| Vinyl chloride          | ND        | NA         | ND          | ND             | NA           | NA       | 4.4          | 34                                     | 950                  |
| Xylenes, total          | 0.0325 J  | NA         | ND          | ND             | NA           | NA       | 25,000       | 20,000                                 | 560,000              |
| Anthracene              | 0.173     | ND         | ND          | ND             | ND           | ND       | 350,000      | 110,000                                | >Max                 |
| Acenaphthene            | 0.267     | 0.00185 J  | 0.0180      | ND             | ND           | ND       | 70,000       | 21,000                                 | 590,000              |
| Acenaphthylene          | ND        | ND         | ND          | ND             | ND           | ND       | NE           | NE                                     | NE                   |
| Benzo(a)anthracene      | 0.0626    | ND         | ND          | ND             | ND           | ND       | 21           | 170                                    | 4,800                |
| Benzo(a)pyrene          | 0.0234    | ND         | ND          | ND             | ND           | ND       | 2.1          | 17                                     | 490                  |
| Benzo(b)fluoranthene    | 0.0275    | ND         | ND          | ND             | ND           | ND       | 21           | 170                                    | 4,900                |
| Benzo(g,h,i)perylene    | 0.00965 J | ND         | ND          | ND             | ND           | ND       | NE           | NE                                     | NE                   |
| Benzo(k)fluoranthene    | 0.0071 J  | ND         | ND          | ND             | ND           | ND       | 210          | 1,700                                  | 49,000               |
| Chrysene                | 0.0914    | ND         | ND          | ND             | ND           | ND       | 2,100        | 17,000                                 | 490,000              |
| Dibenz(a,h)anthracene   | 0.00453 J | ND         | ND          | ND             | ND           | ND       | 2.1          | 17                                     | 490                  |
| Fluoranthene            | 0.222     | ND         | ND          | ND             | ND           | ND       | 30,000       | 10,000                                 | 280,000              |
| Fluorene                | 0.188     | 0.00104 J  | 0.00122 J   | ND             | ND           | ND       | 47,000       | 14,000                                 | 390,000              |
| Indeno(1,2,3-cd)pyrene  | 0.00405 J | ND         | ND          | ND             | ND           | ND       | 21           | 170                                    | 4,900                |
| Naphthalene             | 0.372     | ND         | 0.0107 J    | ND             | ND           | ND       | 23           | 580                                    | 16,000               |
| Phenanthrene            | 0.455     | ND         | 0.000870 J  | ND             | ND           | ND       | NE           | NE                                     | NE                   |
| Pyrene                  | 0.287     | 0.000835 J | ND          | ND             | ND           | ND       | 23,000       | 7,500                                  | 210,000              |
| 1-methylnaphthalene     | 0.0774    | ND         | ND          | ND             | ND           | ND       | NE           | NE                                     | NE                   |
| 2-methylnaphthalene     | 0.121     | ND         | ND          | ND             | ND           | ND       | NE           | NE                                     | NE                   |
| 2-chloronaphthalene     | ND        | ND         | ND          | ND             | ND           | ND       | NE           | NE                                     | NE                   |
| Total PCBs              | NA        | NA         | NA          | NA             | NA           | NA       | 0.59         | 4.9                                    | 140                  |
| Diesel-Range Organics   | 375 J3    | NA         | NA          | NA             | 3.45 J       | NA       | 14,000       | 4,600                                  | >Max                 |
| Residual-Range Organics | 477 J3    | NA         | NA          | NA             | ND           | NA       | 14,000       | 4,600                                  | >Max                 |
| Gasoline-Range Organics | 1.66      | NA         | NA          | NA             | NA           | NA       | 20,000       | 9,700                                  | >Max                 |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



#### Table 2: SUMMARY OF FUEL OIL RELEASE AREA GROUNDWATER CHEMICAL DATA

|          | Compound                       | Fuel Oil Releas | e Area Groundwat | entration (mg/l<br>er Samples | DEQ RBCs for Groundwate<br>in Excavation |  |  |
|----------|--------------------------------|-----------------|------------------|-------------------------------|--|--|--|
|          |                                | FO-110-W        | FO-111-W         | FO-118-W                      | Construction & Excavation<br>Worker      |  |  |
|          | Antimony                       | ND              | ND               | NA                            | NE                                       |  |  |
|          | Arsenic                        | 0.0124          | 0.00188 J        | NA                            | 6.3                                      |  |  |
|          | Beryllium                      | 0.00135 J       | ND               | NA                            | 270                                      |  |  |
|          | Cadmium                        | 0.00108 J       | ND               | NA                            | 130                                      |  |  |
|          | Chromium                       | 0.119           | ND               | NA                            | 9.4                                      |  |  |
| <b>x</b> | Copper                         | 0.0925          | ND               | NA                            | 5,400                                    |  |  |
| Melais   | Lead                           | 0.0193          | 0.000827 J       | NA                            | > S                                      |  |  |
| Σ        | Nickel                         | 0.0823          | ND               | NA                            | > S                                      |  |  |
|          | Selenium                       | ND              | ND               | NA                            | NE                                       |  |  |
|          | Silver                         | ND              | ND               | NA                            | 1,100                                    |  |  |
|          | Thallium                       | 0.000342 B J    | ND               | NA                            | NE                                       |  |  |
|          | Zinc                           | 1.05            | ND               | NA                            | NE                                       |  |  |
|          | Mercury                        | 0.0000553 J J3  | 0.0000492 J J3   | NA                            | >\$                                      |  |  |
|          | Acetone                        | ND              | ND               | ND                            | NE                                       |  |  |
|          | Acrolein                       | ND J4           | ND J4            | ND J4                         | NE                                       |  |  |
|          | Acrylonitrile                  | ND              | ND               | ND                            | 0.25                                     |  |  |
|          | Benzene                        | ND              | ND               | ND                            | 1.8                                      |  |  |
|          | Bromobenzene                   | ND              | ND               | ND                            | NE                                       |  |  |
|          | Bromodichloromethane           | ND              | ND               | ND                            | 0.45                                     |  |  |
|          | Bromoform                      | ND              | ND               | ND                            | 14                                       |  |  |
|          | Bromomethane                   | ND              | ND J3            | ND                            | 1.2                                      |  |  |
|          | N-butylbenzene                 | ND              | ND               | ND                            | NE                                       |  |  |
|          | Sec-butylbenzene               | ND              | ND               | ND                            | NE                                       |  |  |
|          | Tert-Butylbenzene              | ND              | ND               | ND                            | NE                                       |  |  |
|          | Carbon tetrachloride           | ND              | ND               | ND                            | 1.8                                      |  |  |
|          | Chlorobenzene                  | ND              | ND               | ND                            | 10                                       |  |  |
|          | Chlorodibromomethane           | ND              | ND               | ND                            | 0.61                                     |  |  |
|          | Chloroethane                   | ND              | ND J3            | ND                            | 2,400                                    |  |  |
|          | Chloroform                     | ND              | ND               | ND                            | 0.72                                     |  |  |
|          | Chloromethane                  | ND              | ND J3 J4         | ND                            | 22                                       |  |  |
|          | 2-Chlorotoluene                | ND              | ND               | ND                            | NE                                       |  |  |
|          | 4-Chlorotoluene                | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,2-dibromo-3-chloropropane    | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,2-dibromoethane              | ND              | ND               | ND                            | NE                                       |  |  |
|          | Dibromomethane                 | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,2-dichlorobenzene            | ND              | ND               | ND                            | 37                                       |  |  |
|          | 1,3-dichlorobenzene            | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,4-dichlorobenzene            | ND              | ND               | ND                            | 1.5                                      |  |  |
|          | Dichlorodifluoromethane        | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,1-dichloroethane             | ND              | ND               | ND                            | 10                                       |  |  |
|          | 1,2-dichloroethane             | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,1-dichloroethene             | ND              | ND J3            | ND                            | 44                                       |  |  |
|          | Cis-1,2-dichloroethene         | ND              | ND               | ND                            | 18                                       |  |  |
|          | Trans-1,2-dichloroethene       | ND              | ND               | ND                            | 180                                      |  |  |
|          | 1,2-dichloropropane            | ND              | ND               | ND                            | NE                                       |  |  |
| NOCS     | 1,1-dichloropropene            | ND              | ND               | ND                            | NE                                       |  |  |
| >        | 1,3-dichloropropane            | ND              | ND               | ND                            | NE                                       |  |  |
|          | Cis-1,3-dichloropropene        | ND              | ND               | ND                            | NE                                       |  |  |
|          | Trans-1,3-dichloropropene      | ND              | ND               | ND                            | NE                                       |  |  |
|          | 2,2-dichloropropane            | ND              | ND J3            | ND                            | NE                                       |  |  |
|          | Di-isopropyl ether             | ND              | ND               | ND                            | NE                                       |  |  |
|          | Ethylbenzene                   | ND              | ND               | ND                            | 4.5                                      |  |  |
|          | Hexachloro-1,3-butadiene       | ND              | ND               | ND                            | NE                                       |  |  |
|          | Isopropylbenzene               | ND              | ND               | ND                            | 51                                       |  |  |
|          | P-isopropyltoluene             | ND              | ND               | ND                            | NE                                       |  |  |
|          | 2-butanone (Mek)               | ND              | ND               | ND                            | NE                                       |  |  |
|          | Methylene chloride             | ND              | ND               | ND                            | NE                                       |  |  |
|          | 4-methyl-2-pentanone (Mibk)    | ND              | ND               | ND                            | NE                                       |  |  |
|          | Methyl tert-butyl ether        | ND              | ND               | ND                            | 63                                       |  |  |
|          | Naphthalene                    | ND              | ND               | ND                            | 0.5                                      |  |  |
|          | N-propylbenzene                | ND              | ND               | ND                            | NE                                       |  |  |
|          | Styrene                        | ND              | ND               | ND                            | 170                                      |  |  |
|          | 1,1,1,2-tetrachloroethane      | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,1,2,2-tetrachloroethane      | ND              | ND               | ND                            | NE                                       |  |  |
|          | 1,1,2-trichlorotrifluoroethane | ND              | ND J3            | ND                            | >\$                                      |  |  |
|          | Tetrachloroethene              | ND              | ND               | ND                            | 6  |  |  |
|          | Toluene                        | ND              | ND               | ND                            | 220                                      |  |  |



#### Table 2: SUMMARY OF FUEL OIL RELEASE AREA GROUNDWATER CHEMICAL DATA

|      |                         |                 | Conce            | entration (mg/l) | )   |
|------|-------------------------|-----------------|------------------|------------------|---|
|      | Compound                | Fuel Oil Releas | e Area Groundwat | ter Samples      | DEQ RBCs for Groundwater<br>in Excavation |
|      |                         | FO-110-W        | FO-111-W         | FO-118-W         | Construction & Excavation<br>Worker       |
|      | 1,2,4-trichlorobenzene  | ND              | ND               | ND               | NE  |
|      | 1,1,1-trichloroethane   | ND              | ND               | ND               | 1,100                                     |
|      | 1,1,2-trichloroethane   | ND              | ND               | ND               | 0.049                                     |
|      | Trichloroethene         | ND              | ND               | ND               | 0.43                                      |
|      | Trichlorofluoromethane  | ND              | ND               | ND               | 160                                       |
|      | 1,2,3-trichloropropane  | ND              | ND               | ND               | NE  |
|      | 1,2,4-trimethylbenzene  | ND              | ND               | ND               | 6   |
|      | 1,2,3-trimethylbenzene  | ND              | ND               | ND               | NE  |
|      | 1,3,5-trimethylbenzene  | ND              | ND               | ND               | 8   |
|      | Vinyl chloride          | ND              | ND J3 J4         | ND               | 0.96                                      |
|      | Xylenes, total          | ND              | ND               | ND               | 23  |
|      | Anthracene              | ND T8           | ND               | ND               | >\$                                       |
|      | Acenaphthene            | ND T8           | ND               | ND               | >\$                                       |
|      | Acenaphthylene          | ND T8           | ND               | ND               | NE  |
|      | Benzo(a)anthracene      | ND T8           | ND               | ND               | >\$                                       |
|      | Benzo(a)pyrene          | ND T8           | ND               | ND               | >\$                                       |
|      | Benzo(b)fluoranthene    | 0.0000255 J T8  | 0.00000721 B J   | ND               | >\$                                       |
|      | Benzo(g,h,i)perylene    | 0.0000986 J T8  | 0.00000248 B J   | ND               | NE  |
|      | Benzo(k)fluoranthene    | ND T8           | ND               | ND               | >\$                                       |
|      | Chrysene                | 0.0000355 J T8  | ND               | ND               | >\$                                       |
| PAHS | Dibenz(a,h)anthracene   | ND T8           | ND               | ND               | >S  |
| 2    | Fluoranthene            | ND T8           | ND               | ND               | >\$                                       |
|      | Fluorene                | ND T8           | ND               | ND               | >\$                                       |
|      | Indeno(1,2,3-cd)pyrene  | ND T8           | ND               | ND               | >\$                                       |
|      | Naphthalene             | ND T8           | 0.0000242 B J    | 0.0000599 J      | 0.5                                       |
|      | Phenanthrene            | ND T8           | ND               | ND               | NE  |
|      | Pyrene                  | 0.0000512 J T8  | ND               | ND               | >\$                                       |
|      | 1-methylnaphthalene     | ND T8           | ND               | ND               | NE  |
|      | 2-methylnaphthalene     | ND T8           | ND               | ND               | NE  |
|      | 2-chloronaphthalene     | ND T8           | ND               | ND               | NE  |
|      | Diesel-Range Organics   | NA              | 0.0416 J         | NA               | >\$                                       |
|      | Residual-Range Organics | NA              | ND               | NA               | >\$                                       |
|      | Gasoline-Range Organics | NA              | ND               | NA               | 14  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the RBC for groundwater in excavation for the construction and excavation worker



### Table 3: SUMMARY OF MINERAL SPIRITS AREA SOIL CHEMICAL DATA

|        | Compound                                  |           | Mineral Sp | oirits Area S | oil Samples |          | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |                        |                           |  |  |
|--------|---|-----------|------------|---------------|-------------|----------|--|------------------------|---------------------------|--|--|
|        | Compound                                  | MS-131-9  | MS-131-21  | MS-132-9      | MS-133-9    | MS-185-4 | Conta<br>Occupational  | Construction<br>Worker | on<br>Excavatio<br>Worker |  |  |
|        | Antimony                                  | NA        | NA         | NA            | NA          | NA       | NE   | NE                     | NE                        |  |  |
|        | Arsenic                                   | NA        | NA         | NA            | NA          | NA       | 1.9  | 15                     | 420                       |  |  |
|        | Beryllium                                 | NA        | NA         | NA            | NA          | NA       | 2,300  | 700                    | 19,000                    |  |  |
|        | Cadmium                                   | NA        | NA         | NA            | NA          | NA       | 1,100  | 350                    | 9,700                     |  |  |
|        | Chromium                                  | NA        | NA         | NA            | NA          | NA       | 6.3  | 49                     | 1400                      |  |  |
| s      | Copper                                    | NA        | NA         | NA            | NA          | NA       | 47,000   | 14,000                 | 390,000                   |  |  |
| Metals | Lead                                      | NA        | NA         | NA            | NA          | NA       | 800  | 800                    | 800                       |  |  |
| 2      | Nickel                                    | NA        | NA         | NA            | NA          | NA       | 22,000   | 7,000                  | 190,000                   |  |  |
|        | Selenium                                  | NA        | NA         | NA            | NA          | NA       | NE   | NE                     | NE                        |  |  |
|        | Silver                                    | NA        | NA         | NA            | NA          | NA       | 5,800  | 1,800                  | 49,000                    |  |  |
|        | Thallium                                  | NA        | NA         | NA            | NA          | NA       | NE   | NE                     | NE                        |  |  |
|        | Zinc                                      | NA        | NA         | NA            | NA          | NA       | NE   | NE                     | NE                        |  |  |
|        | Mercury                                   | NA        | NA         | NA            | NA          | NA       | 350  | 110                    | 2,900                     |  |  |
|        | Acetone                                   | ND        | ND         | 0.0168 J      | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Acrylonitrile                             | ND        | ND         | ND            | ND          | NA       | 4  | 40                     | 1,100                     |  |  |
|        | Benzene                                   | ND        | ND         | ND            | ND          | NA       | 37   | 380                    | 11,000                    |  |  |
|        | Bromobenzene                              | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Bromodichloromethane                      | ND        | ND         | ND            | ND          | NA       | 15   | 230                    | 6,300                     |  |  |
|        | Bromoform                                 | ND        | ND         | ND            | ND          | NA       | 260  | 2,700                  | 74,000                    |  |  |
|        | Bromomethane<br>N-butylbenzene            | ND        | ND         | ND            | ND          | NA       | 750  | 370<br>NE              | 10,000<br>NE              |  |  |
|        | ,   | 0.0704    | ND         | ND            | ND          | NA       | NE   |                        |                           |  |  |
|        | Sec-butylbenzene                          | 0.0442    | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Tert-Butylbenzene<br>Carbon tetrachloride | ND        | ND         | ND            | ND          | NA       | NE<br>34   | NE                     | NE<br>8.000               |  |  |
|        | Chlorobenzene                             | ND<br>ND  | ND<br>ND   | ND<br>ND      | ND<br>ND    | NA<br>NA | 34<br>8,700  | 320                    | 8,900                     |  |  |
|        | Chlorodibromomethane                      | ND        | ND         | ND            | ND          | NA       | 17   | 4,700<br>210           | 130,000<br>5,800          |  |  |
|        | Chloroethane                              | ND        | ND         | ND            | ND          | NA       | NE   | 210<br>NE              | 5,800<br>NE               |  |  |
|        | Chloroform                                | ND        | ND         | ND            | ND          | NA       | 26   | 410                    | 11,000                    |  |  |
|        | Chloromethane                             | ND        | ND         | ND            | ND          | NA       | 25,000   | 25,000                 | 700,000                   |  |  |
|        | 2-Chlorotoluene                           | ND        | ND         | ND            | ND          | NA       | 23,000<br>NE   | 23,000<br>NE           | 700,000<br>NE             |  |  |
|        | 4-Chlorotoluene                           | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,2-dibromo-3-chloropropane               | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,2-dibromoethane                         | ND        | ND         | ND            | ND          | NA       | 0.73   | 9                      | 250                       |  |  |
|        | Dibromomethane                            | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,2-dichlorobenzene                       | ND        | ND         | ND            | ND          | NA       | 36,000   | 20,000                 | 560,000                   |  |  |
|        | 1,3-dichlorobenzene                       | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,4-dichlorobenzene                       | ND        | ND         | ND            | ND          | NA       | 64   | 1,300                  | 36,000                    |  |  |
|        | Dichlorodifluoromethane                   | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,1-dichloroethane                        | ND        | NA         | ND            | ND          | NA       | 260  | 3,200                  | 89,000                    |  |  |
|        | 1,2-dichloroethane                        | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,1-dichloroethene                        | ND        | ND         | ND            | ND          | NA       | 29,000   | 13,000                 | 370,000                   |  |  |
|        | Cis-1,2-dichloroethene                    | ND        | ND         | 0.0052 J      | ND          | NA       | 2,300  | 710                    | 20,000                    |  |  |
|        | Trans-1,2-dichloroethene                  | ND        | ND         | ND            | ND          | NA       | 23,000   | 7,100                  | 200,000                   |  |  |
|        | 1,2-dichloropropane                       | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
| 0      | 1,1-dichloropropene                       | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
| 5      | 1,3-dichloropropane                       | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
| >      | Cis-1,3-dichloropropene                   | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Trans-1,3-dichloropropene                 | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 2,2-dichloropropane                       | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Di-isopropyl ether                        | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Ethylbenzene                              | ND        | ND         | ND            | ND          | NA       | 150  | 1,700                  | 49,000                    |  |  |
|        | Hexachloro-1,3-butadiene                  | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Isopropylbenzene                          | 0.00767 J | ND         | ND            | ND          | NA       | 57,000   | 27,000                 | 750,000                   |  |  |
|        | P-isopropyltoluene                        | 0.0308    | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 2-butanone (Mek)                          | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Methylene chloride                        | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 4-methyl-2-pentanone (Mibk)               | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Methyl tert-butyl ether                   | ND        | ND         | ND            | ND          | NA       | 1,100  | 12,000                 | 320,000                   |  |  |
|        | Naphthalene                               | 0.0935 J  | ND         | ND            | ND          | NA       | 23   | 580                    | 16,000                    |  |  |
|        | N-propylbenzene                           | 0.0264 J  | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Styrene                                   | ND        | ND         | ND            | ND          | NA       | 130,000  | 56,000                 | >Max                      |  |  |
|        | 1,1,1,2-tetrachloroethane                 | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,1,2,2-tetrachloroethane                 | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | 1,1,2-trichlorotrifluoroethane            | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |
|        | Tetrachloroethene                         | ND        | ND         | ND            | ND          | NA       | 1,000  | 1,800                  | 50,000                    |  |  |
|        | Toluene                                   | ND        | ND         | ND            | ND          | NA       | 88,000   | 28,000                 | 770,000                   |  |  |
|        | 1,2,3-trichlorobenzene                    | ND        | ND         | ND            | ND          | NA       | NE   | NE                     | NE                        |  |  |



### Table 3: SUMMARY OF MINERAL SPIRITS AREA SOIL CHEMICAL DATA

|      |                         |           |            |               | Conce       | entration (mg | g/kg)        |  |                      |
|------|-------------------------|-----------|------------|---------------|-------------|---------------|--------------|--|----------------------|
|      | Compound                |           | Mineral Sp | oirits Area S | oil Samples |               |              | or Soil Ingestion<br>ct, and Inhalatic |                      |
|      | ·                       | MS-131-9  | MS-131-21  | MS-132-9      | MS-133-9    | MS-185-4      | Occupational | Construction<br>Worker                 | Excavation<br>Worker |
|      | 1,1,1-trichloroethane   | ND        | ND         | ND            | ND          | NA            | 870,000      | 470,000                                | >Max                 |
|      | 1,1,2-trichloroethane   | ND        | ND         | ND            | ND          | NA            | 26           | 54                                     | 1,500                |
|      | Trichloroethene         | ND        | ND         | ND            | ND          | NA            | 51           | 130                                    | 3,700                |
|      | Trichlorofluoromethane  | ND        | ND         | ND            | ND          | NA            | 130,000      | 69,000                                 | >Max                 |
|      | 1,2,3-trichloropropane  | ND        | ND         | ND            | ND          | NA            | NE           | NE                                     | NE                   |
|      | 1,2,4-trimethylbenzene  | ND        | ND         | ND            | 0.00101 J   | NA            | 6,900        | 6,900                                  | 81,000               |
|      | 1,2,3-trimethylbenzene  | ND        | ND         | ND            | 0.00045 J   | NA            | NE           | NE                                     | NE                   |
|      | 1,3,5-trimethylbenzene  | ND        | ND         | ND            | ND          | NA            | 6,900        | 6,900                                  | 81,000               |
|      | Vinyl chloride          | ND        | ND         | ND            | ND          | NA            | 4.4          | 34                                     | 950                  |
|      | Xylenes, total          | ND        | ND         | ND            | ND          | NA            | 25,000       | 20,000                                 | 560,000              |
|      | Anthracene              | 0.00333 J | ND         | ND            | ND          | 0.0148        | 350,000      | 110,000                                | >Max                 |
|      | Acenaphthene            | ND        | 0.0012 J   | ND            | ND          | ND            | 70,000       | 21,000                                 | 590,000              |
|      | Acenaphthylene          | ND        | ND         | ND            | ND          | ND            | NE           | NE                                     | NE                   |
|      | Benzo(a)anthracene      | 0.0022 J  | ND         | ND            | ND          | ND            | 21           | 170                                    | 4,800                |
|      | Benzo(a)pyrene          | 0.00265 J | ND         | ND            | ND          | ND            | 2.1          | 17                                     | 490                  |
|      | Benzo(b)fluoranthene    | 0.00275 J | ND         | ND            | ND          | ND            | 21           | 170                                    | 4,900                |
|      | Benzo(g,h,i)perylene    | 0.00566 J | ND         | ND            | ND          | ND            | NE           | NE                                     | NE                   |
|      | Benzo(k)fluoranthene    | 0.00086 J | ND         | ND            | ND          | ND            | 210          | 1,700                                  | 49,000               |
|      | Chrysene                | 0.00204 J | ND         | ND            | ND          | ND            | 2,100        | 17,000                                 | 490,000              |
| PAHs | Dibenz(a,h)anthracene   | ND        | ND         | ND            | ND          | ND            | 2.1          | 17                                     | 490                  |
| С.   | Fluoranthene            | 0.00857   | ND         | ND            | ND          | 0.00701       | 30,000       | 10,000                                 | 280,000              |
|      | Fluorene                | 0.0415    | ND         | ND            | ND          | 0.0562        | 47,000       | 14,000                                 | 390,000              |
|      | Indeno(1,2,3-cd)pyrene  | 0.00416 J | ND         | ND            | ND          | ND            | 21           | 170                                    | 4,900                |
|      | Naphthalene             | 0.319     | ND         | ND            | ND          | ND            | 23           | 580                                    | 16,000               |
|      | Phenanthrene            | 0.0235    | ND         | ND            | ND          | 0.0702        | NE           | NE                                     | NE                   |
|      | Pyrene                  | 0.0103    | ND         | ND            | ND          | 0.00719       | 23,000       | 7,500                                  | 210,000              |
|      | 1-methylnaphthalene     | 0.492     | ND         | ND            | ND          | ND            | NE           | NE                                     | NE                   |
|      | 2-methylnaphthalene     | 0.459     | ND         | ND            | ND          | ND            | NE           | NE                                     | NE                   |
|      | 2-chloronaphthalene     | ND        | ND         | ND            | ND          | ND            | NE           | NE                                     | NE                   |
|      | Total PCBs              | NA        | NA         | NA            | NA          | NA            | 0.59         | 4.9                                    | 140                  |
|      | Diesel-Range Organics   | 1,150     | ND         | NA            | NA          | ND            | 14,000       | 4,600                                  | >Max                 |
|      | Residual-Range Organics | 69.6      | ND         | NA            | NA          | 4.59          | 14,000       | 4,600                                  | >Max                 |
|      | Gasoline-Range Organics | NA        | NA         | NA            | NA          | NA            | 20,000       | 9,700                                  | >Max                 |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

- J: The identification of the analyte is acceptable; the reported value is an estimate.
- J3: The associated batch QC was outside the established quality control range for precision.
- V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



#### Table 4: SUMMARY OF MINERAL SPIRITS GROUNDWATER CHEMICAL DATA

|        |  |                     | )               |          |   |  |  |
|--------|--|---------------------|-----------------|----------|---|--|--|
|        | Compound                                       | Mineral Spir        | its Groundwater | Samples  | DEQ RBCs for Groundwater<br>in Excavation |  |  |
|        |  | MS-131-W            | MS-134-W        | MS-136-W | Construction & Excavation<br>Worker       |  |  |
|        | Antimony                                       | 0.000804 J          | NA              | NA       | NE  |  |  |
|        | Arsenic  | 0.0164              | NA              | NA       | 6.3                                       |  |  |
|        | Beryllium                                      | ND                  | NA              | NA       | 270                                       |  |  |
|        | Cadmium  | ND                  | NA              | NA       | 130                                       |  |  |
|        | Chromium                                       | 0.00933 J           | NA              | NA       | 9.4                                       |  |  |
| als    | Copper<br>Lead                                 | 0.0104<br>0.00218 B | NA<br>NA        | NA<br>NA | 5,400<br>>S                               |  |  |
| Metals | Nickel   | 0.00218 B           | NA              | NA       | >\$                                       |  |  |
|        | Selenium                                       | 0.00303 J           | NA              | NA       | NE  |  |  |
|        | Silver   | ND                  | NA              | NA       | 1,100                                     |  |  |
|        | Thallium                                       | 0.00218             | NA              | NA       | NE  |  |  |
|        | Zinc   | 0.0422 J            | NA              | NA       | NE  |  |  |
|        | Mercury  | 0.0000823 B J       | NA              | NA       | >\$                                       |  |  |
|        | Acetone  | ND J3               | ND J3           | NA       | NE  |  |  |
|        | Acrolein                                       | ND                  | ND              | NA       | NE  |  |  |
|        | Acrylonitrile                                  | ND                  | ND              | NA       | 0.25                                      |  |  |
|        | Benzene  | ND                  | ND              | NA       | 1.8                                       |  |  |
|        | Bromobenzene                                   | ND                  | ND              | NA       | NE  |  |  |
|        | Bromodichloromethane                           | ND                  | ND              | NA       | 0.45                                      |  |  |
|        | Bromoform                                      | ND                  | ND              | NA       | 14  |  |  |
|        | Bromomethane                                   | ND                  | ND              | NA       | 1.2                                       |  |  |
|        | N-butylbenzene                                 | 0.00359             | ND              | NA       | NE  |  |  |
|        | Sec-butylbenzene                               | 0.00294             | ND              | NA       | NE  |  |  |
|        | Tert-Butylbenzene                              | 0.000693 J          | ND              | NA       | NE  |  |  |
|        | Carbon tetrachloride                           | ND                  | ND              | NA       | 1.8                                       |  |  |
|        | Chlorobenzene                                  | ND                  | ND              | NA       | 10  |  |  |
|        | Chlorodibromomethane                           | ND                  | ND              | NA       | 0.61                                      |  |  |
|        | Chloroethane                                   | ND                  | ND              | NA       | 2,400                                     |  |  |
|        | Chloroform                                     | ND                  | ND              | NA       | 0.72                                      |  |  |
|        | Chloromethane                                  | ND                  | ND              | NA       | 22  |  |  |
|        | 2-Chlorotoluene                                | ND                  | ND              | NA       | NE  |  |  |
|        | 4-Chlorotoluene<br>1,2-dibromo-3-chloropropane | ND<br>ND            | ND<br>ND        | NA<br>NA | NE<br>NE                                  |  |  |
|        | 1,2-dibromoethane                              | ND                  | ND              | NA       | NE  |  |  |
|        | Dibromomethane                                 | ND                  | ND              | NA       | NE  |  |  |
|        | 1,2-dichlorobenzene                            | ND                  | ND              | NA       | 37  |  |  |
|        | 1,3-dichlorobenzene                            | ND                  | ND              | NA       | NE  |  |  |
|        | 1,4-dichlorobenzene                            | ND                  | ND              | NA       | 1.5                                       |  |  |
|        | Dichlorodifluoromethane                        | ND                  | ND              | NA       | NE  |  |  |
|        | 1,1-dichloroethane                             | ND                  | ND              | NA       | 10  |  |  |
|        | 1,2-dichloroethane                             | ND                  | ND              | NA       | NE  |  |  |
|        | 1,1-dichloroethene                             | ND                  | ND              | NA       | 44  |  |  |
|        | Cis-1,2-dichloroethene                         | ND                  | ND              | NA       | 18  |  |  |
|        | Trans-1,2-dichloroethene                       | ND                  | ND              | NA       | 180                                       |  |  |
|        | 1,2-dichloropropane                            | ND                  | ND              | NA       | NE  |  |  |
| 50     | 1,1-dichloropropene                            | ND                  | ND              | NA       | NE  |  |  |
| >      | 1,3-dichloropropane                            | ND                  | ND              | NA       | NE  |  |  |
|        | Cis-1,3-dichloropropene                        | ND                  | ND              | NA       | NE  |  |  |
|        | Trans-1,3-dichloropropene                      | ND                  | ND              | NA       | NE  |  |  |
|        | 2,2-dichloropropane                            | ND                  | ND              | NA       | NE  |  |  |
|        | Di-isopropyl ether                             | ND                  | ND              | NA       | NE  |  |  |
|        | Ethylbenzene                                   | 0.000498 J          | ND              | NA       | 4.5                                       |  |  |
|        | Hexachloro-1,3-butadiene<br>Isopropylbenzene   | ND                  | ND<br>ND        | NA<br>NA | NE<br>51                                  |  |  |
|        | P-isopropyltoluene                             | 0.00112<br>0.00331  | ND<br>ND        | NA<br>NA | 51<br>NE                                  |  |  |
|        | 2-butanone (Mek)                               | 0.00331<br>ND       | ND              | NA       | NE  |  |  |
|        | Methylene chloride                             | ND                  | ND              | NA       | NE  |  |  |
|        | 4-methyl-2-pentanone (Mibk)                    | ND                  | ND              | NA       | NE  |  |  |
|        | Methyl tert-butyl ether                        | ND                  | ND              | NA       | 63  |  |  |
|        | Naphthalene                                    | 0.00707             | ND              | NA       | 0.5                                       |  |  |
|        | N-propylbenzene                                | 0.00291             | ND              | NA       | NE  |  |  |
|        | Styrene  | ND                  | ND              | NA       | 170                                       |  |  |
|        | 1,1,1,2-tetrachloroethane                      | ND                  | ND              | NA       | NE  |  |  |
|        | 1,1,2,2-tetrachloroethane                      | ND                  | ND              | NA       | NE  |  |  |
|        | 1,1,2-trichlorotrifluoroethane                 | ND                  | ND              | NA       | > \$                                      |  |  |
|        | Tetrachloroethene                              | ND                  | ND              | NA       | 6   |  |  |
|        | Toluene  | 0.00149             | ND              | NA       | 220                                       |  |  |
|        | 1,2,3-trichlorobenzene                         | ND                  | ND              | NA       | NE  |  |  |



#### Table 4: SUMMARY OF MINERAL SPIRITS GROUNDWATER CHEMICAL DATA

|   |                         |             | Cond             | entration (mg/L) | )   |
|---|-------------------------|-------------|------------------|------------------|---|
|   | Compound                | Mineral Spi | rits Groundwater | Samples          | DEQ RBCs for Groundwater<br>in Excavation |
|   | ·                       | MS-131-W    | MS-134-W         | MS-136-W         | Construction & Excavation<br>Worker       |
|   | 1,2,4-trichlorobenzene  | ND          | ND               | NA               | NE  |
|   | 1,1,1-trichloroethane   | ND          | ND               | NA               | 1,100                                     |
|   | 1,1,2-trichloroethane   | ND          | ND               | NA               | 0.049                                     |
| - | Trichloroethene         | ND          | ND               | NA               | 0.43                                      |
|   | Trichlorofluoromethane  | ND          | ND               | NA               | 160                                       |
|   | 1,2,3-trichloropropane  | ND          | ND               | NA               | NE  |
|   | 1,2,4-trimethylbenzene  | 0.000662 J  | 0.000408 J       | NA               | 6   |
|   | 1,2,3-trimethylbenzene  | 0.000515 J  | ND               | NA               | NE  |
| · | 1,3,5-trimethylbenzene  | ND          | ND               | NA               | 8   |
| , | Vinyl chloride          | ND          | ND               | NA               | 0.96                                      |
| 2 | Xylenes, total          | 0.0021 J    | ND               | NA               | 23  |
| 1 | Anthracene              | ND          | ND               | ND               | >\$                                       |
|   | Acenaphthene            | ND          | ND               | ND               | >\$                                       |
| 1 | Acenaphthylene          | ND          | ND               | ND               | NE  |
|   | Benzo(a)anthracene      | 0.0000416 J | ND               | ND               | >\$                                       |
| I | Benzo(a)pyrene          | 0.0000987   | ND               | ND               | >\$                                       |
| 1 | Benzo(b)fluoranthene    | 0.0000842   | ND               | ND               | >\$                                       |
| I | Benzo(g,h,i)perylene    | 0.000197 J3 | ND J3            | 00000251 B J     | NE  |
|   | Benzo(k)fluoranthene    | 0.000022 J  | ND               | ND               | >\$                                       |
|   | Chrysene                | 0.0000313 J | ND               | ND               | >\$                                       |
|   | Dibenz(a,h)anthracene   | ND J3       | ND J3            | ND J3            | >\$                                       |
| Ľ | Fluoranthene            | 0.000118    | ND               | ND               | >\$                                       |
|   | Fluorene                | ND          | ND               | ND               | >\$                                       |
|   | Indeno(1,2,3-cd)pyrene  | 0.00016 J3  | ND J3            | ND J3            | >\$                                       |
|   | Naphthalene             | 0.00054     | 0.0000211 J      | 0.0000268 J      | 0.5                                       |
|   | Phenanthrene            | ND          | ND               | ND               | NE  |
|   | Pyrene                  | 0.000189    | ND               | ND               | >\$                                       |
|   | 1-methylnaphthalene     | ND          | ND               | ND               | NE  |
|   | 2-methylnaphthalene     | ND          | ND               | ND               | NE  |
|   | 2-chloronaphthalene     | ND          | ND               | ND               | NE  |
|   | Diesel-Range Organics   | 15          | NA               | NA               | >\$                                       |
|   | Residual-Range Organics | 2.21        | NA               | NA               | >\$                                       |
|   | Gasoline-Range Organics | 0.38 B      | NA               | NA               | 14  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

**Bold:** Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.



#### Table 5: SUMMARY OF TRUCK SCALES AND CARPENTER SHOP AREA SOIL CHEMICAL DATA

|        |  | Concentration (mg/kg)           Truck Scales and Carpenter Shop Area Soil         DEQ RBCs for Soil Ingestion, Dermal |                   |          |           |                       |   |               |  |  |  |
|--------|--|---|-------------------|----------|-----------|-----------------------|---|---------------|--|--|--|
|        | Compound                               | Truck Sc  |                   |          | Area Soil |                       |   |               |  |  |  |
|        | Compound                               | TS-192-8  | Sam<br>TS-193-15* | -        | CS-198-9  | Conta<br>Occupational | ct, and Inhalatio<br>Construction<br>Worker | Excavation    |  |  |  |
|        | Antimony                               | NA  | NA                | NA       | NA        | NE                    | NE  | Worker<br>NE  |  |  |  |
|        | Arsenic                                | NA  | NA                | NA       | NA        | 1.9                   | 15  | 420           |  |  |  |
|        | Beryllium                              | NA  | NA                | NA       | NA        | 2,300                 | 700   | 19,000        |  |  |  |
|        | Cadmium                                | NA  | NA                | NA       | NA        | 1,100                 | 350   | 9,700         |  |  |  |
|        | Chromium                               | NA  | NA                | NA       | NA        | 6.3                   | 49  | 1400          |  |  |  |
| s      | Copper                                 | NA  | NA                | NA       | NA        | 47,000                | 14,000                                      | 390,000       |  |  |  |
| Metals | Lead                                   | NA  | NA                | NA       | NA        | 800                   | 800   | 800           |  |  |  |
| 2      | Nickel                                 | NA  | NA                | NA       | NA        | 22,000                | 7,000                                       | 190,000       |  |  |  |
|        | Selenium                               | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Silver<br>Thallium                     | NA<br>NA  | NA<br>NA          | NA<br>NA | NA<br>NA  | 5,800<br>NE           | 1,800<br>NE                                 | 49,000<br>NE  |  |  |  |
|        | Zinc                                   | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Mercury                                | NA  | NA                | NA       | NA        | 350                   | 110   | 2,900         |  |  |  |
|        | Acetone                                | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Acrylonitrile                          | NA  | NA                | NA       | NA        | 4                     | 40  | 1,100         |  |  |  |
|        | Benzene                                | NA  | NA                | NA       | NA        | 37                    | 380   | 11,000        |  |  |  |
|        | Bromobenzene                           | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Bromodichloromethane                   | NA  | NA                | NA       | NA        | 15                    | 230   | 6,300         |  |  |  |
|        | Bromoform                              | NA  | NA                | NA       | NA        | 260                   | 2,700                                       | 74,000        |  |  |  |
|        | Bromomethane                           | NA  | NA                | NA       | NA        | 750                   | 370   | 10,000        |  |  |  |
|        | N-butylbenzene                         | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Sec-butylbenzene                       | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Tert-Butylbenzene                      | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Carbon tetrachloride                   | NA  | NA                | NA       | NA        | 34                    | 320   | 8,900         |  |  |  |
|        | Chlorobenzene                          | NA  | NA                | NA       | NA        | 8,700                 | 4,700                                       | 130,000       |  |  |  |
|        | Chlorodibromomethane                   | NA  | NA                | NA       | NA        | 17                    | 210   | 5,800         |  |  |  |
|        | Chloroethane                           | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Chloroform                             | NA  | NA                | NA       | NA        | 26                    | 410   | 11,000        |  |  |  |
|        | Chloromethane                          | NA  | NA                | NA       | NA        | 25,000                | 25,000                                      | 700,000       |  |  |  |
|        | 2-Chlorotoluene                        | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 4-Chlorotoluene                        | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 1,2-dibromo-3-chloropropane            | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 1,2-dibromoethane<br>Dibromomethane    | NA<br>NA  | NA<br>NA          | NA<br>NA | NA        | 0.73<br>NE            | 9<br>NE                                     | 250<br>NE     |  |  |  |
|        | 1,2-dichlorobenzene                    | NA  | NA                | NA       | NA<br>NA  | 36,000                | 20,000                                      | 560,000       |  |  |  |
|        | 1,3-dichlorobenzene                    | NA  | NA                | NA       | NA        | NE                    | 20,000<br>NE                                | NE            |  |  |  |
|        | 1,4-dichlorobenzene                    | NA  | NA                | NA       | NA        | 64                    | 1,300                                       | 36,000        |  |  |  |
|        | Dichlorodifluoromethane                | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 1,1-dichloroethane                     | NA  | NA                | NA       | NA        | 260                   | 3,200                                       | 89,000        |  |  |  |
|        | 1,2-dichloroethane                     | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 1,1-dichloroethene                     | NA  | NA                | NA       | NA        | 29,000                | 13,000                                      | 370,000       |  |  |  |
|        | Cis-1,2-dichloroethene                 | NA  | NA                | NA       | NA        | 2,300                 | 710   | 20,000        |  |  |  |
|        | Trans-1,2-dichloroethene               | NA  | NA                | NA       | NA        | 23,000                | 7,100                                       | 200,000       |  |  |  |
|        | 1,2-dichloropropane                    | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
| Ś      | 1,1-dichloropropene                    | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
| VOCs   | 1,3-dichloropropane                    | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
| -      | Cis-1,3-dichloropropene                | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Trans-1,3-dichloropropene              | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 2,2-dichloropropane                    | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Di-isopropyl ether                     | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Ethylbenzene                           | NA  | NA                | NA       | NA        | 150                   | 1,700                                       | 49,000        |  |  |  |
|        | Hexachloro-1,3-butadiene               | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Isopropylbenzene<br>P-isopropyltoluene | NA<br>NA  | NA<br>NA          | NA<br>NA | NA<br>NA  | 57,000<br>NE          | 27,000<br>NE                                | 750,000<br>NE |  |  |  |
|        | 2-butanone (Mek)                       | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Methylene chloride                     | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 4-methyl-2-pentanone (Mibk)            | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Methyl tert-butyl ether                | NA  | NA                | NA       | NA        | 1,100                 | 12,000                                      | 320,000       |  |  |  |
|        | Naphthalene                            | NA  | NA                | NA       | NA        | 23                    | 580   | 16,000        |  |  |  |
|        | N-propylbenzene                        | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Styrene                                | NA  | NA                | NA       | NA        | 130,000               | 56,000                                      | >Max          |  |  |  |
|        | 1,1,1,2-tetrachloroethane              | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 1,1,2,2-tetrachloroethane              | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 1,1,2-trichlorotrifluoroethane         | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | Tetrachloroethene                      | NA  | NA                | NA       | NA        | 1,000                 | 1,800                                       | 50,000        |  |  |  |
|        | Toluene                                | NA  | NA                | NA       | NA        | 88,000                | 28,000                                      | 770,000       |  |  |  |
|        | 1,2,3-trichlorobenzene                 | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |
|        | 1,2,4-trichlorobenzene                 | NA  | NA                | NA       | NA        | NE                    | NE  | NE            |  |  |  |



#### Table 5: SUMMARY OF TRUCK SCALES AND CARPENTER SHOP AREA SOIL CHEMICAL DATA

|      |                         | Concentration (mg/kg) |               |           |           |              |                        |                      |  |  |
|------|-------------------------|-----------------------|---------------|-----------|-----------|--------------|------------------------|----------------------|--|--|
|      |                         | Truck Sca             | ales and Carp |           | Area Soil |              | or Soil Ingestion      |                      |  |  |
|      | Compound                |                       | Sam           | ples      |           | Conta        | ct, and Inhalatio      |                      |  |  |
|      |                         | TS-192-8              | TS-193-15*    | TS-195-11 | CS-198-9  | Occupational | Construction<br>Worker | Excavation<br>Worker |  |  |
|      | 1,1,1-trichloroethane   | NA                    | NA            | NA        | NA        | 870,000      | 470,000                | >Max                 |  |  |
|      | 1,1,2-trichloroethane   | NA                    | NA            | NA        | NA        | 26           | 54                     | 1,500                |  |  |
|      | Trichloroethene         | NA                    | NA            | NA        | NA        | 51           | 130                    | 3,700                |  |  |
|      | Trichlorofluoromethane  | NA                    | NA            | NA        | NA        | 130,000      | 69,000                 | >Max                 |  |  |
|      | 1,2,3-trichloropropane  | NA                    | NA            | NA        | NA        | NE           | NE                     | NE                   |  |  |
|      | 1,2,4-trimethylbenzene  | NA                    | NA            | NA        | NA        | 6,900        | 6,900                  | 81,000               |  |  |
|      | 1,2,3-trimethylbenzene  | NA                    | NA            | NA        | NA        | NE           | NE                     | NE                   |  |  |
|      | 1,3,5-trimethylbenzene  | NA                    | NA            | NA        | NA        | 6,900        | 6,900                  | 81,000               |  |  |
|      | Vinyl chloride          | NA                    | NA            | NA        | NA        | 4.4          | 34                     | 950                  |  |  |
|      | Xylenes, total          | NA                    | NA            | NA        | NA        | 25,000       | 20,000                 | 560,000              |  |  |
|      | Anthracene              | 0.00227 J             | ND            | ND        | ND        | 350,000      | 110,000                | >Max                 |  |  |
|      | Acenaphthene            | 0.00338 J             | ND            | ND        | ND        | 70,000       | 21,000                 | 590,000              |  |  |
|      | Acenaphthylene          | ND                    | ND            | ND        | ND        | NE           | NE                     | NE                   |  |  |
|      | Benzo(a)anthracene      | ND                    | ND            | ND        | ND        | 21           | 170                    | 4,800                |  |  |
|      | Benzo(a)pyrene          | ND                    | ND            | ND        | ND        | 2.1          | 17                     | 490                  |  |  |
|      | Benzo(b)fluoranthene    | ND                    | ND            | ND        | ND        | 21           | 170                    | 4,900                |  |  |
|      | Benzo(g,h,i)perylene    | ND                    | ND            | ND        | ND        | NE           | NE                     | NE                   |  |  |
|      | Benzo(k)fluoranthene    | ND                    | ND            | ND        | ND        | 210          | 1,700                  | 49,000               |  |  |
| (0   | Chrysene                | ND                    | ND            | ND        | ND        | 2,100        | 17,000                 | 490,000              |  |  |
| PAHs | Dibenz(a,h)anthracene   | ND                    | ND            | ND        | ND        | 2.1          | 17                     | 490                  |  |  |
| с.   | Fluoranthene            | ND                    | ND            | ND        | ND        | 30,000       | 10,000                 | 280,000              |  |  |
|      | Fluorene                | 0.00522 J             | ND            | ND        | ND        | 47,000       | 14,000                 | 390,000              |  |  |
|      | Indeno(1,2,3-cd)pyrene  | ND                    | ND            | ND        | ND        | 21           | 170                    | 4,900                |  |  |
|      | Naphthalene             | 0.00295 J             | ND            | 0.00317 J | ND        | 23           | 580                    | 16,000               |  |  |
|      | Phenanthrene            | 0.0154                | ND            | 0.00148 J | ND        | NE           | NE                     | NE                   |  |  |
|      | Pyrene                  | 0.0012 J              | ND            | ND        | ND        | 23,000       | 7,500                  | 210,000              |  |  |
|      | 1-methylnaphthalene     | 0.0205 J              | ND            | ND        | ND        | NE           | NE                     | NE                   |  |  |
|      | 2-methylnaphthalene     | 0.0216 J              | ND            | ND        | ND        | NE           | NE                     | NE                   |  |  |
|      | 2-chloronaphthalene     | ND                    | ND            | ND        | ND        | NE           | NE                     | NE                   |  |  |
|      | Total PCBs              | NA                    | NA            | NA        | NA        | 0.59         | 4.9                    | 140                  |  |  |
|      | Diesel-Range Organics   | 13.2                  | ND            | ND        | ND        | 14,000       | 4,600                  | >Max                 |  |  |
|      | Residual-Range Organics | ND                    | ND            | ND        | ND        | 14,000       | 4,600                  | >Max                 |  |  |
|      | Gasoline-Range Organics | NA                    | NA            | NA        | NA        | 20,000       | 9,700                  | >Max                 |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

 $V_3$ : The internal standard exhibited poor recovery due to sample matrix interference. The

analytical results will be biased high. Below detection limit (BDL) results will be unaffected. NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.

\* Sample incorrectly submitted to lab as "TS-192-15"



#### Table 6: SUMMARY OF TRUCK SCALES GROUNDWATER CHEMICAL DATA

| CompoundAntimonyArsenicBerylliumCadmiumCadmiumCadmiumCopperLeadCopperLeadNickelSeleniumSilverFhalliumZincAcetoneAcroleinAcroleinAcroleinAcroleinBinomobenzeneBromobenzeneBromodichloromethaneBromomethaneSilverFalliulumComponethaneComponethaneComponethaneCarbon tetrachloride   | Truck Scales Grou           TS-195-W           ND           0.013           ND           0.00106 J           0.00479           0.0565           0.0106           0.0241           ND           ND           0.00106           0.0106           0.0106           0.0106           0.0106           0.0106           ND   | Indwater Samples           TS-204-W           ND           0.0745           ND           0.0745           ND           0.0745           ND           0.0745           ND           0.0745           ND           0.012           0.0414           0.00386           0.0213           ND   | Carpenter Shop Groundwater<br>Sample<br>CS-198-W<br>ND<br>0.0218<br>ND<br>ND<br>0.00325 J<br>ND<br>0.000403 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | DEQ RBCs for Groundwater<br>in Excavation           Construction & Excavation           Worker           NE           6.3           270           130           9.4           5,400           > S           NE           1,100           ND           NE           0.25           1.8   |
|--|--|--|---|---|
| ArsenicIBerylliumICadmiumICadmiumICopperILeadISeleniumISeleniumISeleniumISilverIFhalliumIZincIAcetoneIAcroleinIAcrylonitrileIBenzeneIBromobenzeneIBromodichloromethaneIBromomethaneIBromomethaneIFert-ButylbenzeneIFert-ButylbenzeneIFert-ButylbenzeneI  | ND<br>0.013<br>ND<br>0.00106 J<br>0.0479<br>0.0565<br>0.0106<br>0.0241<br>ND<br>ND<br>ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND  | ND<br>0.0745<br>ND<br>ND<br>0.12<br>0.0414<br>0.00386<br>0.0213<br>ND<br>0.0213<br>ND<br>ND<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | ND           0.0218           ND           ND           0.00325 J           ND           0.000403 J           ND           ND           ND           0.000403 J           ND           NA           NA           NA           NA           NA           NA           NA           NA   | Worker           NE           6.3           270           130           9.4           5,400           >S           NE           1,100           ND           NE           SS           NE           ND           NE  |
| ArsenicIBerylliumICadmiumICadmiumICopperILeadISeleniumISeleniumISeleniumISilverIFhalliumIZincIAcetoneIAcroleinIAcrylonitrileIBenzeneIBromobenzeneIBromodichloromethaneIBromomethaneIBromomethaneIFert-ButylbenzeneIFert-ButylbenzeneIFert-ButylbenzeneI  | 0.013<br>ND<br>0.00106 J<br>0.0479<br>0.0565<br>0.0106<br>0.0241<br>ND<br>ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND  | 0.0745<br>ND<br>ND<br>0.12<br>0.0414<br>0.00386<br>0.0213<br>ND<br>ND<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | 0.0218<br>ND<br>ND<br>0.00325 J<br>ND<br>0.000403 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | NE           6.3           270           130           9.4           5,400           > S           > S           > S           NE           1,100           ND           NE           > S           NE           0.25   |
| BerylliumImage: SerylliumCadmiumImage: Seriem of the seriem of | ND<br>0.00106 J<br>0.0479<br>0.0565<br>0.0106<br>0.0241<br>ND<br>ND<br>ND<br>0.101<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND  | ND<br>ND<br>0.12<br>0.0414<br>0.00386<br>0.0213<br>ND<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | ND<br>ND<br>0.00325 J<br>ND<br>0.000403 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA  | 270<br>130<br>9.4<br>5,400<br>> S<br>S<br>NE<br>1,100<br>ND<br>NE<br>S<br>S<br>NE<br>S<br>S<br>NE<br>NE<br>NE<br>NE<br>NE<br>0.25   |
| CadmiumIChromiumICopperILeadINickelISeleniumISilverIFhalliumIZincIMercuryIAcetoneIAcroleinIAcroleinIBenzeneIBromobenzeneIBromoformIBromomethaneIBromomethaneIBromomethaneIFert-ButylbenzeneIFert-ButylbenzeneI   | 0.00106 J<br>0.0479<br>0.0565<br>0.0106<br>0.0241<br>ND<br>ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND<br>ND<br>J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | ND<br>0.12<br>0.0414<br>0.00386<br>0.0213<br>ND<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | ND<br>0.00325 J<br>ND<br>0.000403 J<br>ND<br>ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA  | 130<br>9.4<br>5,400<br>> S<br>> S<br>NE<br>1,100<br>ND<br>NE<br>> S<br>NE<br>NE<br>NE<br>NE<br>NE<br>0.25   |
| ChromiumChromiumCopperICopperILeadINickelISeleniumISeleniumISilverIFhalliumIZincIMercuryIAcroleinIAcroloinIBenzeneIBromobenzeneIBromoformIBromomethaneIBromomethaneIBromothane </td <td>0.0479<br/>0.0565<br/>0.0106<br/>0.0241<br/>ND<br/>ND<br/>ND<br/>0.101<br/>0.101<br/>0.000128 J<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND</td> <td>0.12<br/>0.0414<br/>0.00386<br/>0.0213<br/>ND<br/>ND<br/>ND<br/>0.034 J<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>J4<br/>ND<br/>ND<br/>ND</td> <td>0.00325 J<br/>ND<br/>0.000403 J<br/>ND<br/>ND<br/>ND<br/>ND<br/>0.0000542 J<br/>NA<br/>NA<br/>NA<br/>NA</td> <td>9.4<br/>5,400<br/>&gt; S<br/>&gt; S<br/>NE<br/>1,100<br/>ND<br/>ND<br/>NE<br/>&gt; S<br/>NE<br/>NE<br/>NE<br/>0.25</td>  | 0.0479<br>0.0565<br>0.0106<br>0.0241<br>ND<br>ND<br>ND<br>0.101<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | 0.12<br>0.0414<br>0.00386<br>0.0213<br>ND<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>J4<br>ND<br>ND<br>ND   | 0.00325 J<br>ND<br>0.000403 J<br>ND<br>ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA  | 9.4<br>5,400<br>> S<br>> S<br>NE<br>1,100<br>ND<br>ND<br>NE<br>> S<br>NE<br>NE<br>NE<br>0.25  |
| CopperILeadILeadINickelISeleniumISeleniumISilverIFhalliumIZincIMercuryIAcetoneIAcroleinIAcrylonitrileIBenzeneIBromobenzeneIBromoformIBromoformIBromomethaneISec-butylbenzeneIFert-ButylbenzeneIFert-ButylbenzeneI  | 0.0565<br>0.0106<br>0.0241<br>ND<br>ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND  | 0.0414<br>0.00386<br>0.0213<br>ND<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>J4<br>ND<br>ND<br>ND   | ND<br>0.000403 J<br>ND<br>ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA   | 5,400<br>5 S<br>5 S<br>NE<br>1,100<br>ND<br>NE<br>5 S<br>NE<br>NE<br>0.25   |
| LeadNickelNickelSeleniumSilverFhalliumIncVercuryMercuryAcetoneAcroleinAcroleinAcrylonitrileBenzeneBromobenzeneBromodichloromethaneBromoformBromomethane <tr< td=""><td>0.0106<br/>0.0241<br/>ND<br/>ND<br/>0.101<br/>0.000128 J<br/>ND<br/>ND<br/>ND J4<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND</td><td>0.00386<br/>0.0213<br/>ND<br/>ND<br/>ND<br/>0.034 J<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>ND<br/>J4<br/>ND<br/>ND<br/>ND</td><td>0.000403 J<br/>ND<br/>ND<br/>ND<br/>ND<br/>0.0000542 J<br/>NA<br/>NA<br/>NA<br/>NA</td><td>&gt; S<br/>&gt; S<br/>NE<br/>1,100<br/>ND<br/>NE<br/>&gt; S<br/>NE<br/>NE<br/>0.25</td></tr<>  | 0.0106<br>0.0241<br>ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | 0.00386<br>0.0213<br>ND<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>J4<br>ND<br>ND<br>ND   | 0.000403 J<br>ND<br>ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA   | > S<br>> S<br>NE<br>1,100<br>ND<br>NE<br>> S<br>NE<br>NE<br>0.25  |
| NickelISeleniumSeleniumSeleniumSeleniumSilverFFhalliumSeleniumZincMarcuryAcetoneSeconeAcroleinSenzeneAcrylonitrileSenzeneBromobenzeneSenomobenzeneBromodichloromethaneSenomoformBromomethaneSecomothaneSec-butylbenzeneSec-butylbenzeneFert-ButylbenzeneSecone   | 0.0241<br>ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | 0.0213<br>ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND J4<br>ND<br>ND   | ND<br>ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA   | > S<br>NE<br>1,100<br>ND<br>NE<br>S<br>NE<br>NE<br>0.25   |
| SeleniumSeleniumSilverSilverSilverSilverFhalliumSilverZincMercuryMercuryMercuryAcetoneAcetoneAcetoneSilverAcroleinSilverAcrylonitrileSilverBenzeneSilverBromobenzeneSilverBromodichloromethaneSilverBromoformSilverBromomethaneSilverSilverSilverSec-butylbenzeneSilverFert-ButylbenzeneSilver   | ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>ND J4<br>ND<br>ND<br>ND   | ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA   | NE         1,100         ND         NE         >S         NE         NE         0.25  |
| SilverSilverFhalliumFhalliumZincFhalliumAcroleinFhalliumAcroleinFhalliumAcroloinFhalliumAcrylonitrileFhalliumBenzeneFormobenzeneBromobenzeneFormoformBromoformFormoformBromomethaneFormomethaneBromomethaneFormoformFert-ButylbenzeneFormoform   | ND<br>ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND  | ND<br>ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND<br>J4<br>ND<br>ND  | ND<br>ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA   | 1,100<br>ND<br>NE<br>> S<br>NE<br>NE<br>0.25  |
| FhalliumCincZincMercuryAcetoneAcetoneAcroleinAcrylonitrileBanzeneBromobenzeneBromodichloromethaneBromoformBromomethaneBromomethaneBromomethaneBromomethaneBromotylbenzeneGec-butylbenzeneFert-Butylbenzene   | ND<br>0.101<br>0.000128 J<br>ND<br>ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | ND<br>0.034 J<br>ND<br>ND<br>ND<br>ND J4<br>ND<br>ND   | ND<br>ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA   | ND<br>NE<br>> S<br>NE<br>NE<br>0.25   |
| ZincIMercuryIAcetoneIAcroleinIAcrylonitrileIBenzeneIBromobenzeneIBromodichloromethaneIBromoformIBromomethaneIBromomethaneIBromotylbenzeneIFert-ButylbenzeneIFert-ButylbenzeneI   | 0.101<br>0.000128 J<br>ND<br>ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND   | 0.034 J<br>ND<br>ND<br>ND<br>ND J4<br>ND<br>ND   | ND<br>0.0000542 J<br>NA<br>NA<br>NA<br>NA   | NE<br>> S<br>NE<br>0.25   |
| MercuryMercuryAcetoneAcetoneAcroleinAcroleinAcrylonitrileBenzeneBenzeneBenzeneBromobenzeneBenzeneBromodichloromethaneBenzeneBromoformBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzeneBromomethaneBenzene  | 0.000128 J<br>ND<br>ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND  | ND<br>ND<br>ND<br>J4<br>ND<br>ND   | 0.0000542 J<br>NA<br>NA<br>NA<br>NA   | > S<br>NE<br>NE<br>0.25   |
| AcetoneAcroleinAcroleinAcrylonitrileBenzeneBromobenzeneBromodichloromethaneBromoformBromomethaneN-butylbenzeneSec-butylbenzeneFert-Butylbenzene  | ND<br>ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND  | ND<br>ND<br>ND J4<br>ND<br>ND  | NA<br>NA<br>NA<br>NA  | NE<br>NE<br>0.25  |
| AcroleinAcroleinAcrylonitrileBenzeneBromobenzeneBromodichloromethaneBromoformBromomethaneN-butylbenzeneSec-butylbenzeneFert-Butylbenzene   | ND<br>ND J4<br>ND<br>ND<br>ND<br>ND<br>ND  | ND<br>ND J4<br>ND<br>ND  | NA<br>NA<br>NA  | NE<br>0.25  |
| Benzene<br>Bromobenzene<br>Bromodichloromethane<br>Bromoform<br>Bromomethane<br>N-butylbenzene<br>Sec-butylbenzene<br>Fert-Butylbenzene  | ND<br>ND<br>ND<br>ND<br>ND   | ND<br>ND   | NA  |   |
| Bromobenzene<br>Bromodichloromethane<br>Bromoform<br>Bromomethane<br>N-butylbenzene<br>Gec-butylbenzene<br>Fert-Butylbenzene   | ND<br>ND<br>ND<br>ND   | ND   |   | 1.8   |
| Bromodichloromethane<br>Bromoform<br>Bromomethane<br>N-butylbenzene<br>Sec-butylbenzene<br>Fert-Butylbenzene   | ND<br>ND<br>ND   |  | NIA   |   |
| Bromoform<br>Bromomethane<br>N-butylbenzene<br>Gec-butylbenzene<br>Fert-Butylbenzene   | ND<br>ND   | ND   | INA   | NE  |
| Bromomethane<br>N-butylbenzene<br>Gec-butylbenzene<br>Fert-Butylbenzene  | ND   |  | NA  | 0.45  |
| N-butylbenzene<br>Sec-butylbenzene<br>Fert-Butylbenzene  |  | ND   | NA  | 14  |
| Sec-butylbenzene<br>Fert-Butylbenzene  |  | ND   | NA  | 1.2   |
| Fert-Butylbenzene  | ND   | ND   | NA  | NE  |
|  | ND   | ND   | NA  | NE  |
| Larbon tetrachioride   | ND   | ND   | NA  | NE<br>1.0   |
| Chlorobenzene  | ND<br>ND   | ND<br>ND   | NA<br>NA  | 1.8   |
| Chlorodibromomethane   | ND   | ND   | NA  | 0.61  |
| Chloroethane   | ND   | ND   | NA  | 2,400   |
|  |  |  |   | 0.72  |
| Chloromethane  | ND   | ND   | NA  | 22  |
| 2-Chlorotoluene  | ND   | ND   | NA  | NE  |
| 4-Chlorotoluene  | ND   | ND   | NA  | NE  |
| 1,2-dibromo-3-chloropropane  | ND   | ND   | NA  | NE  |
| 1,2-dibromoethane  | ND   | ND   | NA  | NE  |
|  | ND   | ND   | NA  | NE  |
|  |  |  |   | 37  |
|  |  |  |   | NE  |
|  |  |  |   | 1.5<br>NE   |
|  |  |  |   | 10  |
|  |  |  |   | NE  |
|  |  |  |   | 44  |
| Cis-1,2-dichloroethene   | ND   | ND   | NA  | 18  |
| Trans-1,2-dichloroethene   | ND   | ND   | NA  | 180   |
| 1,2-dichloropropane  | ND   | ND   | NA  | NE  |
| 1,1-dichloropropene  | ND   | ND   | NA  | NE  |
| 1,3-dichloropropane  | ND   | ND   | NA  | NE  |
|  |  |  |   | NE  |
| ·  |  |  |   | NE  |
|  |  |  |   | NE  |
|  |  |  |   | NE<br>4.5   |
|  |  |  |   | A.5<br>NE   |
|  |  |  |   | 51  |
|  |  |  |   | NE  |
| 2-butanone (Mek)   | ND   | ND   | NA  | NE  |
| Methylene chloride   | ND   | ND   | NA  | NE  |
| 4-methyl-2-pentanone (Mibk)  | ND   | ND   | NA  | NE  |
| Methyl tert-butyl ether  | ND   | ND   | NA  | 63  |
| Naphthalene  | ND   | ND   | NA  | 0.5   |
| N-propylbenzene  | ND   | ND   | NA  | NE  |
| Styrene  | ND   | ND   | NA  | 170   |
|  | ND   | ND   | NA  | NE  |
|  |  |  |   | NE  |
|  |  |  |   | >\$   |
|  |  |  |   | 6   |
|  |  |  |   | 220<br>NE   |
|  | 2-Chlorotoluene4-Chlorotoluene4-Chlorotoluene1,2-dibromo-3-chloropropane1,2-dibromoethane1,2-dichlorobenzene1,3-dichlorobenzene1,4-dichlorobenzene1,1-dichlorothane1,2-dichlorothane1,1-dichloroethane1,1-dichloroethane1,1-dichloroethane1,2-dichloropropane1,1-dichloropropane1,2-dichloropropane1,2-dichloropropane1,1-dichloropropane1,2-dichloropropane1,2-dichloropropane1,2-dichloropropane1,2-dichloropropane1,2-dichloropropane1,2-dichloropropane1,2-dichloropropane1,2-dichloropropane1,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane2,2-dichloropropane | ChloromethaneND2-ChlorotolueneND4-ChlorotolueneND4-ChlorotolueneND1,2-dibromo-3-chloropropaneND1,2-dibromoethaneND1,2-dibromoethaneND1,2-dichlorobenzeneND1,3-dichlorobenzeneND1,4-dichlorobenzeneND1,4-dichlorobenzeneND1,1-dichloroethaneND1,1-dichloroethaneND1,1-dichloroethaneND1,1-dichloroethaneND1,2-dichloropopaneND1,2-dichloropropaneND1,3-dichloropropaneND1,3-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND2,2-dichloropropaneND4-exachloro-1,3-butadieneND4-exachloro-1,3-butadieneND2-butanone (Mek)ND4-ethyl-2-pentanone (Mibk)ND4-ethyl-1-2-pentanone (Mibk)ND4-thylaeneND3-sopropylbenzeneND4-propylbenzeneND4-propylbenzeneND4-propylbenzeneND3-tyreneND <t< td=""><td>ChloromethaneNDND2-ChlorotolueneNDND2-ChlorotolueneNDND4-ChlorotolueneNDND1,2-dibromo-3-chloropropaneNDND1,2-dibromoethaneNDND1,2-dichlorobenzeneNDND1,2-dichlorobenzeneNDND1,2-dichlorobenzeneNDND1,2-dichlorobenzeneNDND1,4-dichlorobenzeneNDND1,1-dichlorodifluoromethaneNDND1,1-dichlorodifluoromethaneNDND1,1-dichloroethaneNDND1,1-dichloroethaneNDND1,1-dichloroethaneNDND1,2-dichloroptopaneNDND1,2-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND1,2-dichloroptopaneNDND1,2-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopane<td>ChioronethaneNDNDNA2ChiorotolueneNDNDNA4ChiorotolueneNDNDNA4ChiorotolueneNDNDNA1,2-dibromo-3-chioropropaneNDNDNA1,2-dichoronethaneNDNDNA2,2-dibromoethaneNDNDNA1,2-dichorobenzeneNDNDNA1,2-dichorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,2-dichloropropaneNDNDNA1,2-dichloropropaneNDNDNA1,2-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropan</td></td></t<> | ChloromethaneNDND2-ChlorotolueneNDND2-ChlorotolueneNDND4-ChlorotolueneNDND1,2-dibromo-3-chloropropaneNDND1,2-dibromoethaneNDND1,2-dichlorobenzeneNDND1,2-dichlorobenzeneNDND1,2-dichlorobenzeneNDND1,2-dichlorobenzeneNDND1,4-dichlorobenzeneNDND1,1-dichlorodifluoromethaneNDND1,1-dichlorodifluoromethaneNDND1,1-dichloroethaneNDND1,1-dichloroethaneNDND1,1-dichloroethaneNDND1,2-dichloroptopaneNDND1,2-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND1,2-dichloroptopaneNDND1,2-dichloroptopaneNDND1,1-dichloroptopaneNDND1,1-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopaneNDND2,2-dichloroptopane <td>ChioronethaneNDNDNA2ChiorotolueneNDNDNA4ChiorotolueneNDNDNA4ChiorotolueneNDNDNA1,2-dibromo-3-chioropropaneNDNDNA1,2-dichoronethaneNDNDNA2,2-dibromoethaneNDNDNA1,2-dichorobenzeneNDNDNA1,2-dichorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,2-dichloropropaneNDNDNA1,2-dichloropropaneNDNDNA1,2-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropan</td> | ChioronethaneNDNDNA2ChiorotolueneNDNDNA4ChiorotolueneNDNDNA4ChiorotolueneNDNDNA1,2-dibromo-3-chioropropaneNDNDNA1,2-dichoronethaneNDNDNA2,2-dibromoethaneNDNDNA1,2-dichorobenzeneNDNDNA1,2-dichorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,2-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,1-dichlorobenzeneNDNDNA1,2-dichloropropaneNDNDNA1,2-dichloropropaneNDNDNA1,2-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA1,3-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropaneNDNDNA2,2-dichloropropan |



#### Table 6: SUMMARY OF TRUCK SCALES GROUNDWATER CHEMICAL DATA

|            |                      |                   |                 | Concentration (mg/l)                 |   |
|------------|----------------------|-------------------|-----------------|--------------------------------------|---|
|            | Compound             | Truck Scales Grou | ndwater Samples | Carpenter Shop Groundwater<br>Sample | DEQ RBCs for Groundwater<br>in Excavation |
|            |                      | TS-195-W          | TS-204-W        | CS-198-W                             | Construction & Excavation<br>Worker       |
| 1,2,4      | 4-trichlorobenzene   | ND                | ND              | NA                                   | NE  |
| 1,1,1      | 1-trichloroethane    | ND                | ND              | NA                                   | 1,100                                     |
| 1,1,2      | 2-trichloroethane    | ND                | ND              | NA                                   | 0.049                                     |
| Trich      | nloroethene          | ND                | ND              | NA                                   | 0.43                                      |
| Trich      | nlorofluoromethane   | ND                | ND              | NA                                   | 160                                       |
| 1,2,3      | 3-trichloropropane   | ND                | ND              | NA                                   | NE  |
| 1,2,4      | 4-trimethylbenzene   | ND                | ND              | NA                                   | 6   |
| 1,2,3      | 3-trimethylbenzene   | ND                | ND              | NA                                   | NE  |
| 1,3,5      | 5-trimethylbenzene   | ND                | ND              | NA                                   | 8   |
| Viny       | l chloride           | ND                | ND              | NA                                   | 0.96                                      |
| Xylei      | nes, total           | ND                | ND              | NA                                   | 23  |
| Anth       | nracene              | ND                | ND              | ND                                   | >\$                                       |
| Acen       | naphthene            | 0.000079 J        | ND              | ND                                   | > \$                                      |
| Acen       | naphthylene          | ND                | ND              | ND                                   | NE  |
| Benz       | zo(a)anthracene      | ND                | ND              | ND                                   | >\$                                       |
| Benz       | zo(a)pyrene          | ND                | ND              | ND                                   | >\$                                       |
| Benz       | zo(b)fluoranthene    | ND                | ND              | ND                                   | >\$                                       |
| Benz       | zo(g,h,i)perylene    | 0.0000329 B J     | ND              | 0.00000339 B J                       | NE  |
| Benz       | zo(k)fluoranthene    | ND                | ND              | ND                                   | >\$                                       |
| Chry       | /sene                | ND                | ND              | ND                                   | >\$                                       |
| SHY Dibe   | enz(a,h)anthracene   | ND                | ND              | ND                                   | >\$                                       |
| ←<br>Fluor | ranthene             | ND                | ND              | ND                                   | >\$                                       |
| Fluor      | rene                 | 0.000156 J        | ND              | ND                                   | >\$                                       |
| Inde       | no(1,2,3-cd)pyrene   | ND                | ND              | ND                                   | >\$                                       |
| Napł       | hthalene             | 0.000303 B J      | 0.0000744 B J   | 0.0000473 B J                        | 0.5                                       |
| Phen       | nanthrene            | ND                | ND              | ND                                   | NE  |
| Pyrei      | ne                   | ND                | ND              | ND                                   | >\$                                       |
| 1-me       | ethylnaphthalene     | 0.000353 J        | ND              | ND                                   | NE  |
| 2-me       | ethylnaphthalene     | 0.000218 J        | ND              | ND                                   | NE  |
| 2-chl      | loronaphthalene      | ND                | ND              | ND                                   | NE  |
| Die        | esel-Range Organics  | 0.601             | 0.183           | 0.327                                | >\$                                       |
| Resi       | idual-Range Organics | 0.855             | 0.288           | 0.459                                | >\$                                       |
| Gase       | oline-Range Organics | ND                | ND              | NA                                   | 14  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

**Bold:** Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.



# Table 7: SUMMARY OF CHIP TRUCK HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

|        | Compound  | ( hin Truck Hydraulic Lift Area Noil Namples |           |          |           |           |           |           |              | s for Soil Ingestion, Dermal<br>ntact, and Inhalation |                      |  |
|--------|---|--|-----------|----------|-----------|-----------|-----------|-----------|--------------|---|----------------------|--|
|        |   | CT-142-11                                    | CT-145-16 | CT-145-7 | CT-146-13 | CT-149-13 | CT-149-29 | CT-150-13 | Occupational | Construction<br>Worker                                | Excavation<br>Worker |  |
|        | Antimony  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Arsenic   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 1.9          | 15  | 420                  |  |
|        | Beryllium   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 2,300        | 700   | 19,000               |  |
|        | Cadmium   | NA<br>NA                                     | NA<br>NA  | NA<br>NA | NA<br>NA  | NA<br>NA  | NA<br>NA  | NA<br>NA  | 1,100<br>6.3 | 350<br>49   | 9,700<br>1400        |  |
|        | Copper  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 47,000       | 14,000  | 390,000              |  |
| Metals | Lead  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 800          | 800   | 800                  |  |
| Ž      | Nickel  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 22,000       | 7,000   | 190,000              |  |
|        | Selenium  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Silver  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 5,800        | 1,800   | 49,000               |  |
|        | Thallium  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Zinc  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Mercury   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 350          | 110   | 2,900                |  |
|        | Acetone   | NA<br>NA                                     | NA<br>NA  | NA<br>NA | NA<br>NA  | NA<br>NA  | NA<br>NA  | NA<br>NA  | NE<br>4      | NE<br>40  | NE<br>1,100          |  |
|        | Acrylonitrile<br>Benzene                                    | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 4<br>37      | 380   | 1,100                |  |
|        | Bromobenzene  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Bromodichloromethane  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 15           | 230   | 6,300                |  |
|        | Bromoform   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 260          | 2,700   | 74,000               |  |
|        | Bromomethane  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 750          | 370   | 10,000               |  |
|        | N-butylbenzene  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Sec-butylbenzene  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Tert-Butylbenzene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Carbon tetrachloride  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 34           | 320   | 8,900                |  |
|        | Chlorobenzene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 8,700        | 4,700   | 130,000              |  |
|        | Chlorodibromomethane<br>Chloroethane                        | NA<br>NA                                     | NA<br>NA  | NA<br>NA | NA<br>NA  | NA<br>NA  | NA<br>NA  | NA<br>NA  | 17<br>NE     | 210<br>NE   | 5,800<br>NE          |  |
|        | Chloroform  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 26           | 410   | 11,000               |  |
|        | Chloromethane   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 25,000       | 25,000  | 700,000              |  |
|        | 2-Chlorotoluene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 4-Chlorotoluene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 1,2-dibromo-3-chloropropane                                 | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 1,2-dibromoethane   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 0.73         | 9   | 250                  |  |
|        | Dibromomethane  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 1,2-dichlorobenzene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 36,000       | 20,000  | 560,000              |  |
|        | 1,3-dichlorobenzene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 1,4-dichlorobenzene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 64           | 1,300   | 36,000               |  |
|        | Dichlorodifluoromethane                                     | NA<br>NA                                     | NA<br>NA  | NA<br>NA | NA<br>NA  | NA<br>NA  | NA<br>NA  | NA<br>NA  | NE<br>260    | NE<br>3,200   | NE<br>89,000         |  |
|        | 1,2-dichloroethane  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 1,1-dichloroethene  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 29,000       | 13,000  | 370,000              |  |
|        | Cis-1,2-dichloroethene                                      | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 2,300        | 710   | 20,000               |  |
|        | Trans-1,2-dichloroethene                                    | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 23,000       | 7,100   | 200,000              |  |
|        | 1,2-dichloropropane   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
| S      | 1,1-dichloropropene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
| VOCs   | 1,3-dichloropropane   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Cis-1,3-dichloropropene                                     | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Trans-1,3-dichloropropene                                   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 2,2-dichloropropane   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Di-isopropyl ether<br>Ethylbenzene                          | NA<br>NA                                     | NA<br>NA  | NA<br>NA | NA<br>NA  | NA<br>NA  | NA        | NA<br>NA  | NE           | NE  | NE                   |  |
|        | Hexachloro-1,3-butadiene                                    | NA   | NA        | NA       | NA        | NA        | NA<br>NA  | NA        | 150<br>NE    | 1,700<br>NE   | 49,000<br>NE         |  |
|        | Isopropylbenzene  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 57,000       | 27,000  | 750,000              |  |
|        | P-isopropyltoluene  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 2-butanone (Mek)  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Methylene chloride  | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 4-methyl-2-pentanone (Mibk)                                 | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Methyl tert-butyl ether                                     | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 1,100        | 12,000  | 320,000              |  |
|        | Naphthalene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 23           | 580   | 16,000               |  |
|        | N-propylbenzene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | Styrene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 130,000      | 56,000  | >Max                 |  |
|        | 1,1,1,2-tetrachloroethane                                   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |
|        | 1,1,2,2-tetrachloroethane<br>1,1,2-trichlorotrifluoroethane | NA<br>NA                                     | NA        | NA       | NA        | NA        | NA        | NA        | NE<br>NE     | NE<br>NE  | NE<br>NE             |  |
|        | Tetrachloroethene   | NA<br>NA                                     | NA<br>NA  | NA<br>NA | NA<br>NA  | NA<br>NA  | NA<br>NA  | NA<br>NA  | NE<br>1,000  | NE<br>1,800   | NE<br>50,000         |  |
|        | Toluene   | NA   | NA        | NA       | NA        | NA        | NA        | NA        | 88,000       | 28,000  | 770,000              |  |
|        | 1,2,3-trichlorobenzene                                      | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | 20,000<br>NE  | NE                   |  |
|        | 1,2,4-trichlorobenzene                                      | NA   | NA        | NA       | NA        | NA        | NA        | NA        | NE           | NE  | NE                   |  |



## Table 7: SUMMARY OF CHIP TRUCK HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

|                         |           |   |           |           | Conce     | entration (mg | g/kg)     |              |  |                      |  |
|-------------------------|-----------|---|-----------|-----------|-----------|---------------|-----------|--------------|--|----------------------|--|
| Compound                |           | Chip Truck Hydraulic Lift Area Soil Samples |           |           |           |               |           |              | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |                      |  |
|                         | CT-142-11 | CT-145-16                                   | CT-145-7  | CT-146-13 | CT-149-13 | CT-149-29     | CT-150-13 | Occupational | Construction<br>Worker   | Excavation<br>Worker |  |
| 1,1,1-trichloroethane   | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 870,000      | 470,000  | >Max                 |  |
| 1,1,2-trichloroethane   | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 26           | 54   | 1,500                |  |
| Trichloroethene         | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 51           | 130  | 3,700                |  |
| Trichlorofluoromethane  | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 130,000      | 69,000   | >Max                 |  |
| 1,2,3-trichloropropane  | NA        | NA  | NA        | NA        | NA        | NA            | NA        | NE           | NE   | NE                   |  |
| 1,2,4-trimethylbenzene  | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 6,900        | 6,900  | 81,000               |  |
| 1,2,3-trimethylbenzene  | NA        | NA  | NA        | NA        | NA        | NA            | NA        | NE           | NE   | NE                   |  |
| 1,3,5-trimethylbenzene  | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 6,900        | 6,900  | 81,000               |  |
| Vinyl chloride          | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 4.4          | 34   | 950                  |  |
| Xylenes, total          | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 25,000       | 20,000   | 560,000              |  |
| Anthracene              | ND        | ND  | 0.151     | ND        | ND        | ND            | ND        | 350,000      | 110,000  | >Max                 |  |
| Acenaphthene            | 0.00819   | ND  | 0.0688 J  | ND        | 0.00107 J | ND            | ND        | 70,000       | 21,000   | 590,000              |  |
| Acenaphthylene          | ND        | ND  | 0.0153 J  | ND        | ND        | ND            | ND        | NE           | NE   | NE                   |  |
| Benzo(a)anthracene      | 0.00112 J | ND  | 0.0249 J  | ND        | ND        | ND            | ND        | 21           | 170  | 4,800                |  |
| Benzo(a)pyrene          | ND        | ND  | ND        | ND        | ND        | ND            | ND        | 2.1          | 17   | 490                  |  |
| Benzo(b)fluoranthene    | ND        | ND  | 0.0734    | ND        | ND        | ND            | ND        | 21           | 170  | 4,900                |  |
| Benzo(g,h,i)perylene    | ND        | ND  | ND        | ND        | ND        | ND            | ND        | NE           | NE   | NE                   |  |
| Benzo(k)fluoranthene    | ND        | ND  | 0.00958 J | ND        | ND        | ND            | ND        | 210          | 1,700  | 49,000               |  |
| Chrysene                | 0.00167 J | ND  | 0.0114 J  | ND        | ND        | ND            | ND        | 2,100        | 17,000   | 490,000              |  |
| Dibenz(a,h)anthracene   | ND        | ND  | ND        | ND        | ND        | ND            | ND        | 2.1          | 17   | 490                  |  |
| Fluoranthene            | 0.0047 J  | ND  | 0.0166 J  | ND        | ND        | ND            | ND        | 30,000       | 10,000   | 280,000              |  |
| Fluorene                | 0.0625    | ND  | 0.0882    | ND        | ND        | ND            | ND        | 47,000       | 14,000   | 390,000              |  |
| Indeno(1,2,3-cd)pyrene  | ND        | ND  | ND        | ND        | ND        | ND            | ND        | 21           | 170  | 4,900                |  |
| Naphthalene             | ND        | ND  | ND        | ND        | 0.0026 J  | ND            | ND        | 23           | 580  | 16,000               |  |
| Phenanthrene            | ND        | ND  | 0.053 J   | ND        | ND        | ND            | ND        | NE           | NE   | NE                   |  |
| Pyrene                  | 0.0133    | ND  | 0.097     | ND        | ND        | ND            | ND        | 23,000       | 7,500  | 210,000              |  |
| 1-methylnaphthalene     | ND        | ND  | ND        | ND        | ND        | ND            | ND        | NE           | NE   | NE                   |  |
| 2-methylnaphthalene     | ND        | ND  | ND        | ND        | ND        | ND            | ND        | NE           | NE   | NE                   |  |
| 2-chloronaphthalene     | ND        | ND  | ND        | ND        | ND        | ND            | ND        | NE           | NE   | NE                   |  |
| Total PCBs              | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 0.59         | 4.9  | 140                  |  |
| Diesel-Range Organics   | 75        | 2.16 J                                      | 1,030     | NA        | NA        | NA            | NA        | 14,000       | 4,600  | >Max                 |  |
| Residual-Range Organics | 440       | 8.14 J                                      | 6,190     | NA        | NA        | NA            | NA        | 14,000       | 4,600  | >Max                 |  |
| Gasoline-Range Organics | NA        | NA  | NA        | NA        | NA        | NA            | NA        | 20,000       | 9,700  | >Max                 |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

- J: The identification of the analyte is acceptable; the reported value is an estimate.
- J3: The associated batch QC was outside the established quality control range for precision.
- V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

- >Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.
- **Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



#### Table 8: SUMMARY OF CHIP TRUCK GROUNDWATER CHEMICAL DATA

| Compound in Excavation  |     |                             |          |   |          |          |                                     |
|---|-----|-----------------------------|----------|---|----------|----------|-------------------------------------|
| Lef H2/W         CL H2/W         CL H2/W         CL H2/W         CL H2/W         CL H2/W         No         NA  |     | Compound                    |          | DEQ RBCs for Groundwater<br>in Excavation |          |          |                                     |
| Asenic         NA         NA <th< th=""><th></th><th></th><th>CT-142-W</th><th>CT-144-W</th><th>CT-151-W</th><th>CT-153-W</th><th>Construction &amp; Excavation<br/>Worker</th></th<> |     |                             | CT-142-W | CT-144-W                                  | CT-151-W | CT-153-W | Construction & Excavation<br>Worker |
| Image         NA   |     | Antimony                    | NA       | NA  | NA       | NA       |                                     |
| Continue         NA         <  |     | Arsenic                     | NA       | NA  | NA       | NA       | 6.3                                 |
| Open         NA         N  |     |                             |          |   |          |          |                                     |
| Open         NA         NA         NA         NA         NA         NA         NA           Isofa         NA         NA         NA         NA         NA         NA         NA           Silver         NA         NA         NA         NA         NA         NA         NA           Silver         NA         NA         NA         NA         NA         NA         NA           Tallar         NA         NA         NA         NA         NA         NA         NA           Action         NA         NA         NA         NA         NA         NA         NA           Action         NA         NA         NA         NA         NA         NA         NA           Record         NA         N   |     |                             |          |   |          |          |                                     |
| Main         NA         N  |     |                             |          |   |          |          |                                     |
| MA         NA         NA         NA         NA         NA         NA           Siler         NA         NA         NA         NA         NA         NA         NA           Siler         NA         NA         NA         NA         NA         NA         NA           Znic         NA         NA         NA         NA         NA         NA         NA           Mercay         NA         NA         NA         NA         NA         NA         NA           Accolein         NA         NA         NA         NA         NA         NA         NA         NA           Brancemen         NA         NA </td <td>als</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   | als |                             |          |   |          |          |                                     |
| SelemanNANANANANANABiberNANANANANANADataNANANANANANAZincNANANANANANAMecuyNANANANANANAKerolenNANANANANANAAcrobinNANANANANANAAcrobinNANANANANANABanzaceNANANANANANABrancickinosenetaneNANANANANABrancickinosenetaneNANANANANABrancickinosenetaneNANANANANABrancickinosenetaneNANANANANABrancickinosenetaneNANANANANABrancickinosenetaneNANANANANAChiorobarceNANANANANAChiorobarceNANANANANAChiorobarceNANANANANAChiorobarceNANANANANAChiorobarceNANANANANAChiorobarceNANANANANAChiorobarceNANANANANAChiorobarceNANANANANA<  | Met |                             |          |   |          |          |                                     |
| SilverNANANANANAThalliumNANANANANATaicNANANANANAMercuryNANANANANAAcenaNANANANANAAcenaNANANANANAAcenaNANANANANAAcenaNANANANANAAcenaNANANANANAAcenaNANANANANABernoteneseNANANANANABernoterneNANANANANABernoterneNANANANANABernoterneNANANANANABernoterneNANANANANANaNANANANANANaNANANANANANaNANANANANANaNANANANANANaNANANANANAChinordenereNANANANAChinordenereNANANANAChinordenereNANANANAChinordenereNANANANALibiticitoreoreneNANANANALibiticitoreoreneNANANANA  |     |                             |          |   |          |          |                                     |
| ZaneNANANANANAMetronyNANANANANAAcetonNANANANANAAccolanNANANANANAAccolanNANANANANAAccolantinicNANANANANABounochicometureNANANANANABounochicometureNANANANANABounochicometureNANANANANABounochicometureNANANANANABounochicometureNANANANANABounochicometureNANANANANABounochicometureNANANANANAChlorometureNANANANANAChlorometureNANANANANAChlorometureNANANANANAChlorometureNANANANANAChlorometureNANANANANAChlorometureNANANANANAChlorometureNANANANANALidelometureNANANANANALidelometureNANANANANALidelometureNANANANANALidelometureNANANANANA <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |     |                             |          |   |          |          |                                     |
| Mercury         NA         NA         NA         NA         NA         NA         NA           Actrolin         NA         NA         NA         NA         NA         NA         NA           Actrolini         NA         NA         NA         NA         NA         NA         NA           Bronzen         NA         NA         NA         NA         NA         NA         NA           Bronzolicomethane         NA         NA         NA         NA         NA         NA         NA           Bronzolicomethane         NA         NA         NA         NA         NA         NA         NA           National Scatter         NA         NA         NA         NA         NA         NA         NA           Bronzoliconethane         NA         NA         NA         NA         NA         NA         NA         NA           Sc fully Bourgene         NA   |     | Thallium                    | NA       | NA  | NA       | NA       | NE                                  |
| Mercury         NA         NA         NA         NA         NA         NA         NA           Actrolin         NA         NA         NA         NA         NA         NA         NA           Actrolini         NA         NA         NA         NA         NA         NA         NA           Bronzen         NA         NA         NA         NA         NA         NA         NA           Bronzolicomethane         NA         NA         NA         NA         NA         NA         NA           Bronzolicomethane         NA         NA         NA         NA         NA         NA         NA           National Scatter         NA         NA         NA         NA         NA         NA         NA           Bronzoliconethane         NA         NA         NA         NA         NA         NA         NA         NA           Sc fully Bourgene         NA   |     | Zinc                        | NA       | NA  | NA       | NA       | NE                                  |
| Actobie         NA         NA         NA         NA         NA         NA         NA           Acrolian         NA  |     |                             |          |   |          |          |                                     |
| Approx<br>BetzeneNANANANANANABetzeneNANANANANANABromoderanceNANANANANABromoderanceNANANANANABromoderanceNANANANANABromoderanceNANANANANABromoderanceNANANANANABromoderanceNANANANANABromoderanceNANANANANASchultbroeneNANANANANACalon tetachlorideNANANANANAChirorethroneeneNANANANANAChirorethroneeneNANANANANAChirorethroneeneNANANANANAChirorethraneNANANANANAChirorethraneNANANANANAChirorethraneNANANANANAChirorethraneNANANANANAL2-dhirorethraneNANANANANAL2-dhirorethraneNANANANANAL2-dhirorethraneNANANANANAL2-dhirorethraneNANANANANAL2-dhirorethraneNANANANANAL2-dhirore  |     |                             | NA       | NA  | NA       | NA       | NE                                  |
| Percence         NA         NA         NA         NA         NA         NA           Bronndelforemethane         NA         NA         NA         NA         NA         NA           Bronndelforemethane         NA         NA         NA         NA         NA         NA           Bronnethane         NA         NA         NA         NA         NA         NA           Natythenzene         NA         NA         NA         NA         NA         NA           Cafton tetracthoride         NA         NA         NA         NA         NA         NA           Chlorodhersene         NA         NA         NA         NA         NA         NA         NA           Chlorodhersene         NA         NA         NA         NA         NA         NA         NA           Chlorodhersene         NA         NA         NA         NA         NA         NA         NA         NA           Chlorodhersene         NA   |     | Acrolein                    |          |   |          |          |                                     |
| Bromokenzene         NA  |     | Acrylonitrile               | NA       | NA  | NA       | NA       | 0.25                                |
| RomodichloromethaneNANANANANABrannonethaneNANANANA1.2N-dutylbarazineNANANANANAN-butylbarazineNANANANASic- butylbarazineNANANANACation teractionideNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAChiorobarazineNANANANAL'AdforonobarazineNANANANAL'AdforonobarazineNANANANAL'AdforonobarazineNANANANAL'AdforonobarazineNANANANAL'AdforobarazineNANANANAL'AdforlonobarazineNANANANAL'AdforlonobarazineNANANANAL'AdforlonopopaneNANANANAL'AdforlonopopaneNANANANAL'AdforlonopopaneNANA <td< td=""><td></td><td>Benzene</td><td>NA</td><td>NA</td><td>NA</td><td>NA</td><td>1.8</td></td<>  |     | Benzene                     | NA       | NA  | NA       | NA       | 1.8                                 |
| Bromoform         NA   |     | Bromobenzene                | NA       | NA  | NA       | NA       | NE                                  |
| BromomethaneNANANANANANANAdul/benzeneNANANANANATert BuylbenzeneNANANANANACarbon tetachlorideNANANANANACarbon tetachlorideNANANANANAChiorobenzeneNANANANANAChiorodiforomonethaneNANANANANAChiorodifuronomethaneNANANANA0.61ChiorodifuraNANANANANA0.22ChiorodifuraNANANANANA0.72ChiorodifuraNANANANANA0.72ChiorodifuraNANANANANA0.72ChiorodifuraNANANANANA0.72ChiorodifuraNANANANANA0.721,2 dicinoxologneNANANANANANE1,2 dicinoxologneNANANANANANE1,2 dicinoxologneNANANANANANA1,2 dicinoxologneNANANANANA1,2 dicinoxologneNANANANANA1,2 dicinoxologneNANANANANA1,2 dicinoxologneNANANANANA1,2 dicinoxologneNANA  |     |                             |          |   |          |          |                                     |
| N-busylbanzene         NA  |     |                             |          |   |          |          |                                     |
| Sec barylbenzeneNANANANANATerf BuylbenzeneNANANANANACarbon tratealbairdeNANANANANAChlorodibornomethaneNANANANANAChlorodibornomethaneNANANANANAChlorodibornomethaneNANANANANAChlorodibornomethaneNANANANANAChlorodibaneNANANANANAANANANANANAAChlorodibaneNANANANAAChlorodibaneNANANANAAChlorodibaneNANANANAI.3dichlorobanzeneNANANANANADibronomethaneNANANANANAI.3dichlorobanzeneNANANANANAI.3dichlorobanzeneNANANANANAI.3dichlorodibaneNANANANANAI.3dichlorodibaneNANANANANAI.3dichlorodibaneNANANANANAI.3dichlorodibaneNANANANANAI.3dichlorodibaneNANANANANAI.3dichlorodibaneNANANANANAI.3dichlorodibaneNANANANANA <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |     |                             |          |   |          |          |                                     |
| IertBuylbenzene         NA   |     |                             |          |   |          |          |                                     |
| Cathon tetrachlorideNA <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>   |     |                             |          |   |          |          |                                     |
| ChlorodbronomettaneNANANANANANANANANAObjectChlorodbronomettaneNANANANANANA0.61ChlorodbraneNANANANANA0.72ChlorodbraneNANANANANA0.72ChlorodbreneNANANANANANA4 ChlorodbreneNANANANANA1.2 dibrono-3-chloropropaneNANANANA1.2 dibrono-thaneNANANANANADibronomethaneNANANANANADibronomethaneNANANANANADichlorodbrezeneNANANANANA1.3-dichloroberzeneNANANANANA1.4-dichloroberzeneNANANANANA1.4-dichloroberzeneNANANANANA1.4-dichloroberzeneNANANANANA1.4-dichloroberzeneNANANANANA1.4-dichloroberzeneNANANANANA1.4-dichloroberzeneNANANANANA1.4-dichloropetaneNANANANANA1.4-dichloropetaneNANANANANA1.4-dichloropeteneNANANANANA1.4-dichloropetene <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |     |                             |          |   |          |          |                                     |
| ChlorodibromomethaneNA <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>   |     |                             |          |   |          |          |                                     |
| ChloroschaneNAD.722.ChlorosthueneNA <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |     |                             |          |   |          |          |                                     |
| ChloroformNANANANANANANAChlorofolueneNANANANANAZ22-ChlorofolueneNANANANANANA1.2.dibromo-s-chloropropaneNANANANANA1.2.dibromo-s-chloropropaneNANANANANA1.2.dibromo-s-chloropropaneNANANANANA1.2.dibromo-s-chloropropaneNANANANANA1.2.dibromo-s-chloropropaneNANANANANA1.2.dibromo-s-chloropropaneNANANANANA1.3.dichloroberzeneNANANANANANA1.4.dichloroberzeneNANANANANANA1.4.dichloropethaneNANANANANANA1.1.dichloropethaneNANANANANANA1.1.dichloropethaneNANANANANANA1.1.dichloropethaneNANANANANANA1.1.dichloropethaneNANANANANANANA1.1.dichloropethaneNANANANANANANA1.1.dichloropethaneNANANANANANANA1.1.dichloropethaneNANANANANANANA1.1.dichloropethaneNANANA <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |     |                             |          |   |          |          |                                     |
| ChloromethaneNA <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>   |     |                             |          |   |          |          |                                     |
| 2-Chlorotoluene         NA         NA         NA         NA         NA           4-Chlorotoluene         NA         NA         NA         NA         NA           1,2-dibromo-5-chloropopane         NA         NA         NA         NA         NA           1,2-dibromo-5-chloropopane         NA         NA         NA         NA         NA           1,2-dichlorobenzene         NA         NA         NA         NA         NA           1,3-dichlorobenzene         NA         NA         NA         NA         NA           1,4-dichlorobenzene         NA         NA         NA         NA         NA           1,1-dichloroethane         NA         NA         NA         NA         NA           1,1-dichloroethane         NA         NA         NA         NA         NA           1,1-dichloroethane         NA         NA         NA         NA         NA           1,1-dichloroethene         NA         NA         NA         NA         NA           1,1-dichloropropane         NA         NA         NA         NA         NA           1,1-dichloropropane         NA         NA         NA         NA         NA  |     |                             |          |   |          |          |                                     |
| 4-Chlorotoluene         NA   |     |                             |          |   |          |          |                                     |
| 1,2-dibromorethane         NA  |     |                             |          |   |          |          |                                     |
| DibromomethaneNANANANANA1,3-dichlorobenzeneNANANANANA1,3-dichlorobenzeneNANANANANA1,4-dichlorobenzeneNANANANANA1,4-dichlorobenzeneNANANANANA1,4-dichlorobenzeneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroptopaneNANANANANA1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropa  |     | 1,2-dibromo-3-chloropropane | NA       | NA  | NA       | NA       | NE                                  |
| 1,2-dichlorobenzeneNANANANANA1,3-dichlorobenzeneNANANANANA1,4-dichlorobenzeneNANANANANA1,4-dichlorobenzeneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroetheneNANANANANA1,1-dichloroetheneNANANANANA1,1-dichloroptopaneNANANANANA1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANANE1,1-dichloropropaneNANANANANANE1,1-dichloropropaneNANANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANANE1,1-dichloropropaneNANANANA <t< td=""><td></td><td>1,2-dibromoethane</td><td>NA</td><td>NA</td><td>NA</td><td>NA</td><td>NE</td></t<>   |     | 1,2-dibromoethane           | NA       | NA  | NA       | NA       | NE                                  |
| 1,3-dichlorobenzeneNANANANANA1,4-dichlorobenzeneNANANANANAPichlorodifluoromethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANA1801,1-dichloropropaneNANANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA  |     | Dibromomethane              | NA       | NA  | NA       | NA       | NE                                  |
| 1,4-dichlorobenzene         NA         NA <td></td> <td>1,2-dichlorobenzene</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>37</td>  |     | 1,2-dichlorobenzene         | NA       | NA  | NA       | NA       | 37                                  |
| DichlorodifluoromethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroethaneNANANANANA1,1-dichloroetheneNANANANA18Trans-1,2-dichloroetheneNANANANANA1,2-dichloropopaneNANANANANA1,1-dichloropopaneNANANANANA1,1-dichloropopaneNANANANANE1,1-dichloropopaneNANANANANE1,1-dichloropopaneNANANANANE1,1-dichloropopaneNANANANANE1,1-dichloropopaneNANANANANE1,1-dichloropopaneNANANANANE1,1-dichloropopaneNANANANANE1,1-dichloropopaneNANANANANEDisopropyl etherNANANANANEEthylbenzeneNANANANANAIsopropylbenzeneNANANANAIsopropylbenzeneNANANANAANANANANANAIsopropylbenzeneNANANANAIsopropylbenzeneNANANANAIso   |     |                             |          |   |          |          | NE                                  |
| 1,1-dichloroethaneNANANANANA1,2-dichloroethaneNANANANANA1,2-dichloroetheneNANANANANACis-1,2-dichloroetheneNANANANA18Trans-1,2-dichloroetheneNANANANA1801,2-dichloroptopaneNANANANANA1,1-dichloropropaneNANANANA1,1-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropropaneNANANANA1,3-dichloropr  |     |                             |          |   |          |          |                                     |
| 1,2-dichloroethaneNANANANANA1,1-dichloroethaneNANANANAA41,1-dichloroethaneNANANANANATrans-1,2-dichloroethaneNANANANANA1,2-dichloroptopaneNANANANANA1,1-dichloroptopaneNANANANANA1,1-dichloroptopaneNANANANANA1,1-dichloroptopaneNANANANANA1,3-dichloroptopaneNANANANANA1,3-dichloroptopaneNANANANANE1,3-dichloroptopaneNANANANANE2,2-dichloroptopaneNANANANANE2,2-dichloroptopaneNANANANANE2,2-dichloroptopaneNANANANANE2,2-dichloroptopaneNANANANANE2,2-dichloroptopaneNANANANANE2,2-dichloroptopaneNANANANANE2,2-dichloroptopaneNANANANANE2,2-dichloroptopteneNANANANANA2,4-dichloroptopteneNANANANA2,4-dichloroethaneNANANANA2,4-dichloroptopteneNANANANA4Methylene chloride <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  |     |                             |          |   |          |          |                                     |
| 1,1-dichloroetheneNANANANANACis-1,2-dichloroetheneNANANANANATrans-1,2-dichloroetheneNANANANANA1,2-dichloroptopaneNANANANANA1,1-dichloroptopaneNANANANANA1,3-dichloroptopeneNANANANANE1,3-dichloroptopeneNANANANANE1,3-dichloroptopeneNANANANANETans-1,3-dichloroptopeneNANANANANE2,2-dichloroptopaneNANANANANE1-isoptopyl etherNANANANANEEthylbenzeneNANANANANEIsoptopylotueneNANANANANEP-isopropyltolueneNANANANANEP-isopropyltolueneNANANANANEVethyltert-butyl etherNANANANANENaptibaleneNANANANANANENaptibaleneNANANANANANENaptibaleneNANANANANANENaptibaleneNANANANANANENaptibaleneNANANANANANENaptibaleneNANANANANANE<   |     |                             |          |   |          |          |                                     |
| Cis-1,2-dichloroetheneNANANANANATrans-1,2-dichloroetheneNANANANANA1,2-dichloropropaneNANANANANA1,1-dichloropropaneNANANANANA1,1-dichloropropeneNANANANANE1,3-dichloropropeneNANANANANANE1,3-dichloropropeneNANANANANANETrans-1,3-dichloropropeneNANANANANE1,3-dichloropropeneNANANANANE2,2-dichloropropaneNANANANANE1,3-dichloropropeneNANANANANE1,3-dichloropropeneNANANANANE2,2-dichloropropaneNANANANANE1,1-stopropyl etherNANANANANE1sopropyl etherNANANANANA1sopropylbarzeneNANANANA2-butanone (Mek)NANANANAMethylene chlorideNANANANAMethylene chlorideNANANANAMethylene chlorideNANANANAMethylene chlorideNANANANANapropylbenzeneNANANANANapropylbenzeneNANANANA<  |     |                             |          |   |          |          |                                     |
| Trans-1,2-dichloroetheneNANANANANA1,2-dichloropropaneNANANANANA1,1-dichloropropaneNANANANANA1,3-dichloropropaneNANANANANA1,3-dichloropropaneNANANANANA1,3-dichloropropaneNANANANANA1,3-dichloropropaneNANANANANA2,2-dichloropropaneNANANANANA2,2-dichloropropaneNANANANANA2,2-dichloropropaneNANANANANA2,2-dichloropropaneNANANANANA2,2-dichloropropaneNANANANANA2,2-dichloropropaneNANANANANA1,3-bidadieneNANANANANAEthylbenzeneNANANANANAPisopropylbenzeneNANANANANAPisopropylbenzeneNANANANANAMethylerchlorideNANANANANAMethyleneNANANANANAMethyleneNANANANANAMethyleneNANANANANANaNANANANANANANaNANANANANA  |     |                             |          |   |          |          |                                     |
| 1/21/21/21/2NANANANANA1/1NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/3NANANANANANA1/4NANANANANANA1/4NANANANANANA1/4NANANANANANA1/4NANANANANANA1/1NANANANANANA1/1NANANANANANA1/1NANANANANANA1/1NANANANANANA1/1NANANANANANA1/1<  |     |                             |          |   |          |          |                                     |
| Yo1,1-dichloropropeneNANANANANANA1,3-dichloropropaneNANANANANANECis-1,3-dichloropropeneNANANANANANETrans-1,3-dichloropropeneNANANANANANE2,2-dichloropropaneNANANANANANE2,2-dichloropropaneNANANANANANEDi-isopropyl etherNANANANANANEEthylbenzeneNANANANANANEIsopropylenzeneNANANANANE2-butanone (Mek)NANANANANEArmethyl-2-pentanone (Mibk)NANANANANANANANANANANANaNANANANANANaNANANANANAAphthaleneNANANANANANaNANANANANANENaphthaleneNANANANANANANE1,1,2-tetrachloroethaneNANANANANANA1,1,2-tetrachloroethaneNANANANANA1,1,2-tetrachloroethaneNANANANANA1,1,2-tetrachloroethaneNANANANAS1,1,2-tetrachloroethan  |     |                             |          |   |          |          |                                     |
| Q1,3-dichloropropaneNANANANANANACis-1,3-dichloropropeneNANANANANATrans-1,3-dichloropropeneNANANANANA2,2-dichloropropaneNANANANANADi-isopropyl etherNANANANANEEthylbenzeneNANANANANANEIsopropylbenzeneNANANANANANEIsopropylbenzeneNANANANANANE2-butanone (Mek)NANANANANANEMethyl-2-pentanone (Mibk)NANANANANANEMethyl-1-2-pentanone (Mibk)NANANANANANANANANANANANANEStyreeNANANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANA1,1,2-tetrachloroethaneNANANANANA1,1,2-tetrachloroethaneNANANANANA1,1,2-tetrachloroethaneNANANANAStyreeTetrachloroethaneNANANANANAStyreeInt,1,2-tetrachloroethaneNANANANAStyreeTetrachloroethaneNANANA <t< td=""><td>S</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>   | S   |                             |          |   |          |          |                                     |
| Cis-1,3-dichloropropeneNANANANANATrans-1,3-dichloropropeneNANANANANA2,2-dichloropropaneNANANANANADi-isopropyl etherNANANANANAEthylbenzeneNANANANANAIsopropylbenzeneNANANANANAP-isopropylbenzeneNANANANANAP-isopropylbenzeneNANANANANE2-butanone (Mek)NANANANANANE4-methyl-2-pentanone (Mibk)NANANANANANEMethyl lett-butyl etherNANANANANAStyreneNANANANANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANA1,1,2-tetrachloroethaneNANANANAStyrene1,1,2-tetrachloroethaneNANANANANAStyrene1,1,2-tetrachloroethaneNANANANAStyrene1,1,2-tetrachloroethaneNANANANAStyrene1,1,2-tetrachloroethaneNANANANAStyrene1,1,2-tetrachloroethaneNANANANA<   | Ň   |                             |          |   |          |          |                                     |
| 2,2-dichloropropaneNANANANANADi-isopropyl etherNANANANANAEthylbenzeneNANANANANAHexachloro-1,3-butadieneNANANANANAIsopropylbenzeneNANANANANAP-isopropylbueneNANANANANAP-isopropylbueneNANANANANAAdethylene chlorideNANANANANAMethylene chlorideNANANANANAMethylene chlorideNANANANANAMethylene chlorideNANANANANAMethylene chlorideNANANANANAMethylene chlorideNANANANANAMethylene chlorideNANANANANAMethylene chlorideNANANANANAMethylene chlorideNANANANANAMethyleneNANANANANAMethyleneNANANANANANaphthaleneNANANANANANaNANANANANANaNANANANANANaNANANANANANaNANANANANANaNANA<  |     |                             |          |   |          |          |                                     |
| Di-isopropyl etherNANANANANAEthylbenzeneNANANANAA.5Hexachloro-1,3-butadieneNANANANANAIsopropylbenzeneNANANANAS1P-isopropylbenzeneNANANANANA2-butanone (Mek)NANANANANE4-methyl-2-pentanone (Mibk)NANANANANE4-methyl-2-pentanone (Mibk)NANANANANANaNANANANAG3NaphthaleneNANANANANEStyreneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANAS5TetrachloroetheneNANANANAA220  |     |                             | NA       | NA  | NA       | NA       | NE                                  |
| EthylbenzeneNANANANAA.5Hexachloro-1,3-butadieneNANANANANEIsopropylbenzeneNANANANAS1P-isopropyltolueneNANANANANE2-butanone (Mek)NANANANANEMethylene chlorideNANANANANE4-methyl-2-pentanone (Mibk)NANANANANEMethyl terl-butyl etherNANANANA63NaphthaleneNANANANANEStyreneNANANANANE1,1,2-tetrachloroethaneNANANANA1,1,2-tetrachloroethaneNANANANA1,1,2-trichlorotrifluoroethaneNANANAATetrachloroethaneNANANAATetrachloroethaneNANANAATolueneNANANANAA220   |     | 2,2-dichloropropane         | NA       | NA  | NA       | NA       | NE                                  |
| Hexachloro-1,3-butadieneNANANANANAIsopropylbenzeneNANANANAS1P-isopropyltolueneNANANANANA2-butanone (Mek)NANANANANE4-butanone (Mek)NANANANANE4-methyl-2-pentanone (Mibk)NANANANANE4-methyl-2-pentanone (Mibk)NANANANANEMethyl tert-butyl etherNANANANA63NaphthaleneNANANANA0.5N-propylbenzeneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-trichlorotrifluoroethaneNANANANAS5TetrachloroetheneNANANANA6TolueneNANANANA220  |     | Di-isopropyl ether          | NA       | NA  | NA       | NA       | NE                                  |
| IsopropylbenzeneNANANANAS1P-isopropyltolueneNANANANANE2-butanone (Mek)NANANANANEMethylene chlorideNANANANANE4-methyl-2-pentanone (Mibk)NANANANANEMethyl tert-butyl etherNANANANA63NaphthaleneNANANANA0.5N-propylbenzeneNANANANANEStyreneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-trichlorotrifluoroethaneNANANANAS5TetrachloroethaneNANANANA6TolueneNANANANA220  |     | Ethylbenzene                | NA       | NA  | NA       | NA       | 4.5                                 |
| P-isopropyltolueneNANANANANA2-butanone (Mek)NANANANANAMethylene chlorideNANANANANE4-methyl-2-pentanone (Mibk)NANANANANEMethyl tert-butyl etherNANANANA63NaphthaleneNANANANA0.5N-propylbenzeneNANANANANEStyreneNANANANANE1,1,2-tetrachloroethaneNANANANE1,1,2-tetrachloroethaneNANANANA1,1,2-trichlorotrifluoroethaneNANANATetrachloroetheneNANANAATolueneNANANANANANANANA220  |     |                             |          |   |          |          | NE                                  |
| 2-butanone (Mek)NANANANANEMethylene chlorideNANANANANE4-methyl-2-pentanone (Mibk)NANANANANE4-methyl-2-pentanone (Mibk)NANANANANEMethyl tert-butyl etherNANANANA63NaphthaleneNANANANA0.5N-propylbenzeneNANANANANEStyreneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-trichlorotrifluoroethaneNANANANASTetrachloroethaneNANANANA6TolueneNANANANA220   |     |                             |          |   |          |          |                                     |
| Methylene chlorideNANANANA4-methyl-2-pentanone (Mibk)NANANANANEMethyl tert-butyl etherNANANANA63NaphthaleneNANANANA63N-propylbenzeneNANANANA0.5StyreneNANANANA1701,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-trichlorotrifluoroethaneNANANANASTetrachloroetheneNANANANA6TolueneNANANANA220  |     |                             |          |   |          |          |                                     |
| 4-methyl-2-pentanone (Mibk)NANANANANEMethyl tert-butyl etherNANANANA63NaphthaleneNANANANA0.5N-propylbenzeneNANANANANEStyreneNANANANA1701,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANAASTetrachloroethaneNANANANA6TolueneNANANANA220   |     |                             |          |   |          |          |                                     |
| Methyl tert-butyl etherNANANASANaphthaleneNANANANA0.5N-propylbenzeneNANANANANEStyreneNANANANA1701,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANAS1,1,2-tetrachloroethaneNANANAASTetrachloroethaneNANANAA6TolueneNANANANA220   |     | ,                           |          |   |          |          |                                     |
| NaphthaleneNANANANA0.5N-propylbenzeneNANANANANEStyreneNANANANA1701,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-tetrachloroethaneNANANANANE1,1,2-trichlorotrifluoroethaneNANANANASTetrachloroetheneNANANANA6TolueneNANANANA220   |     |                             |          |   |          |          |                                     |
| N-propylbenzeneNANANANAStyreneNANANANA1701,1,2-tetrachloroethaneNANANANANE1,1,2,2-tetrachloroethaneNANANANANE1,1,2-trichlorotrifluoroethaneNANANANASA1,1,2-trichlorotrifluoroethaneNANANAASATetrachloroetheneNANANANA6TolueneNANANANA220  |     |                             |          |   |          |          |                                     |
| StyreneNANANANA1,1,2-tetrachloroethaneNANANANA1,1,2,2-tetrachloroethaneNANANANA1,1,2,2-tetrachloroethaneNANANANA1,1,2-trichlorotrifluoroethaneNANANANA1,1,2-trichloroethaneNANANASTetrachloroethaneNANANANA6TolueneNANANANA220  |     |                             |          |   |          |          |                                     |
| 1,1,2-tetrachloroethaneNANANANE1,1,2,2-tetrachloroethaneNANANANANE1,1,2-trichlorotrifluoroethaneNANANANASTetrachloroetheneNANANANA6TolueneNANANANA220   |     | /                           |          |   |          |          |                                     |
| 1,1,2,2-tetrachloroethaneNANANANE1,1,2-trichlorotrifluoroethaneNANANANA>STetrachloroetheneNANANANA6TolueneNANANANA220   |     |                             |          |   |          |          |                                     |
| 1,1,2-trichlorotrifluoroethaneNANANA>STetrachloroetheneNANANANA6TolueneNANANANA220  |     |                             |          |   |          |          |                                     |
| TetrachloroetheneNANANA6TolueneNANANANA220  |     |                             |          |   |          |          |                                     |
| Toluene NA NA NA NA 220   |     |                             |          |   |          |          |                                     |
|   |     |                             |          |   |          |          |                                     |
|   |     | 1,2,3-trichlorobenzene      |          | NA  |          |          | NE                                  |



#### Table 8: SUMMARY OF CHIP TRUCK GROUNDWATER CHEMICAL DATA

|      |                         | Concentration (mg/l) |   |                   |                   |                                     |  |  |  |
|------|-------------------------|----------------------|---|-------------------|-------------------|-------------------------------------|--|--|--|
|      | Compound                |                      | DEQ RBCs for Groundwater<br>in Excavation |                   |                   |                                     |  |  |  |
|      |                         | CT-142-W             | CT-144-W                                  | CT-151-W          | CT-153-W          | Construction & Excavation<br>Worker |  |  |  |
|      | 1,2,4-trichlorobenzene  | NA                   | NA  | NA                | NA                | NE                                  |  |  |  |
|      | 1,1,1-trichloroethane   | NA                   | NA  | NA                | NA                | 1,100                               |  |  |  |
|      | 1,1,2-trichloroethane   | NA                   | NA  | NA                | NA                | 0.049                               |  |  |  |
|      | Trichloroethene         | NA                   | NA  | NA                | NA                | 0.43                                |  |  |  |
|      | Trichlorofluoromethane  | NA                   | NA  | NA                | NA                | 160                                 |  |  |  |
|      | 1,2,3-trichloropropane  | NA                   | NA  | NA                | NA                | NE                                  |  |  |  |
|      | 1,2,4-trimethylbenzene  | NA                   | NA  | NA                | NA                | 6                                   |  |  |  |
|      | 1,2,3-trimethylbenzene  | NA                   | NA  | NA                | NA                | NE                                  |  |  |  |
|      | 1,3,5-trimethylbenzene  | NA                   | NA  | NA                | NA                | 8                                   |  |  |  |
|      | Vinyl chloride          | NA                   | NA  | NA                | NA                | 0.96                                |  |  |  |
|      | Xylenes, total          | NA                   | NA  | NA                | NA                | 23                                  |  |  |  |
|      | Anthracene              | 0.000186             | ND  | ND                | ND                | >\$                                 |  |  |  |
|      | Acenaphthene            | 0.000232             | 0.0000384 J                               | ND                | 0.0000119 J       | >S                                  |  |  |  |
|      | Acenaphthylene          | ND                   | ND  | ND                | ND                | NE                                  |  |  |  |
|      | Benzo(a)anthracene      | ND                   | ND  | ND                | ND                | >S                                  |  |  |  |
|      | Benzo(a)pyrene          | ND                   | ND  | ND                | ND                | >\$                                 |  |  |  |
|      | Benzo(b)fluoranthene    | ND                   | ND  | ND                | ND                | > S                                 |  |  |  |
|      | Benzo(g,h,i)perylene    | ND J3                | 0.00000854 B J J3                         | 0.00000231 B J J3 | 0.00000401 B J J3 | NE                                  |  |  |  |
|      | Benzo(k)fluoranthene    | ND                   | ND  | ND                | ND                | >S                                  |  |  |  |
|      | Chrysene                | ND                   | ND  | ND                | ND                | >S                                  |  |  |  |
| PAHs | Dibenz(a,h)anthracene   | ND J3                | ND J3                                     | ND J3             | ND J3             | > S                                 |  |  |  |
| С.   | Fluoranthene            | 0.0000225 J          | ND  | ND                | ND                | >\$                                 |  |  |  |
|      | Fluorene                | 0.00158              | 0.000128                                  | ND                | 0.000012 J        | >S                                  |  |  |  |
|      | Indeno(1,2,3-cd)pyrene  | ND J3                | ND J3                                     | ND J3             | ND J3             | >\$                                 |  |  |  |
|      | Naphthalene             | 0.0000434            | ND  | 0.0000241 J       | 0.0000229 J       | 0.5                                 |  |  |  |
|      | Phenanthrene            | ND                   | ND  | 0.0000854 J       | 0.00000963 J      | NE                                  |  |  |  |
|      | Pyrene                  | 0.0000495 J          | 0.0000136 J                               | ND                | ND                | > S                                 |  |  |  |
|      | 1-methylnaphthalene     | 0.0000196 J          | ND  | ND                | ND                | NE                                  |  |  |  |
|      | 2-methylnaphthalene     | 0.0000185 J          | ND  | ND                | ND                | NE                                  |  |  |  |
|      | 2-chloronaphthalene     | ND                   | ND  | ND                | ND                | NE                                  |  |  |  |
|      | Diesel-Range Organics   | 1.32                 | NA  | NA                | NA                | >S                                  |  |  |  |
|      | Residual-Range Organics | 1.98                 | NA  | NA                | NA                | >\$                                 |  |  |  |
|      | Gasoline-Range Organics | NA                   | NA  | NA                | NA                | 14                                  |  |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the RBC for groundwater in excavation for the construction and excavation worker receptor scenari



# Table 9: SUMMARY OF HOG FUEL HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

|  |  | Concentration (mg/kg)      |  |              |                 |  |  |
|--|--|----------------------------|--|--------------|-----------------|--|--|
|  | Compound   | Hog Fuel<br>Hydraulic Lift | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |              |                 |  |  |
|  |  | HF-137-16                  | Contact, and Inhalation<br>Construction Excava<br>Occupational |              |                 |  |  |
|  | Antino and   |                            |  | Worker       | Worker          |  |  |
|  | Antimony<br>Arsenic                                    | NA                         | NE<br>1.9  | NE<br>15     | NE<br>420       |  |  |
|  | Beryllium  | NA                         | 2,300  | 700          | 19,000          |  |  |
|  | Cadmium  | NA                         | 1,100  | 350          | 9,700           |  |  |
|  | Chromium   | NA                         | 6.3  | 49           | 1400            |  |  |
|  | Copper   | NA                         | 47,000   | 14,000       | 390,000         |  |  |
|  | Lead   | NA                         | 800  | 800          | 800             |  |  |
|  | Nickel   | NA                         | 22,000   | 7,000        | 190,000         |  |  |
|  | Selenium   | NA                         | NE   | NE           | NE              |  |  |
|  | Silver   | NA                         | 5,800  | 1,800        | 49,000          |  |  |
|  | Thallium   | NA                         | NE   | NE           | NE              |  |  |
|  | Zinc   | NA                         | NE   | NE           | NE              |  |  |
|  | Mercury  | NA                         | 350  | 110          | 2,900           |  |  |
|  | Acetone  | NA                         | NE   | NE<br>10     | NE              |  |  |
|  | Acrylonitrile<br>Benzene                               | NA<br>NA                   | 4 37   | 40<br>380    | 1,100<br>11,000 |  |  |
|  | Bromobenzene   | NA                         | NE   | NE           | NE              |  |  |
|  | Bromodichloromethane                                   | NA                         | 15   | 230          | 6,300           |  |  |
|  | Bromoform  | NA                         | 260  | 2,700        | 74,000          |  |  |
|  | Bromomethane   | NA                         | 750  | 370          | 10,000          |  |  |
|  | N-butylbenzene   | NA                         | NE   | NE           | NE              |  |  |
|  | Sec-butylbenzene                                       | NA                         | NE   | NE           | NE              |  |  |
|  | Tert-Butylbenzene                                      | NA                         | NE   | NE           | NE              |  |  |
|  | Carbon tetrachloride                                   | NA                         | 34   | 320          | 8,900           |  |  |
|  | Chlorobenzene  | NA                         | 8,700  | 4,700        | 130,000         |  |  |
|  | Chlorodibromomethane                                   | NA                         | 17   | 210          | 5,800           |  |  |
|  | Chloroethane   | NA                         | NE   | NE           | NE              |  |  |
|  | Chloroform<br>Chloromethane                            | NA                         | 26   | 410          | 11,000          |  |  |
|  | 2-Chlorotoluene  | NA<br>NA                   | 25,000<br>NE   | 25,000<br>NE | 700,000<br>NE   |  |  |
|  | 4-Chlorotoluene  | NA                         | NE   | NE           | NE              |  |  |
|  | 1,2-dibromo-3-chloropropane                            | NA                         | NE   | NE           | NE              |  |  |
|  | 1,2-dibromoethane                                      | NA                         | 0.73   | 9            | 250             |  |  |
|  | Dibromomethane   | NA                         | NE   | NE           | NE              |  |  |
|  | 1,2-dichlorobenzene                                    | NA                         | 36,000   | 20,000       | 560,000         |  |  |
|  | 1,3-dichlorobenzene                                    | NA                         | NE   | NE           | NE              |  |  |
|  | 1,4-dichlorobenzene                                    | NA                         | 64   | 1,300        | 36,000          |  |  |
|  | Dichlorodifluoromethane                                | NA                         | NE   | NE           | NE              |  |  |
|  | 1,1-dichloroethane                                     | NA                         | 260  | 3,200        | 89,000          |  |  |
|  | 1,2-dichloroethane                                     | NA                         | NE   | NE           | NE              |  |  |
|  | 1,1-dichloroethene                                     | NA                         | 29,000   | 13,000       | 370,000         |  |  |
|  | Cis-1,2-dichloroethene                                 | NA                         | 2,300  | 710          | 20,000          |  |  |
|  | Trans-1,2-dichloroethene<br>1,2-dichloropropane        | NA<br>NA                   | 23,000<br>NE   | 7,100<br>NE  | 200,000<br>NE   |  |  |
|  | 1,1-dichloropropene                                    | NA                         | NE   | NE           | NE              |  |  |
|  | 1,3-dichloropropane                                    | NA                         | NE   | NE           | NE              |  |  |
|  | Cis-1,3-dichloropropene                                | NA                         | NE   | NE           | NE              |  |  |
|  | Trans-1,3-dichloropropene                              | NA                         | NE   | NE           | NE              |  |  |
|  | 2,2-dichloropropane                                    | NA                         | NE   | NE           | NE              |  |  |
|  | Di-isopropyl ether                                     | NA                         | NE   | NE           | NE              |  |  |
|  | Ethylbenzene   | NA                         | 150  | 1,700        | 49,000          |  |  |
|  | Hexachloro-1,3-butadiene                               | NA                         | NE   | NE           | NE              |  |  |
|  | Isopropylbenzene                                       | NA                         | 57,000   | 27,000       | 750,000         |  |  |
|  | P-isopropyltoluene                                     | NA                         | NE   | NE           | NE              |  |  |
|  | 2-butanone (Mek)                                       | NA                         | NE   | NE           | NE              |  |  |
|  | Methylene chloride<br>4-methyl-2-pentanone (Mibk)      | NA<br>NA                   | NE<br>NE   | NE<br>NE     | NE<br>NE        |  |  |
|  | 4-metnyi-2-pentanone (MIDK)<br>Methyl tert-butyl ether | NA                         | 1,100  | 12,000       | 320,000         |  |  |
|  | Naphthalene  | NA                         | 23   | 580          | 16,000          |  |  |
|  | N-propylbenzene  | NA                         | NE   | NE           | NE              |  |  |
|  | Styrene  | NA                         | 130,000  | 56,000       | >Max            |  |  |
|  | 1,1,1,2-tetrachloroethane                              | NA                         | NE   | NE           | NE              |  |  |
|  | 1,1,2,2-tetrachloroethane                              | NA                         | NE   | NE           | NE              |  |  |
|  | 1,1,2-trichlorotrifluoroethane                         | NA                         | NE   | NE           | NE              |  |  |
|  | Tetrachloroethene                                      | NA                         | 1,000  | 1,800        | 50,000          |  |  |
|  | Toluene  | NA                         | 88,000   | 28,000       | 770,000         |  |  |
|  | 1,2,3-trichlorobenzene                                 | NA                         | NE   | NE           | NE              |  |  |
|  | 1,2,4-trichlorobenzene                                 | NA                         | NE   | NE           | NE              |  |  |



#### Table 9: SUMMARY OF HOG FUEL HYDRAULIC LIFT AREA SOIL CHEMICAL DATA

|      |                         | Concentration (mg/kg)                        |              |                         |                      |  |  |  |  |
|------|-------------------------|--|--------------|-------------------------|----------------------|--|--|--|--|
|      |                         | Hog Fuel DEQ RBCs for Soil Ingestion, Dermal |              |                         |                      |  |  |  |  |
|      | Compound                | Hydraulic Lift                               | Conta        | Contact, and Inhalation |                      |  |  |  |  |
|      |                         | HF-137-16                                    | Occupational | Construction<br>Worker  | Excavation<br>Worker |  |  |  |  |
|      | 1,1,1-trichloroethane   | NA   | 870,000      | 470,000                 | >Max                 |  |  |  |  |
|      | 1,1,2-trichloroethane   | NA   | 26           | 54                      | 1,500                |  |  |  |  |
|      | Trichloroethene         | NA   | 51           | 130                     | 3,700                |  |  |  |  |
|      | Trichlorofluoromethane  | NA   | 130,000      | 69,000                  | >Max                 |  |  |  |  |
|      | 1,2,3-trichloropropane  | NA   | NE           | NE                      | NE                   |  |  |  |  |
|      | 1,2,4-trimethylbenzene  | NA   | 6,900        | 6,900                   | 81,000               |  |  |  |  |
|      | 1,2,3-trimethylbenzene  | NA   | NE           | NE                      | NE                   |  |  |  |  |
|      | 1,3,5-trimethylbenzene  | NA   | 6,900        | 6,900                   | 81,000               |  |  |  |  |
|      | Vinyl chloride          | NA   | 4.4          | 34                      | 950                  |  |  |  |  |
|      | Xylenes, total          | NA   | 25,000       | 20,000                  | 560,000              |  |  |  |  |
|      | Anthracene              | ND   | 350,000      | 110,000                 | >Max                 |  |  |  |  |
|      | Acenaphthene            | ND   | 70,000       | 21,000                  | 590,000              |  |  |  |  |
|      | Acenaphthylene          | ND   | NE           | NE                      | NE                   |  |  |  |  |
|      | Benzo(a)anthracene      | ND   | 21           | 170                     | 4,800                |  |  |  |  |
|      | Benzo(a)pyrene          | ND   | 2.1          | 17                      | 490                  |  |  |  |  |
|      | Benzo(b)fluoranthene    | ND   | 21           | 170                     | 4,900                |  |  |  |  |
|      | Benzo(g,h,i)perylene    | ND   | NE           | NE                      | NE                   |  |  |  |  |
|      | Benzo(k)fluoranthene    | ND   | 210          | 1,700                   | 49,000               |  |  |  |  |
| Ś    | Chrysene                | ND   | 2,100        | 17,000                  | 490,000              |  |  |  |  |
| PAHs | Dibenz(a,h)anthracene   | ND   | 2.1          | 17                      | 490                  |  |  |  |  |
| д_   | Fluoranthene            | ND   | 30,000       | 10,000                  | 280,000              |  |  |  |  |
|      | Fluorene                | ND   | 47,000       | 14,000                  | 390,000              |  |  |  |  |
|      | Indeno(1,2,3-cd)pyrene  | ND   | 21           | 170                     | 4,900                |  |  |  |  |
|      | Naphthalene             | ND   | 23           | 580                     | 16,000               |  |  |  |  |
|      | Phenanthrene            | 0.000756 J                                   | NE           | NE                      | NE                   |  |  |  |  |
|      | Pyrene                  | ND   | 23,000       | 7,500                   | 210,000              |  |  |  |  |
|      | 1-methylnaphthalene     | ND   | NE           | NE                      | NE                   |  |  |  |  |
|      | 2-methylnaphthalene     | ND   | NE           | NE                      | NE                   |  |  |  |  |
|      | 2-chloronaphthalene     | ND   | NE           | NE                      | NE                   |  |  |  |  |
|      | Total PCBs              | NA   | 0.59         | 4.9                     | 140                  |  |  |  |  |
|      | Diesel-Range Organics   | ND   | 14,000       | 4,600                   | >Max                 |  |  |  |  |
|      | Residual-Range Organics | ND   | 14,000       | 4,600                   | >Max                 |  |  |  |  |
|      | Gasoline-Range Organics | NA   | 20,000       | 9,700                   | >Max                 |  |  |  |  |
|      |                         | •  | •            |                         |                      |  |  |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit. NA: NA: Compound not analyzed for this sample.

J: The identification of the analyte is acceptable; the reported value is

J3: The associated batch QC was outside the established quality contrc

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor



## Table 10: SUMMARY OF HOG FUEL GROUNDWATER CHEMICAL DATA

| Formula         Head Groundwater<br>Sample         BQ BRCs for Consumbater<br>Sample           Winner         HF-137-200         Construction & Executation<br>Worker           Amenic         NA         NE           Amenic         NA         0.1           Beryllum         NA         0.3           Chronin         NA         0.3           Chronin         NA         0.3           Chronin         NA         3.0           Chronin         NA         5.400           Chronin         NA         5.400           Chronin         NA         5.400           Chronin         NA         5.400           Selenin         NA         5.400           Tallium         NA         1.000           Tallium         NA         5.400           Tallium         NA         <   |     |                         | Concentration (mg/L) |                           |  |  |  |  |
|--|-----|-------------------------|----------------------|---------------------------|--|--|--|--|
| Image: Product |     | Compound                | _                    |                           |  |  |  |  |
| Antimony         NA         NRC           Assenic         NA         6.3           Beryllum         NA         6.3           Beryllum         NA         2.0           Coper         NA         9.4           Selenium         NA         9.4           Selenium         NA         9.4           Siker         NA         NE           Zinc         NA         NE           Zinc         NA         NE           Actrolein         NA         NE           Actrolein         NA         NE           Bromodenzene         NA         NE           Secbulyborzene         NA         NE           Chorodbromethane         NA         NE           Chorodbromomethane         NA   |     | Compound                |                      | Construction & Excavation |  |  |  |  |
| Asenic         NA         6.3           Berlum         NA         270           Cadmium         NA         270           Cadmium         NA         9.4           Copper         NA         5.400           Lad         NA         9.4           Nickal         NA         9.4           Silver         NA         NC           Thullum         NA         NE           Silver         NA         NE           Thullum         NA         NE           Macone         NA         NE           Accrolein         NA         NE           Accrolein         NA         NE           Accrolein         NA         NE           Bromoderichoromethane         NA         NE           Bromoderichoromethane         NA         NE           Bromoderichoromethane         NA         NE           Tert Burylbenzene         NA         NE           Cathoroterachoride         NA         NE           Chorosothane         NA         NE           Chorosothane         NA         NE           Chorosothane         NA         NE           Chorosoth  | _   | Antimony                |                      |                           |  |  |  |  |
| Cadmium         NA         130           Copper         NA         9.4           Selenium         NA         9.4           Silver         NA         NF           Juice         NA         NF           Mercury         NA         9.5           Accoloin         NA         NE           Accoloin         NA         0.25           Bromodenzene         NA         1.8           Bromodichloromethane         NA         0.45           Bromodichloromethane         NA         1.4           Bromodifiance         NA         NE           Schuylbenzene         NA         NE           Schuylbenzene         NA         NE           Choroboursene         NA         1.8           Choroboursene         NA         1.8           Choroboursene         NA         1.8           Choroboursene         NA         1.8           Choroboursene         NA         1.8 <t< td=""><td></td><td></td><td></td><td></td></t<>   |     |                         |                      |                           |  |  |  |  |
| ChromiumNA9.4SoperNA5.400LadNA>5NickelNA>5SilverNANESilverNANEThalliumNANETaineNANEMercuryNA>5AcatoneNANEAcatoneNANEAcatoneNANEAcatoneNANEAcatoneNANEAcatoneNANEAcatoneNANEBenzeneNA0.25BerzeneNA1.4BromodichoromethaneNA1.4BromodinaneNA1.4NatylbenzeneNA1.4NatylbenzeneNANESer-butylbenzeneNANEChlorobetaneNANEChlorobetaneNA0.61ChlorobetaneNANEChlorobetaneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNANEJ.dichorobenzeneNA <td rowspan="2"></td> <td>Beryllium</td> <td>NA</td> <td>270</td>  |     | Beryllium               | NA                   | 270                       |  |  |  |  |
| CopperNA5,400LoadNA>5NickelNA>5SeleniumNANESilverNANEZincNANEZincNANEZincNANEAcroleinNANEAcroleinNANEAcroleinNANEAcroleinNANEAcroleinNANEAcroleinNA0.25BromobenzeneNA1.8BromodichloromethaneNA1.4BromodienzeneNA1.4BromodienzeneNA1.4BromodienzeneNANEEcobaylibenzeneNANECabon tetrachlorideNA1.8ChloroobenzeneNA1.8ChloroobenzeneNANEChloroobenzeneNA1.8ChloroobenzeneNA2.400ChloroobenzeneNA2.20ChloroobenzeneNANE1,2 dibromoethaneNANE1,2 dibromoethaneNANE1,2 dibromoethaneNANE1,2 dichloroobenzeneNANE1,2 dichloroobenzeneNANE1,2 dichloroobenzeneNANE1,2 dichloroobenzeneNANE1,2 dichloroobenzeneNANE1,2 dichloroobenzeneNANE1,2 dichloroobenzeneNANE1,2 dichloroobenzeneNANE1,2   |     | Cadmium                 | NA                   | 130                       |  |  |  |  |
| YorTeadNA> 55ScheniumNA> 55ScheniumNANESilverNA1,100TalliumNANEZincNANEZincNANEMercuryNA> 55AcetoneNANEAcryfonitrileNA0.25BenzeneNA1.8BromochonzeneNA1.8BromochonzeneNA1.4BromochonzeneNA1.4BromochonzeneNANEScottpibenzeneNANEScottpibenzeneNANECarbon tetachlorideNA1.6ChlorobenzeneNA1.8ChlorobenzeneNANETet-ButylbenzeneNA1.6ChlorobenzeneNA1.6ChlorobenzeneNA1.8ChlorobenzeneNA1.6ChlorobenzeneNA1.6ChlorobenzeneNA1.6ChlorobenzeneNANE1,2 dichlorobenzeneNANE1,2 dichlorobenzeneNA<   |     |                         | · ·                  | -                         |  |  |  |  |
| Name         Name         Discr           Selenium         NA         NF           Silver         NA         1,100           Thallium         NA         NE           Zinc         NA         NE           Mercury         NA         >S5           Acrolein         NA         NE           Acrolein         NA         NE           Acrolein         NA         NE           Benzene         NA         1.8           Bromodichoromethane         NA         NE           Bromoform         NA         1.4           Bromoform         NA         1.6           Chloroblezene         NA         1.6           Chloroblezene         NA         1.6           Chloroblezene         NA         1.6           Chloroblezene         NA         NE           1.2-dibromo-3-chloropropane         NA         NE           1.2  | als |                         |                      |                           |  |  |  |  |
| Selenium         NA         NE           Silver         NA         1,100           Tallium         NA         NE           Zinc         NA         NE           Zinc         NA         NE           Mercury         NA         SS           Acrolein         NA         NE           Acrolein         NA         O.25           Bromobenzene         NA         1.8           Bromobenzene         NA         1.8           Bromobenzene         NA         1.2           Neutylbenzene         NA         NE           Sechutylbenzene         NA         NE           Carbon tetrachloride         NA         NE           Chlorobenzene         NA         1.0           Chlorobenzene         NA         NE           J.2dibromo-schlane         NA         NE           J.2dibromo-schlane         NA         NE           J.2dichlorobenzene         NA         NE  | Met |                         |                      | -                         |  |  |  |  |
| ThalliumNANEZincNANEMercuryNA>5AcetoneNANEAcetoneNANEAcroleinNANEAcroleinNA0.25BenzeneNA1.8BromodenzeneNANEBromodenzeneNANEBromodenzeneNA1.4BromodenzeneNA1.4BromodenzeneNANEBromodenzeneNANEBromodentaneNANEBromodentaneNANECarbon tetrachlorideNANECarbon tetrachlorideNA1.8ChlorodibranomethaneNA0.61ChlorodibraneNA2.400ChlorodibraneNA2.400ChlorodibraneNANE2.ChlorotolueneNANE1.2.dibrono-3-chloropropaneNANE1.2.dichlorobenzeneNANE1.2.dichlorobenzeneNANE1.2.dichlorobenzeneNANE1.2.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichloropropaneNANE1.2.dichloropenzeneNANE1.3.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE <trr< td=""><td></td><td></td><td></td><td></td></trr<>   |     |                         |                      |                           |  |  |  |  |
| ZincNANEMercuryNA>5ActoleNANEAcroleinNANEAcroleinNA0.25BenzeneNA1.8BromobenzeneNA0.45BromodichloromethaneNA0.45BromodichloromethaneNA1.4BromodichloromethaneNA1.4BromodichloromethaneNA1.4BromodichloromethaneNA1.4BromodichloromethaneNANESec-butylbenzeneNANECarbon tetrachlorideNA1.8ChoroberzeneNA10ChloroberzeneNA0.61ChloroberzeneNA2.400ChloromethaneNA2.22.ChlorotolueneNANE1.2.dibromo-3-chloropropaneNANE1.2.dibromoethaneNANE1.2.dichlorobenzeneNANE1.2.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.1.dicklororethaneNANE1.1.dickloropenpaneNANE1.1.dickloropenpaneNANE1.1.dickloropenpaneNANE1.1.dickloropenpaneNANE1.1.dickloropenpaneNANE1.1.dickloropenpaneNANE1.1.dickloropenpaneNANE1.1.dickloropenpaneNANE<  |     | Silver                  | NA                   | 1,100                     |  |  |  |  |
| MercuryNA> SActoneNANEAcroleinNANEAcroleinNA0.25BenzeneNA1.8BromobenzeneNANABromochioromethaneNA0.45BromochioromethaneNA1.4BromochioromethaneNA1.4BromochioromethaneNA1.4BromochioromethaneNANESec-butylbenzeneNANECarbon tetrachlorideNA1.8ChlorobenzeneNA1.0ChlorobenzeneNA1.0ChlorobenzeneNA0.61ChlorobenzeneNA2.22-ChlorotlueneNA0.72ChlorobenzeneNANE1,2-dibromo-3-chloropropaneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE1,1-dichloropenzeneNANE </td <td></td> <td>Thallium</td> <td>NA</td> <td>NE</td>   |     | Thallium                | NA                   | NE                        |  |  |  |  |
| AcetoneNANEAcroleinNANFAcrylonitrileNA0.25BenzeneNA1.8BromodichloromethaneNA0.45BromodichloromethaneNA14BromonethaneNA1.2NbutylbenzeneNANEEc-ButylbenzeneNANECarbon tetrachlorideNANECarbon tetrachlorideNA1.8ChlorodibromomethaneNA1.8ChlorodibromomethaneNA0.61ChlorodibromomethaneNA0.61ChlorodibromomethaneNA2.2ChlorodibromomethaneNANE1.2 dibromo-3-chloropaneNANE1.2 dibromo-3-thoropaneNANE1.2 dibromo-3-thoropaneNANE1.2 dichlorobenzeneNANE1.2 dichlorobenzeneNANE1.2 dichlorobenzeneNANE1.2 dichlorobenzeneNANE1.4 dichlorobenzeneNANE1.4 dichlorobenzeneNANE1.4 dichlorobenzeneNANE1.4 dichlorobenzeneNANE1.4 dichloropethaneNANE1.4 dichloropethaneNANE1.4 dichloropetheneNANE1.4 dichloropetheneNANE1.4 dichloropetheneNANE1.4 dichloropetheneNANE1.4 dichloropropaneNANE1.4 dichloropropaneNANE<  |     | Zinc                    | NA                   | NE                        |  |  |  |  |
| AcroleinNANEAcrylonitrileNA0.25BenzeneNA1.8BromodichloromethaneNANEBromodichloromethaneNA0.45BromodichloromethaneNA1.4BromodichloromethaneNA1.4BromodichloromethaneNA1.4BromonethaneNANEScobutylbenzeneNANECarbon tetrachlorideNA1.8ChlorobenzeneNA1.0ChlorobenzeneNA0.61ChlorobethaneNA22ChlorothaneNANE1,2-dibromethaneNANE1,2-dibromethaneNANE1,2-dibromethaneNANE1,2-dichloropopaneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE1,2-dichloropheneNANE <td></td> <td>Mercury</td> <td>NA</td> <td>&gt;S</td>   |     | Mercury                 | NA                   | >S                        |  |  |  |  |
| Acrylonitrile         NA         0.25           Benzene         NA         1.8           Bromodchloromethane         NA         0.45           Bromodchloromethane         NA         1.4           Bromondchloromethane         NA         1.4           Bromondchloromethane         NA         1.1           Nbutylbenzene         NA         NE           Tert-Butylbenzene         NA         1.8           Chlorobenzene         NA         1.0           Chlorobenzene         NA         0.61           Chlorobenzene         NA         0.61           Chloromethane         NA         2.2           Chloromethane         NA         0.72           Chloromethane         NA         0.72           Chlorobenzene         NA         NE           1,2-dibromo-3-chloropropane         NA         NE           1,2-dibromo-3-chloropropane         NA         NE           1,2-dichlorobenzene         NA         NE           1,2-dichlorobenzene         NA         NE           1,1-dichloropethane         NA         NE           1,1-dichloropethane         NA         NE           1,1-dichloropethane         N   |     |                         | NA                   | NE                        |  |  |  |  |
| Benzene         NA         1.8           Bromobenzene         NA         NE           Bromodichloromethane         NA         0.45           Bromoform         NA         14           Bromomethane         NA         1.2           Nbutylbenzene         NA         NE           Sec-butylbenzene         NA         NE           Carbon tetrachloride         NA         1.8           Chlorodibromomethane         NA         0.61           Chlorodibromomethane         NA         0.61           Chlorodibromomethane         NA         0.72           Chlorodibromomethane         NA         0.72           Chlorotoluene         NA         NE           1.2-dibromo-3-chloropropane         NA         NE           1.2-dibromoethane         NA         NE           1.2-dichlorobenzene         NA         NE           1.4-dichlorobenzene         NA         NE           1.4-dichloropropane  |     |                         | · ·                  |                           |  |  |  |  |
| Bromodichloromethane         NA         NE           Bromodichloromethane         NA         0.45           Bromoform         NA         14           Bromomethane         NA         1.2           N-butylbenzene         NA         NE           Carbon tetrachloride         NA         NE           Carbon tetrachloride         NA         1.8           Chlorobenzene         NA         1.0           Chlorobenzene         NA         0.61           Chlorodbromomethane         NA         0.72           Chlorodbromomethane         NA         0.72           Chlorodbromomethane         NA         0.72           Chlorodbromomethane         NA         NE           1,2-dibromo-s-chloropropane         NA         NE           1,2-dibromoethane         NA         NE           1,2-dichlorobenzene         NA         NE           1,2-dichlorobenzene         NA         NE           1,2-dichlorobenzene         NA         NE           1,1-dichlorobenzene         NA         NE           1,1-dichloropenzene         NA         NE           1,1-dichloropenzene         NA         NE           1,1-dichloropenzen  |     |                         |                      |                           |  |  |  |  |
| BromodichloromethaneNA0.45BromodiromNA14BromomethaneNA1.2N-butylbenzeneNANESec-butylbenzeneNANECarbon tetrachlorideNA1.3ChlorobenzeneNA10ChlorobenzeneNA0.61ChlorobenzeneNA2,400ChlorobenzeneNA2.2ChlorobenzeneNA0.72ChlorobenzeneNANE2.ChlorotolueneNANE1.2.dibromo-3-chloropropaneNANE1.2.dibromo-3-chloropropaneNANE1.2.dichlorobenzeneNANE1.2.dichlorobenzeneNANE1.2.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichlorobenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropenzeneNANE1.4.dichloropropeneNANE1.4.dichloropropeneNANE1.4.dichloropropeneNANE1.4.dichloropropeneNANE1.4.dichloropropeneNANE1.4.dichloropropeneNANE <td< td=""><td></td><td></td><td></td><td></td></td<>  |     |                         |                      |                           |  |  |  |  |
| BromoformNA14BromomethaneNA1.2N-butylbenzeneNANESec-butylbenzeneNANECarbon tetrachlorideNA1.8ChlorodbromomethaneNA0.61ChlorodbromomethaneNA0.72ChlorodhaneNA0.72ChlorodhaneNANE4.ChlorotolueneNANE1.2-dibromo-3-chloropropaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibromoethaneNANE1.2-dibrorobenzeneNANE1.2-dibrorobenzeneNANE1.2-dichlorobenzeneNANE1.1-dichloroethaneNANE1.1-dichloroethaneNANE1.1-dichloroethaneNANE1.1-dichloroetheneNANE1.1-dichloropropaneNANE1.1-dichloropropaneNANE1.1-dichloropropaneNANE1.1-dichloropropaneNANE1.1-dichloropropaneNANE1.1-dichloropropaneNANE1.1-dichloropropaneNANE1.1-dichloropropaneNANE1.1-dichloropropa   |     |                         |                      |                           |  |  |  |  |
| N-butylbenzeneNANETert-ButylbenzeneNANECarbon tetrachlorideNA1.8ChlorobenzeneNA10ChlorobenzeneNA0.61ChlorobenzeneNA0.61ChloromethaneNA2,400ChloromethaneNA0.72ChloromethaneNA0.72ChloromethaneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,2-dichloroetheneNA1801,2-dichloropopaneNANE1,1-dichloropopaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-di   |     |                         |                      |                           |  |  |  |  |
| Sec-butylbenzeneNANETert-ButylbenzeneNANACarbon tetrachlorideNA1.8ChlorodbromomethaneNA10ChlorodbromomethaneNA0.61ChlorodbromomethaneNA2,400ChlorodbromomethaneNA0.72ChlorodbromomethaneNA222-ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNA  |     | Bromomethane            | NA                   | 1.2                       |  |  |  |  |
| Tert-ButylbenzeneNANECarbon tetrachlorideNA1.8ChlorobenzeneNA10ChlorodibromomethaneNA0.61ChlorodibromomethaneNA0.72ChlorodibromomethaneNA2.400ChlorodolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromo-3-chloropropaneNANE1,2-dichlorobenzeneNANE1,2-dichlorobenzeneNANE1,1-dichlorobenzeneNANE1,1-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE   |     |                         |                      | NE                        |  |  |  |  |
| Carbon tetrachlorideNA1.8ChlorodbenzeneNA10ChlorodbromomethaneNA0.61ChlorodbromomethaneNA2,400ChloroformNA2,200ChloroformNA222.ChlorotolueneNANE4.ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,2-dichloroetheneNANE1,1-dichloroetheneNANE1,1-dichloroetheneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,1-dichloropropaneNANE   |     | •                       |                      |                           |  |  |  |  |
| ChlorobenzeneNA10ChlorodibromomethaneNA0.61ChlorodibromomethaneNA0.72ChloroformNA0.72ChlorotolueneNA0.72ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromo-ethaneNANE1,2-dibromo-ethaneNANE1,2-dibromomethaneNANE1,2-dibromomethaneNANE1,2-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,4-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroetheneNANE1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNANE1,2-dichloropropaneNANE1,2-dichloropropaneNANE1,2-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropeneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNA <t< td=""><td></td><td></td><td></td><td></td></t<>   |     |                         |                      |                           |  |  |  |  |
| ChlorodibromomethaneNA0.61ChloroethaneNA2,400ChloroformNA0.72ChloromethaneNA222-ChlorotolueneNANE4-ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dichlorobenzeneNANE1,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,2-dichloroetheneNANE1,1-dichloroethaneNANE1,2-dichloroetheneNANE1,2-dichloroetheneNANE1,1-dichloropropaneNANE1,2-dichloroetheneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,1-dichloroetheneNANE1,1-dichloroetheneNANE1,1-dichloroetheneNANE1,1-dichloroetheneNANE   |     |                         |                      | -                         |  |  |  |  |
| ChloroethaneNA2,400ChloroformNA0.72ChloromethaneNA222-ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dichlorobenzeneNANE1,3-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNA101,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA181,2-dichloropapeneNANE1,2-dichloropropaneNANE1,2-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE2,2-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE <td></td> <td></td> <td></td> <td></td>   |     |                         |                      |                           |  |  |  |  |
| ChloroformNA0.72ChloromethaneNA222-ChlorotolueneNANE4-ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dichlorobenzeneNANE1,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroetheneNA18Trans-1,2-dichloroetheneNANE1,2-dichloropropaneNANE1,3-dichloropopaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANEEthylbenzeneNANE4Hexachloro-1,3-butadieneNANE2-butanone (Mek)NANE4-methyl-2-pentanone (Mibk)NANE4-methyl-2-pentanone (Mibk)NANE4-methyl-2-pentanone (Mibk)NANE4-methyl-2-pentanone (Mibk)NANE1,1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE <tr< td=""><td></td><td></td><td></td><td></td></tr<>   |     |                         |                      |                           |  |  |  |  |
| 2-ChlorotolueneNANE4-ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dichlorobenzeneNA371,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNA101,2-dichloroethaneNA1801,2-dichloroetheneNA1801,2-dichloroptheneNANE1,1-dichloropopaneNANE1,1-dichloroptheneNANE1,2-dichloroptheneNANE1,3-dichloroptopaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE2,2-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropane<  |     |                         |                      |                           |  |  |  |  |
| 4-ChlorotolueneNANE1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANE1,2-dibromoethaneNANE1,2-dichlorobenzeneNA371,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNA101,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA181,3-dichloropopaneNANE1,3-dichloropropaneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE1,3-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropene  |     | Chloromethane           | NA                   | 22                        |  |  |  |  |
| 1,2-dibromo-3-chloropropaneNANE1,2-dibromoethaneNANEDibromomethaneNANE1,2-dichlorobenzeneNA371,3-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,4-dichlorobenzeneNANE1,1-dichloroethaneNANE1,1-dichloroethaneNANE1,1-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,2-dichloropopaneNANE1,3-dichloropropaneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE2,2-dichloropropeneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE2,2-dichloropropeneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE2,2-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropeneNANE1,1-dichloropropene </td <td></td> <td>2-Chlorotoluene</td> <td>NA</td> <td>NE</td>   |     | 2-Chlorotoluene         | NA                   | NE                        |  |  |  |  |
| 1,2-dibromoethaneNANEDibromomethaneNANE1,2-dichlorobenzeneNA371,3-dichlorobenzeneNANE1,4-dichlorobenzeneNA1.5DichlorodifluoromethaneNANE1,4-dichlorobenzeneNA101,2-dichloroethaneNA101,2-dichloroetheneNA142001,2-dichloroetheneNA181,1-dichloroetheneNA1801,2-dichloroppaneNANE1,1-dichloroppaneNANE1,3-dichloroppaneNANE1,3-dichloroppaneNANE1,3-dichloroppaneNANE1,3-dichloroppaneNANE1,3-dichloroppaneNANE2,2-dichloroppaneNANEEthylbenzeneNANEEthylbenzeneNANEEthylbenzeneNANEIsopropyltetherNANEIsopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANEMethylene chlorideNANEMethyleneNANENaphthaleneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1  |     |                         |                      |                           |  |  |  |  |
| DibromomethaneNANE1,2-dichlorobenzeneNA371,3-dichlorobenzeneNANE1,4-dichlorobenzeneNA1.5DichlorodifluoromethaneNANE1,1-dichloroethaneNA101,2-dichloroethaneNA101,2-dichloroethaneNA18Trans-1,2-dichloroetheneNA1801,2-dichloroetheneNA1801,2-dichloroetheneNANE1,1-dichloroppaneNANE1,1-dichloroppaneNANE1,3-dichloroppaneNANE2,2-dichloroppaneNANE2,2-dichloroppaneNANE2,2-dichloroppaneNANEDi-isopropyl etherNANEEthylbenzeneNANEEthylbenzeneNANE2-butanone (Mek)NANEMethyl-zpentanone (Mibk)NANEMethyl-zpentanone (Mibk)NANEMethyl-zpentanone (Mibk)NANENaphthaleneNA0.5N-propylbenzeneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNA <td></td> <td></td> <td></td> <td></td>   |     |                         |                      |                           |  |  |  |  |
| 1,2-dichlorobenzeneNA371,3-dichlorobenzeneNANE1,4-dichlorobenzeneNA1.5DichlorodifluoromethaneNANE1,1-dichloroethaneNA101,2-dichloroethaneNA101,2-dichloroethaneNA44Cis-1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,1-dichloroppaneNANE1,1-dichloroppaneNANE1,1-dichloroppaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANEDi-isopropyl etherNANEEthylbenzeneNANEEthylbenzeneNANEIsopropylbenzeneNANE2-butanone (Mek)NANEMethyl-z-pentanone (Mibk)NANEMethyl-z-pentanone (Mibk)NANEMethyl-z-trutyl etherNA0.5N-propylbenzeneNANEStyreneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNA <td></td> <td></td> <td></td> <td></td>   |     |                         |                      |                           |  |  |  |  |
| 1,3-dichlorobenzeneNANE1,4-dichlorobenzeneNA1.5DichlorodifluoromethaneNANE1,1-dichloroethaneNA101,2-dichloroethaneNANE1,1-dichloroethaneNA44Cis-1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,2-dichloropopaneNANE1,1-dichloropopaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANEEthylbenzeneNANEEthylbenzeneNANEEthylbenzeneNANE2-butanone (Mek)NANEMethyl tert-butyl etherNANEMethyl tert-butyl etherNANEMethyl tert-butyl etherNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNASTetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNAA1,1,2   |     |                         |                      |                           |  |  |  |  |
| 1.4-dichlorobenzeneNA1.5DichlorodifluoromethaneNANE1.1-dichloroethaneNA101.2-dichloroethaneNANE1.1-dichloroetheneNA44Cis-1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,2-dichloropropaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANEEthylbenzeneNANEEthylbenzeneNANEPisopropyl etherNANESopropylbenzeneNANE2-butanone (Mek)NANEMethyl tert-butyl etherNANEA-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNANEStyreneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNA   |     |                         |                      |                           |  |  |  |  |
| 1,1-dichloroethaneNA101,2-dichloroethaneNANE1,1-dichloroetheneNA44Cis-1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,2-dichloropropaneNANE1,2-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANEEthylbenzeneNANEBiopropyletherNANEIsopropyloueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMaphthaleneNA0.5N-propylbenzeneNANEStyreneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNAS1,1,2-tetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNA6TolueneNA6   |     |                         |                      |                           |  |  |  |  |
| 1,2-dichloroethaneNANE1,1-dichloroetheneNA44Cis-1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,2-dichloropopaneNANE1,1-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANEEthylbenzeneNANEEthylbenzeneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMaphthaleneNA0.5N-propylbenzeneNANE5tyreneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNASTetrachloroethaneNASTetrachloroethaneNA6TolueneNA6  |     | Dichlorodifluoromethane | NA                   | NE                        |  |  |  |  |
| 1,1-dichloroetheneNA44Cis-1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,2-dichloropropaneNANE1,2-dichloropropaneNANE1,3-dichloropropeneNANE1,3-dichloropropeneNANECis-1,3-dichloropropeneNANETrans-1,3-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropaneNANE4NANE5NaNE4NANE2,2-dichloro-1,3-butadieneNANE2-butanone (Mek)NANE4Methylene chlorideNANE4Methyl-2-pentanone (Mibk)NANENpropylbenzeneNANENpropylbenzeneNANE1,1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNAS1,1,2-tetrachloroethaneNAS1,1,2-tetrachloroethaneNA6TolueneNA6  |     | 1,1-dichloroethane      | NA                   | 10                        |  |  |  |  |
| Cis-1,2-dichloroetheneNA18Trans-1,2-dichloroetheneNA1801,2-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANE1,3-dichloropropaneNANECis-1,3-dichloropropeneNANETrans-1,3-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANEDi-isopropyl etherNANEEthylbenzeneNAA.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNANE2-butanone (Mek)NANEMethyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNAS1TetrachloroetheneNANE1,1,2-tetrachloroethaneNAS5TetrachloroetheneNA6TolueneNA62   |     |                         |                      |                           |  |  |  |  |
| Trans-1,2-dichloroetheneNA1801,2-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANECis-1,3-dichloropropeneNANETrans-1,3-dichloropropeneNANE2,2-dichloropropeneNANE2,2-dichloropropeneNANEDi-isopropyl etherNANEEthylbenzeneNANEIsopropylbenzeneNANE2-butanone (Mek)NANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNANEStyreneNANE1,1,2-tertachloroethaneNANE1,1,2-tertachloroethaneNANE1,1,2-trichlorotrifluoroethaneNANETetrachloroetheneNASTetrachloroetheneNASTetrachloroetheneNA220   |     |                         |                      |                           |  |  |  |  |
| VO1,2-dichloropropaneNANE1,1-dichloropropaneNANE1,3-dichloropropaneNANECis-1,3-dichloropropaneNANETrans-1,3-dichloropropeneNANE2,2-dichloropropaneNANE2,2-dichloropropaneNANEDi-isopropyl etherNANEEthylbenzeneNAA.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANENaphthaleneNA0.5N-propylbenzeneNA0.5N-propylbenzeneNANE4-methyl-ter-butyl etherNA0.5N-propylbenzeneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA63TolueneNA220  |     |                         |                      |                           |  |  |  |  |
| O1,1-dichloropropeneNANE1,3-dichloropropeneNANECis-1,3-dichloropropeneNANETrans-1,3-dichloropropeneNANE2,2-dichloropropaneNANEDi-isopropyl etherNANEEthylbenzeneNAA.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNAS1P-isopropylbenzeneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANENaphthaleneNA0.5N-propylbenzeneNANE5tyreneNANE1,1,2-tetrachloroethaneNANE1,1,2,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNANE1,10eneNASTetrachloroetheneNA220   |     |                         |                      |                           |  |  |  |  |
| S1,3-dichloropropaneNANECis-1,3-dichloropropeneNANETrans-1,3-dichloropropeneNANE2,2-dichloropropaneNANEDi-isopropyl etherNANEEthylbenzeneNA4.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNAS1P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMaphthaleneNA0.5N-propylbenzeneNA0.5N-propylbenzeneNANE4-methyl-tert-butyl etherNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNASTetrachloroetheneNA6TolueneNA220   | S   |                         |                      |                           |  |  |  |  |
| Trans-1,3-dichloropropeneNANE2,2-dichloropropaneNANEDi-isopropyl etherNANEEthylbenzeneNA4.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNA51P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNASTetrachloroetheneNA6TolueneNA6   | Ň,  |                         |                      |                           |  |  |  |  |
| 2,2-dichloropropaneNANEDi-isopropyl etherNANEEthylbenzeneNA4.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNA51P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNASTetrachloroetheneNA6TolueneNA220  |     | Cis-1,3-dichloropropene | NA                   | NE                        |  |  |  |  |
| Di-isopropyl etherNANEEthylbenzeneNA4.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNA51P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNANEStyreneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNASTetrachloroetheneNASTolueneNA6  |     |                         |                      |                           |  |  |  |  |
| EthylbenzeneNA4.5Hexachloro-1,3-butadieneNANEIsopropylbenzeneNA51P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNANEStyreneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA63TetrachloroetheneNAA1,10NAA1,12NA631,12NAA   |     |                         |                      |                           |  |  |  |  |
| Hexachloro-1,3-butadieneNANEIsopropylbenzeneNA51P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNANEStyreneNANE1,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNASTetrachloroetheneNA220  |     |                         |                      |                           |  |  |  |  |
| IsopropylbenzeneNA51P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNA0.5N-propylbenzeneNA1701,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNAS1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA6TolueneNA220  |     |                         |                      |                           |  |  |  |  |
| P-isopropyltolueneNANE2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNA0.5N-propylbenzeneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNASTetrachloroetheneNA6TolueneNA220  |     | ,                       |                      |                           |  |  |  |  |
| 2-butanone (Mek)NANEMethylene chlorideNANE4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNA0.5N-propylbenzeneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA5TetrachloroetheneNA6TolueneNA220   |     |                         |                      |                           |  |  |  |  |
| 4-methyl-2-pentanone (Mibk)NANEMethyl tert-butyl etherNA63NaphthaleneNA0.5N-propylbenzeneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNASTetrachloroetheneNA6TolueneNA220   |     |                         |                      |                           |  |  |  |  |
| Methyl tert-butyl etherNA63NaphthaleneNA0.5N-propylbenzeneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNASTetrachloroetheneNA6TolueneNA220  |     |                         | NA                   | NE                        |  |  |  |  |
| NaphthaleneNA0.5N-propylbenzeneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA6TolueneNA220  |     | , ,                     |                      |                           |  |  |  |  |
| N-propylbenzeneNANEStyreneNA1701,1,2-tetrachloroethaneNANE1,1,2,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA6TolueneNA220  |     |                         |                      |                           |  |  |  |  |
| StyreneNA1701,1,2-tetrachloroethaneNANE1,1,2,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA6TolueneNA220   |     |                         |                      |                           |  |  |  |  |
| 1,1,1,2-tetrachloroethaneNANE1,1,2,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA6TolueneNA220   |     |                         |                      |                           |  |  |  |  |
| 1,1,2,2-tetrachloroethaneNANE1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA6TolueneNA220  |     |                         |                      |                           |  |  |  |  |
| 1,1,2-trichlorotrifluoroethaneNA>STetrachloroetheneNA6TolueneNA220   |     |                         |                      |                           |  |  |  |  |
| TetrachloroetheneNA6TolueneNA220   |     |                         |                      |                           |  |  |  |  |
|  |     |                         |                      | 6                         |  |  |  |  |
| 1,2,3-trichlorobenzene NA NE   |     |                         |                      |                           |  |  |  |  |
|  |     | 1,2,3-trichlorobenzene  | NA                   | NE                        |  |  |  |  |



#### Table 10: SUMMARY OF HOG FUEL GROUNDWATER CHEMICAL DATA

|      |                         | Concentration (mg/L) |                                     |  |  |  |  |
|------|-------------------------|----------------------|-------------------------------------|--|--|--|--|
|      |                         | Hog Fuel Groundwater | _                                   |  |  |  |  |
|      | Compound                | Samples              | in Excavation                       |  |  |  |  |
|      |                         | HF-137-W             | Construction & Excavation<br>Worker |  |  |  |  |
|      | 1,2,4-trichlorobenzene  | NA                   | NE                                  |  |  |  |  |
|      | 1,1,1-trichloroethane   | NA                   | 1,100                               |  |  |  |  |
|      | 1,1,2-trichloroethane   | NA                   | 0.049                               |  |  |  |  |
|      | Trichloroethene         | NA                   | 0.43                                |  |  |  |  |
|      | Trichlorofluoromethane  | NA                   | 160                                 |  |  |  |  |
|      | 1,2,3-trichloropropane  | NA                   | NE                                  |  |  |  |  |
|      | 1,2,4-trimethylbenzene  | NA                   | 6                                   |  |  |  |  |
|      | 1,2,3-trimethylbenzene  | NA                   | NE                                  |  |  |  |  |
|      | 1,3,5-trimethylbenzene  | NA                   | 8                                   |  |  |  |  |
|      | Vinyl chloride          | NA                   | 0.96                                |  |  |  |  |
|      | Xylenes, total          | NA                   | 23                                  |  |  |  |  |
|      | Anthracene              | ND                   | >\$                                 |  |  |  |  |
|      | Acenaphthene            | ND                   | >\$                                 |  |  |  |  |
|      | Acenaphthylene          | ND                   | NE                                  |  |  |  |  |
|      | Benzo(a)anthracene      | ND                   | >\$                                 |  |  |  |  |
|      | Benzo(a)pyrene          | ND                   | >\$                                 |  |  |  |  |
|      | Benzo(b)fluoranthene    | ND                   | >\$                                 |  |  |  |  |
|      | Benzo(g,h,i)perylene    | ND                   | NE                                  |  |  |  |  |
|      | Benzo(k)fluoranthene    | ND                   | >\$                                 |  |  |  |  |
|      | Chrysene                | ND                   | >\$                                 |  |  |  |  |
| PAHs | Dibenz(a,h)anthracene   | ND                   | >\$                                 |  |  |  |  |
| д_   | Fluoranthene            | ND                   | >\$                                 |  |  |  |  |
|      | Fluorene                | ND                   | >\$                                 |  |  |  |  |
|      | Indeno(1,2,3-cd)pyrene  | ND                   | >\$                                 |  |  |  |  |
|      | Naphthalene             | ND                   | 0.5                                 |  |  |  |  |
|      | Phenanthrene            | ND                   | NE                                  |  |  |  |  |
|      | Pyrene                  | ND                   | >\$                                 |  |  |  |  |
|      | 1-methylnaphthalene     | ND                   | NE                                  |  |  |  |  |
|      | 2-methylnaphthalene     | ND                   | NE                                  |  |  |  |  |
|      | 2-chloronaphthalene     | ND                   | NE                                  |  |  |  |  |
|      | Diesel-Range Organics   | 0.0964               | >\$                                 |  |  |  |  |
|      | Residual-Range Organics | 0.163                | >\$                                 |  |  |  |  |
|      | Gasoline-Range Organics | NA                   | 14                                  |  |  |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the Risk-Based Concentration for groundwater in

excavation for the construction and excavation worker receptor



#### Table 11: SUMMARY OF STREAM CHANNEL AREA SOIL CHEMICAL DATA

|          |  | Concentration (mg/kg)<br>Stream Channel Area DEQ RBCs for Soil Ingestion, Dermal |                       |               |  |                      |  |  |
|----------|--|--|-----------------------|---------------|--|----------------------|--|--|
| Compound |  |  | annel Area<br>amples  |               | or Soil Ingestion<br>ct, and Inhalatic |                      |  |  |
|          |  | SC-205-1   | SC-206-1              | Occupational  | Construction<br>Worker                 | Excavation<br>Worker |  |  |
|          | Antimony   | 1.36 J   | ND                    | NE            | NE                                     | NE                   |  |  |
|          | Arsenic  | 3.12   | 4.84                  | 1.9           | 15                                     | 420                  |  |  |
|          | Beryllium  | 0.673  | ND                    | 2,300         | 700                                    | 19,000               |  |  |
|          | Cadmium  | 0.183 J  | ND                    | 1,100         | 350                                    | 9,700                |  |  |
|          | Chromium<br>Copper                               | <b>80.3</b><br>70.4  | <b>7.11</b><br>1.09 J | 6.3<br>47,000 | 49<br>14,000                           | 1,400<br>390,000     |  |  |
| Metals   | Lead   | 7.07   | 1.66                  | 800           | 800                                    | 800                  |  |  |
| Me       | Nickel   | 306  | 5.04                  | 22,000        | 7,000                                  | 190,000              |  |  |
|          | Selenium   | ND   | ND                    | NE            | NE                                     | NE                   |  |  |
|          | Silver   | ND   | ND                    | 5,800         | 1,800                                  | 49,000               |  |  |
|          | Thallium   | ND   | ND                    | NE            | NE                                     | NE                   |  |  |
|          | Zinc   | 230  | 14.9                  | NE            | NE                                     | NE                   |  |  |
|          | Mercury  | 0.0182 J   | 0.0072 J              | 350           | 110                                    | 2,900                |  |  |
|          | Acetone  | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Acrylonitrile                                    | NA   | NA                    | 4             | 40                                     | 1,100                |  |  |
|          | Benzene  | NA   | NA                    | 37            | 380                                    | 11,000               |  |  |
|          | Bromobenzene                                     | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Bromodichloromethane<br>Bromoform                | NA<br>NA   | NA<br>NA              | 15<br>260     | 230                                    | 6,300<br>74,000      |  |  |
|          | Bromotorm  | NA<br>NA   | NA                    | 260<br>750    | 2,700<br>370                           | 74,000<br>10,000     |  |  |
|          | N-butylbenzene                                   | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Sec-butylbenzene                                 | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Tert-Butylbenzene                                | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Carbon tetrachloride                             | NA   | NA                    | 34            | 320                                    | 8,900                |  |  |
|          | Chlorobenzene                                    | NA   | NA                    | 8,700         | 4,700                                  | 130,000              |  |  |
|          | Chlorodibromomethane                             | NA   | NA                    | 17            | 210                                    | 5,800                |  |  |
|          | Chloroethane                                     | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Chloroform                                       | NA   | NA                    | 26            | 410                                    | 11,000               |  |  |
|          | Chloromethane                                    | NA   | NA                    | 25,000        | 25,000                                 | 700,000              |  |  |
|          | 2-Chlorotoluene                                  | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 4-Chlorotoluene                                  | NA<br>NA   | NA                    | NE<br>NE      | NE                                     | NE                   |  |  |
|          | 1,2-dibromo-3-chloropropane<br>1,2-dibromoethane | NA   | NA<br>NA              | 0.73          | NE<br>9                                | NE<br>250            |  |  |
|          | Dibromomethane                                   | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 1,2-dichlorobenzene                              | NA   | NA                    | 36,000        | 20,000                                 | 560,000              |  |  |
|          | 1,3-dichlorobenzene                              | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 1,4-dichlorobenzene                              | NA   | NA                    | 64            | 1,300                                  | 36,000               |  |  |
|          | Dichlorodifluoromethane                          | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 1,1-dichloroethane                               | NA   | NA                    | 260           | 3,200                                  | 89,000               |  |  |
|          | 1,2-dichloroethane                               | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 1,1-dichloroethene                               | NA   | NA                    | 29,000        | 13,000                                 | 370,000              |  |  |
|          | Cis-1,2-dichloroethene                           | NA   | NA                    | 2,300         | 710                                    | 20,000               |  |  |
|          | Trans-1,2-dichloroethene                         | NA   | NA                    | 23,000        | 7,100                                  | 200,000              |  |  |
|          | 1,2-dichloropropane                              | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
| VOCs     | 1,1-dichloropropene<br>1,3-dichloropropane       | NA<br>NA   | NA<br>NA              | NE<br>NE      | NE                                     | NE                   |  |  |
| NC<br>V  | Cis-1,3-dichloropropane                          | NA<br>NA   | NA                    | NE            | NE<br>NE                               | NE<br>NE             |  |  |
|          | Trans-1,3-dichloropropene                        | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 2,2-dichloropropane                              | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Di-isopropyl ether                               | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Ethylbenzene                                     | NA   | NA                    | 150           | 1,700                                  | 49,000               |  |  |
|          | Hexachloro-1,3-butadiene                         | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Isopropylbenzene                                 | NA   | NA                    | 57,000        | 27,000                                 | 750,000              |  |  |
|          | P-isopropyltoluene                               | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 2-butanone (Mek)                                 | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Methylene chloride                               | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 4-methyl-2-pentanone (Mibk)                      | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Methyl tert-butyl ether                          | NA<br>NA   | NA<br>NA              | 1,100<br>23   | 12,000<br>580                          | 320,000              |  |  |
|          | Naphthalene<br>N-propylbenzene                   | NA<br>NA   | NA<br>NA              | 23<br>NE      | 580<br>NE                              | 16,000<br>NE         |  |  |
|          | Styrene  | NA   | NA                    | 130,000       | 56,000                                 | >Max                 |  |  |
|          | 1,1,1,2-tetrachloroethane                        | NA   | NA                    | NE            | 56,000<br>NE                           | NE                   |  |  |
|          | 1,1,2,2-tetrachloroethane                        | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | 1,1,2-trichlorotrifluoroethane                   | NA   | NA                    | NE            | NE                                     | NE                   |  |  |
|          | Tetrachloroethene                                | NA   | NA                    | 1,000         | 1,800                                  | 50,000               |  |  |
|          | retractitoroethene                               |  |                       |               |  |                      |  |  |
|          | Toluene  | NA   | NA                    | 88,000        | 28,000                                 | 770,000              |  |  |
|          |  | NA<br>NA   | NA<br>NA              | 88,000<br>NE  | 28,000<br>NE                           | 770,000<br>NE        |  |  |



#### Table 11: SUMMARY OF STREAM CHANNEL AREA SOIL CHEMICAL DATA

|      |                         |              |  | Concentration (m        | ig/kg)                 |                  |  |
|------|-------------------------|--------------|--|-------------------------|------------------------|------------------|--|
|      |                         |              | Stream Channel Area DEQ RBCs for Soil Ingestion, Derma |                         |                        |                  |  |
|      | Compound                | Soil Samples |  | Contact, and Inhalation |                        | on<br>Excavation |  |
|      |                         | SC-205-1     | SC-206-1   | Occupational            | Construction<br>Worker | Worker           |  |
|      | 1,1,1-trichloroethane   | NA           | NA   | 870,000                 | 470,000                | >Max             |  |
|      | 1,1,2-trichloroethane   | NA           | NA   | 26                      | 54                     | 1,500            |  |
|      | Trichloroethene         | NA           | NA   | 51                      | 130                    | 3,700            |  |
|      | Trichlorofluoromethane  | NA           | NA   | 130,000                 | 69,000                 | >Max             |  |
|      | 1,2,3-trichloropropane  | NA           | NA   | NE                      | NE                     | NE               |  |
|      | 1,2,4-trimethylbenzene  | NA           | NA   | 6,900                   | 6,900                  | 81,000           |  |
|      | 1,2,3-trimethylbenzene  | NA           | NA   | NE                      | NE                     | NE               |  |
|      | 1,3,5-trimethylbenzene  | NA           | NA   | 6,900                   | 6,900                  | 81,000           |  |
|      | Vinyl chloride          | NA           | NA   | 4.4                     | 34                     | 950              |  |
|      | Xylenes, total          | NA           | NA   | 25,000                  | 20,000                 | 560,000          |  |
|      | Anthracene              | 0.0273       | ND   | 350,000                 | 110,000                | >Max             |  |
|      | Acenaphthene            | 0.0142       | ND   | 70,000                  | 21,000                 | 590,000          |  |
|      | Acenaphthylene          | 0.0105       | ND   | NE                      | NE                     | NE               |  |
|      | Benzo(a)anthracene      | 0.138        | 0.00102 J  | 21                      | 170                    | 4,800            |  |
|      | Benzo(a)pyrene          | 0.168        | ND   | 2.1                     | 17                     | 490              |  |
|      | Benzo(b)fluoranthene    | 0.279        | ND   | 21                      | 170                    | 4,900            |  |
|      | Benzo(g,h,i)perylene    | 0.13         | ND   | NE                      | NE                     | NE               |  |
|      | Benzo(k)fluoranthene    | 0.0709       | ND   | 210                     | 1,700                  | 49,000           |  |
| (0   | Chrysene                | 0.201        | ND   | 2,100                   | 17,000                 | 490,000          |  |
| PAHs | Dibenz(a,h)anthracene   | 0.0272       | ND   | 2.1                     | 17                     | 490              |  |
| Ъ    | Fluoranthene            | 0.481        | 0.0019 J   | 30,000                  | 10,000                 | 280,000          |  |
|      | Fluorene                | 0.0104       | ND   | 47,000                  | 14,000                 | 390,000          |  |
|      | Indeno(1,2,3-cd)pyrene  | 0.109        | ND   | 21                      | 170                    | 4,900            |  |
|      | Naphthalene             | 0.0348       | ND   | 23                      | 580                    | 16,000           |  |
|      | Phenanthrene            | 0.208        | ND   | NE                      | NE                     | NE               |  |
|      | Pyrene                  | 0.261        | 0.00127 J  | 23,000                  | 7,500                  | 210,000          |  |
|      | 1-methylnaphthalene     | 0.00345 J    | ND   | NE                      | NE                     | NE               |  |
|      | 2-methylnaphthalene     | 0.00596 J    | ND   | NE                      | NE                     | NE               |  |
|      | 2-chloronaphthalene     | ND           | ND   | NE                      | NE                     | NE               |  |
|      | Total PCBs              | ND           | ND J3  | 0.59                    | 4.9                    | 140              |  |
|      | Diesel-Range Organics   | ND           | ND   | 14,000                  | 4,600                  | >Max             |  |
|      | Residual-Range Organics | 23.6 J       | ND   | 14,000                  | 4,600                  | >Max             |  |
|      | Gasoline-Range Organics | 0.122 J      | 0.133 J  | 20,000                  | 9,700                  | >Max             |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precisi

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this



#### Table 12: SUMMARY OF NORTH AND SOUTH "LOWERATORS" AREA SOIL CHEMICAL DATA

|        |   | Concentration (mg/kg)           North and South "Lowerators" Area Soil         DEQ RBCs for Soil Ingestion, Dermal |           |            |          |              |                                   |               |
|--------|---|--|-----------|------------|----------|--------------|-----------------------------------|---------------|
|        | Compound                                  |  | Sam       | ples       |          | Conta        | ct, and Inhalatio<br>Construction |               |
|        |   |  | SL-180-15 |            |          | Occupational | Worker                            | Worker        |
|        | Antimony                                  | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Arsenic                                   | NA   | NA        | 3.97       | NA       | 1.9          | 15                                | 420           |
|        | Beryllium                                 | NA   | NA        | ND         | NA       | 2,300        | 700                               | 19,000        |
|        | Cadmium                                   | NA   | NA        | ND         | NA       | 1,100        | 350                               | 9,700         |
|        | Chromium                                  | NA   | NA        | 8.76       | NA       | 6.3          | 49                                | 1,400         |
| als    | Copper                                    | NA   | NA        | 3.97       | NA       | 47,000       | 14,000                            | 390,000       |
| Metals | Lead                                      | NA   | NA        | 3.63       | NA       | 800          | 800                               | 800           |
|        | Nickel                                    | NA   | NA        | 4.67       | NA       | 22,000       | 7,000                             | 190,000       |
|        | Selenium                                  | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Silver<br>Thallium                        | NA   | NA        | ND         | NA       | 5,800<br>NE  | 1,800                             | 49,000        |
|        | Zinc                                      | NA<br>NA   | NA<br>NA  | ND<br>17.6 | NA<br>NA | NE           | NE<br>NE                          | NE<br>NE      |
|        |   |  |           |            |          |              |                                   |               |
|        | Mercury                                   | NA   | NA        | 0.0444     | NA       | 350          | 110                               | 2,900         |
|        | Acetone                                   | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Acrylonitrile                             | NA   | NA        | ND         | NA       | 4            | 40                                | 1,100         |
|        | Benzene                                   | NA   | NA        | 0.00059 J  | NA       | 37           | 380                               | 11,000        |
|        | Bromobenzene                              | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Bromodichloromethane                      | NA   | NA        | ND         | NA       | 15           | 230                               | 6,300         |
|        | Bromoform                                 | NA   | NA        | ND         | NA       | 260          | 2,700                             | 74,000        |
|        | Bromomethane                              | NA   | NA        | ND         | NA       | 750          | 370                               | 10,000        |
|        | N-butylbenzene                            | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Sec-butylbenzene                          | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Tert-Butylbenzene<br>Carbon tetrachloride | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Chlorobenzene                             | NA   | NA        | ND         | NA       | 34           | 320                               | 8,900         |
|        | Chlorodibromomethane                      | NA   | NA        | ND         | NA       | 8,700        | 4,700                             | 130,000       |
|        | Chloroethane                              | NA<br>NA   | NA<br>NA  | ND<br>ND   | NA<br>NA | 17<br>NE     | 210<br>NE                         | 5,800<br>NE   |
|        | Chloroform                                | NA   | NA        | ND         | NA       | 26           | 410                               | 11,000        |
|        | Chloromethane                             | NA   | NA        | ND         | NA       | 25,000       | 25,000                            | 700,000       |
|        | 2-Chlorotoluene                           | NA   | NA        | ND         | NA       | 25,000<br>NE | 23,000<br>NE                      | 700,000<br>NE |
|        | 4-Chlorotoluene                           | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 1,2-dibromo-3-chloropropane               | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 1,2-dibromoethane                         | NA   | NA        | ND         | NA       | 0.73         | 9                                 | 250           |
|        | Dibromomethane                            | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 1,2-dichlorobenzene                       | NA   | NA        | 0.0223     | NA       | 36,000       | 20,000                            | 560,000       |
|        | 1,3-dichlorobenzene                       | NA   | NA        | 0.00091 J  | NA       | NE           | 20,000<br>NE                      | NE            |
|        | 1,4-dichlorobenzene                       | NA   | NA        | 0.00202    | NA       | 64           | 1,300                             | 36,000        |
|        | Dichlorodifluoromethane                   | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 1,1-dichloroethane                        | NA   | NA        | ND         | NA       | 260          | 3,200                             | 89,000        |
|        | 1,2-dichloroethane                        | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 1,1-dichloroethene                        | NA   | NA        | ND         | NA       | 29,000       | 13,000                            | 370,000       |
|        | Cis-1,2-dichloroethene                    | NA   | NA        | ND         | NA       | 2,300        | 710                               | 20,000        |
|        | Trans-1,2-dichloroethene                  | NA   | NA        | ND         | NA       | 23,000       | 7,100                             | 200,000       |
|        | 1,2-dichloropropane                       | NA   | NA        | ND         | NA       | NE           | NE                                | 200,000<br>NE |
|        | 1,1-dichloropropene                       | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
| VOCs   | 1,3-dichloropropane                       | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
| >      | Cis-1,3-dichloropropene                   | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Trans-1,3-dichloropropene                 | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 2,2-dichloropropane                       | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Di-isopropyl ether                        | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Ethylbenzene                              | NA   | NA        | ND         | NA       | 150          | 1,700                             | 49,000        |
|        | Hexachloro-1,3-butadiene                  | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Isopropylbenzene                          | NA   | NA        | ND         | NA       | 57,000       | 27,000                            | 750,000       |
|        | P-isopropyltoluene                        | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 2-butanone (Mek)                          | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Methylene chloride                        | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 4-methyl-2-pentanone (Mibk)               | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Methyl tert-butyl ether                   | NA   | NA        | ND         | NA       | 1,100        | 12,000                            | 320,000       |
|        | Naphthalene                               | NA   | NA        | ND         | NA       | 23           | 580                               | 16,000        |
|        | N-propylbenzene                           | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Styrene                                   | NA   | NA        | ND         | NA       | 130,000      | 56,000                            | >Max          |
|        | 1,1,1,2-tetrachloroethane                 | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 1,1,2,2-tetrachloroethane                 | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | 1,1,2-trichlorotrifluoroethane            | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |
|        | Tetrachloroethene                         | NA   | NA        | ND         | NA       | 1,000        | 1,800                             | 50,000        |
|        | Toluene                                   | NA   | NA        | 0.0102     | NA       | 88,000       | 28,000                            | 770,000       |
|        | 1,2,3-trichlorobenzene                    | NA   | NA        | ND         | NA       | NE           | 20,000<br>NE                      | NE            |
|        | 1,2,4-trichlorobenzene                    | NA   | NA        | ND         | NA       | NE           | NE                                | NE            |



#### Table 12: SUMMARY OF NORTH AND SOUTH "LOWERATORS" AREA SOIL CHEMICAL DATA

|      |                         |           |              |              | Concentrati | on (mg/kg)                          |                        |                      |
|------|-------------------------|-----------|--------------|--------------|-------------|-------------------------------------|------------------------|----------------------|
|      |                         | North a   | nd South "Lo | owerators" / | Area Soil   | DEQ RBCs for Soil Ingestion, Dermal |                        |                      |
|      | Compound                | Samples   |              |              | Conta       | ct, and Inhalatio                   |                        |                      |
|      |                         | SL-180-10 | SL-180-15    | NL-182-5     | NL-183-15   | Occupational                        | Construction<br>Worker | Excavation<br>Worker |
|      | 1,1,1-trichloroethane   | NA        | NA           | ND           | NA          | 870,000                             | 470,000                | >Max                 |
|      | 1,1,2-trichloroethane   | NA        | NA           | ND           | NA          | 26                                  | 54                     | 1,500                |
|      | Trichloroethene         | NA        | NA           | ND           | NA          | 51                                  | 130                    | 3,700                |
|      | Trichlorofluoromethane  | NA        | NA           | ND           | NA          | 130,000                             | 69,000                 | >Max                 |
|      | 1,2,3-trichloropropane  | NA        | NA           | ND           | NA          | NE                                  | NE                     | NE                   |
|      | 1,2,4-trimethylbenzene  | NA        | NA           | 0.00073 J    | NA          | 6,900                               | 6,900                  | 81,000               |
|      | 1,2,3-trimethylbenzene  | NA        | NA           | 0.00048 J    | NA          | NE                                  | NE                     | NE                   |
|      | 1,3,5-trimethylbenzene  | NA        | NA           | 0.00032 J    | NA          | 6,900                               | 6,900                  | 81,000               |
|      | Vinyl chloride          | NA        | NA           | ND           | NA          | 4.4                                 | 34                     | 950                  |
|      | Xylenes, total          | NA        | NA           | ND           | NA          | 25,000                              | 20,000                 | 560,000              |
|      | Anthracene              | ND        | 0.0236 J     | ND           | ND          | 350,000                             | 110,000                | >Max                 |
|      | Acenaphthene            | ND        | ND           | ND           | ND          | 70,000                              | 21,000                 | 590,000              |
|      | Acenaphthylene          | ND        | ND           | ND           | ND          | NE                                  | NE                     | NE                   |
|      | Benzo(a)anthracene      | ND        | 0.0446 J     | ND           | ND          | 21                                  | 170                    | 4,800                |
|      | Benzo(a)pyrene          | ND        | 0.887        | 0.00409 J    | ND          | 2.1                                 | 17                     | 490                  |
|      | Benzo(b)fluoranthene    | ND        | 0.17         | ND           | ND          | 21                                  | 170                    | 4,900                |
|      | Benzo(g,h,i)perylene    | ND        | ND           | ND           | ND          | NE                                  | NE                     | NE                   |
|      | Benzo(k)fluoranthene    | ND        | 0.0235 J     | ND           | ND          | 210                                 | 1,700                  | 49,000               |
| ŝ    | Chrysene                | ND        | 0.0182 J     | ND           | ND          | 2,100                               | 17,000                 | 490,000              |
| PAHs | Dibenz(a,h)anthracene   | ND        | 1.1461 J     | ND           | ND          | 2.1                                 | 17                     | 490                  |
| д_   | Fluoranthene            | ND        | ND           | ND           | ND          | 30,000                              | 10,000                 | 280,000              |
|      | Fluorene                | ND        | 0.0159 J     | ND           | ND          | 47,000                              | 14,000                 | 390,000              |
|      | Indeno(1,2,3-cd)pyrene  | ND        | 0.0303 J     | ND           | ND          | 21                                  | 170                    | 4,900                |
|      | Naphthalene             | 0.00519 J | ND           | 0.0264 J     | ND          | 23                                  | 580                    | 16,000               |
|      | Phenanthrene            | ND        | 0.0158 J     | ND           | ND          | NE                                  | NE                     | NE                   |
|      | Pyrene                  | ND        | 0.0387 J     | 0.00079 J    | ND          | 23,000                              | 7,500                  | 210,000              |
|      | 1-methylnaphthalene     | ND        | ND           | ND           | ND          | NE                                  | NE                     | NE                   |
|      | 2-methylnaphthalene     | ND        | 0.0811 J     | ND           | ND          | NE                                  | NE                     | NE                   |
|      | 2-chloronaphthalene     | ND        | ND           | ND           | ND          | NE                                  | NE                     | NE                   |
|      | Total PCBs              | NA        | NA           | NA           | NA          | 0.59                                | 4.9                    | 140                  |
|      | Diesel-Range Organics   | 4440      | 26.6         | 166          | NA          | 14,000                              | 4,600                  | >Max                 |
|      | Residual-Range Organics | 61,500    | 348          | 1,560        | NA          | 14,000                              | 4,600                  | >Max                 |
|      | Gasoline-Range Organics | NA        | NA           | NA           | NA          | 20,000                              | 9,700                  | >Max                 |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



#### Table 13: SUMMARY OF NORTH SOUTH LOWERATORS GROUNDWATER CHEMICAL DATA

|        |                                  |                            | Concentration (n             |                                     |
|--------|----------------------------------|----------------------------|------------------------------|-------------------------------------|
|        | Compound                         | North and South Low<br>Sam | verators Groundwater<br>ples | in Excavation                       |
|        |                                  | SL-180-W                   | SL-186-W                     | Construction & Excavation<br>Worker |
|        | Antimony                         | 0.000867 J                 | ND                           | NE                                  |
|        | Arsenic                          | 0.00732                    | 0.0164                       | 6.3                                 |
|        | Beryllium                        | ND                         | ND                           | 270                                 |
|        | Cadmium                          | ND                         | ND                           | 130                                 |
|        | Chromium                         | 0.00641 J                  | 0.0218                       | 9.4                                 |
| s      | Copper                           | 0.00704 J                  | 0.0119                       | 5,400                               |
| Metals | Lead                             | 0.00447                    | 0.00229                      | > S                                 |
| 2      | Nickel                           | ND                         | 0.00975 J                    | >\$                                 |
|        | Selenium                         | ND                         | ND                           | NE                                  |
|        | Silver                           | ND                         | ND                           | 1,100                               |
|        | Thallium                         | ND                         | ND                           | ND                                  |
|        | Zinc                             | 0.596                      | 0.0259 J                     | NE                                  |
|        | Mercury                          | 0.0000683 B J              | 0.0000747 B J                | > S                                 |
|        | Acetone                          | ND J4                      | ND J4                        | NE                                  |
|        | Acrolein                         | ND J4                      | ND J4                        | NE                                  |
|        | Acrylonitrile                    | ND                         | ND                           | 0.25                                |
|        | Benzene                          | ND                         | ND                           | 1.8                                 |
|        | Bromobenzene                     | ND                         | ND                           | NE                                  |
|        | Bromodichloromethane             | ND                         | ND                           | 0.45                                |
|        | Bromoform                        | ND                         | ND                           | 14                                  |
|        | Bromomethane                     | ND                         | ND                           | 1.2                                 |
|        | N-butylbenzene                   | ND                         | ND                           | NE                                  |
|        | Sec-butylbenzene                 | ND                         | ND                           | NE                                  |
|        | Tert-Butylbenzene                | ND                         | ND                           | NE                                  |
|        | Carbon tetrachloride             | ND                         | ND                           | 1.8                                 |
|        | Chlorobenzene                    | ND                         | ND                           | 10                                  |
|        | Chlorodibromomethane             | ND                         | ND                           | 0.61                                |
|        | Chloroethane                     | ND J4                      | ND J4                        | 2,400                               |
|        | Chloroform                       | ND                         | ND                           | 0.72                                |
|        | Chloromethane<br>2-Chlorotoluene | ND                         | ND                           | 22                                  |
|        | 4-Chlorotoluene                  | ND<br>ND                   | ND<br>ND                     | NE<br>NE                            |
|        | 1,2-dibromo-3-chloropropane      | ND                         | ND                           | NE                                  |
|        | 1,2-dibromoethane                | ND                         | ND                           | NE                                  |
|        | Dibromomethane                   | ND                         | ND                           | NE                                  |
|        | 1,2-dichlorobenzene              | ND                         | ND                           | 37                                  |
|        | 1,3-dichlorobenzene              | ND                         | ND                           | NE                                  |
|        | 1,4-dichlorobenzene              | ND                         | ND                           | 1.5                                 |
|        | Dichlorodifluoromethane          | ND                         | ND                           | NE                                  |
|        | 1,1-dichloroethane               | ND                         | ND                           | 10                                  |
|        | 1,2-dichloroethane               | ND                         | ND                           | NE                                  |
|        | 1,1-dichloroethene               | ND                         | ND                           | 44                                  |
|        | Cis-1,2-dichloroethene           | ND                         | ND                           | 18                                  |
|        | Trans-1,2-dichloroethene         | ND                         | ND                           | 180                                 |
|        | 1,2-dichloropropane              | ND                         | ND                           | NE                                  |
| S      | 1,1-dichloropropene              | ND                         | ND                           | NE                                  |
| VOCS   | 1,3-dichloropropane              | ND                         | ND                           | NE                                  |
|        | Cis-1,3-dichloropropene          | ND                         | ND                           | NE                                  |
|        | Trans-1,3-dichloropropene        | ND                         | ND                           | NE                                  |
|        | 2,2-dichloropropane              | ND                         | ND                           | NE                                  |
|        | Di-isopropyl ether               | ND                         | ND                           | NE                                  |
|        | Ethylbenzene                     | ND                         | ND                           | 4.5                                 |
|        | Hexachloro-1,3-butadiene         | ND                         | ND                           | NE                                  |
|        | Isopropylbenzene                 | ND                         | ND                           | 51                                  |
|        | P-isopropyltoluene               | ND                         | ND                           | NE                                  |
|        | 2-butanone (Mek)                 | ND                         | ND                           | NE                                  |
|        | Methylene chloride               | ND                         | ND                           | NE                                  |
|        | 4-methyl-2-pentanone (Mibk)      | ND                         | ND                           | NE                                  |
|        | Methyl tert-butyl ether          | ND                         | ND                           | 63                                  |
|        | Naphthalene                      | ND                         | ND                           | 0.5                                 |
|        | N-propylbenzene                  | ND                         | ND                           | NE                                  |
|        | Styrene                          | ND                         | ND                           | 170                                 |
|        | 1,1,1,2-tetrachloroethane        | ND                         | ND                           | NE                                  |
|        | 1,1,2,2-tetrachloroethane        | ND                         | ND                           | NE                                  |
|        | 1,1,2-trichlorotrifluoroethane   | ND                         | ND                           | >\$                                 |
|        | Latrachlaroothana                | ND                         | ND                           | 6                                   |
|        | Tetrachloroethene<br>Toluene     | ND                         | ND                           | 220                                 |



#### Table 13: SUMMARY OF NORTH SOUTH LOWERATORS GROUNDWATER CHEMICAL DATA

|      |                         | Concentration (mg/L) |               |                                     |  |  |  |
|------|-------------------------|----------------------|---------------|-------------------------------------|--|--|--|
|      |                         | North and South Low  |               | DEQ RBCs for Groundwater            |  |  |  |
|      | Compound                | Sam                  | ples          | in Excavation                       |  |  |  |
|      |                         | SL-180-W             | SL-186-W      | Construction & Excavation<br>Worker |  |  |  |
| _    | 1,2,4-trichlorobenzene  | ND                   | ND            | NE                                  |  |  |  |
|      | 1,1,1-trichloroethane   | ND                   | ND            | 1,100                               |  |  |  |
|      | 1,1,2-trichloroethane   | ND                   | ND            | 0.049                               |  |  |  |
|      | Trichloroethene         | ND                   | ND            | 0.43                                |  |  |  |
|      | Trichlorofluoromethane  | ND                   | ND            | 160                                 |  |  |  |
|      | 1,2,3-trichloropropane  | ND                   | ND            | NE                                  |  |  |  |
|      | 1,2,4-trimethylbenzene  | ND                   | ND            | 6                                   |  |  |  |
|      | 1,2,3-trimethylbenzene  | ND                   | ND            | NE                                  |  |  |  |
|      | 1,3,5-trimethylbenzene  | ND                   | ND            | 8                                   |  |  |  |
|      | Vinyl chloride          | ND                   | ND            | 0.96                                |  |  |  |
|      | Xylenes, total          | ND                   | ND            | 23                                  |  |  |  |
|      | Anthracene              | ND                   | ND            | >\$                                 |  |  |  |
|      | Acenaphthene            | ND                   | ND            | >5                                  |  |  |  |
|      | Acenaphthylene          | ND                   | ND            | NE                                  |  |  |  |
|      | Benzo(a)anthracene      | ND                   | ND            | >\$                                 |  |  |  |
|      | Benzo(a)pyrene          | ND                   | ND            | >\$                                 |  |  |  |
|      | Benzo(b)fluoranthene    | ND                   | ND            | >\$                                 |  |  |  |
|      | Benzo(g,h,i)perylene    | ND                   | ND            | NE                                  |  |  |  |
|      | Benzo(k)fluoranthene    | ND                   | ND            | >\$                                 |  |  |  |
| s    | Chrysene                | ND                   | ND            | >\$                                 |  |  |  |
| PAHs | Dibenz(a,h)anthracene   | ND                   | ND            | >\$                                 |  |  |  |
| Δ_   | Fluoranthene            | ND                   | ND            | >\$                                 |  |  |  |
|      | Fluorene                | ND                   | ND            | >\$                                 |  |  |  |
|      | Indeno(1,2,3-cd)pyrene  | ND                   | ND            | >\$                                 |  |  |  |
|      | Naphthalene             | 0.0000366 B J        | 0.0000447 B J | 0.5                                 |  |  |  |
|      | Phenanthrene            | ND                   | ND            | NE                                  |  |  |  |
|      | Pyrene                  | ND                   | ND            | >\$                                 |  |  |  |
|      | 1-methylnaphthalene     | 0.0000123 J          | ND            | NE                                  |  |  |  |
|      | 2-methylnaphthalene     | ND                   | ND            | NE                                  |  |  |  |
|      | 2-chloronaphthalene     | ND                   | ND            | NE                                  |  |  |  |
|      | Diesel-Range Organics   | 7.58                 | 0.0593 J      | >\$                                 |  |  |  |
|      | Residual-Range Organics | 11.1                 | 0.248 J       | >\$                                 |  |  |  |
|      | Gasoline-Range Organics | NA                   | ND            | 14                                  |  |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

**Bold:** Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.



#### Table 14: SUMMARY OF FORMER PAINT/MOBILE/FUEL SHOP AREA SOIL CHEMICAL DATA

|        |  | Former Paint/Mobile/Fuel | DEQ RBCs f   | кg)<br>or Soil Ingestion          | , Dermal      |
|--------|--|--------------------------|--------------|-----------------------------------|---------------|
|        | Compound   | Shops Area Soil Samples  | Conta        | ct, and Inhalatio<br>Construction |               |
|        |  | SH-177-5                 | Occupational | Worker                            | Worker        |
|        | Antimony   | ND                       | NE           | NE                                | NE            |
|        | Arsenic  | 4.33                     | 1.9          | 15                                | 420           |
|        | Beryllium  | ND                       | 2,300        | 700                               | 19,000        |
|        | Cadmium<br>Chromium                                    | ND                       | 1,100<br>6.3 | 350                               | 9,700<br>1400 |
|        | Copper   | 6.15<br>0.944 J          | 47,000       | 49<br>14,000                      | 390,000       |
| Metals | Lead   | 1.62                     | 800          | 800                               | 800           |
| Me     | Nickel   | 3.45                     | 22,000       | 7,000                             | 190,000       |
|        | Selenium   | ND                       | NE           | NE                                | NE            |
|        | Silver   | ND                       | 5,800        | 1,800                             | 49,000        |
|        | Thallium   | ND                       | NE           | NE                                | NE            |
|        | Zinc   | 7.93                     | NE           | NE                                | NE            |
|        | Mercury  | 0.0443                   | 350          | 110                               | 2,900         |
|        | Acetone  | ND                       | NE           | NE                                | NE            |
|        | Acrylonitrile  | ND                       | 4            | 40                                | 1,100         |
|        | Benzene  | ND                       | 37           | 380                               | 11,000        |
|        | Bromobenzene   | ND                       | NE           | NE                                | NE            |
|        | Bromodichloromethane                                   | ND                       | 15           | 230                               | 6,300         |
|        | Bromoform  | ND                       | 260          | 2,700                             | 74,000        |
|        | Bromomethane   | ND                       | 750          | 370                               | 10,000        |
|        | N-butylbenzene   | ND                       | NE           | NE                                | NE            |
|        | Sec-butylbenzene                                       | ND                       | NE           | NE                                | NE            |
|        | Tert-Butylbenzene                                      | ND                       | NE           | NE                                | NE            |
|        | Carbon tetrachloride                                   | ND                       | 34           | 320                               | 8,900         |
|        | Chlorobenzene  | ND                       | 8,700        | 4,700                             | 130,000       |
|        | Chlorodibromomethane                                   | ND                       | 17           | 210                               | 5,800         |
|        | Chloroethane   | ND                       | NE           | NE                                | NE            |
|        | Chloroform   | ND                       | 26           | 410                               | 11,000        |
|        | Chloromethane  | ND                       | 25,000       | 25,000                            | 700,000       |
|        | 2-Chlorotoluene<br>4-Chlorotoluene                     | ND<br>ND                 | NE<br>NE     | NE<br>NE                          | NE<br>NE      |
|        | 1,2-dibromo-3-chloropropane                            | ND                       | NE           | NE                                | NE            |
|        | 1,2-dibromoethane                                      | ND                       | 0.73         | 9                                 | 250           |
|        | Dibromomethane   | ND                       | NE           | NE                                | NE            |
|        | 1,2-dichlorobenzene                                    | ND                       | 36,000       | 20,000                            | 560,000       |
|        | 1,3-dichlorobenzene                                    | ND                       | NE           | NE                                | NE            |
|        | 1,4-dichlorobenzene                                    | ND                       | 64           | 1,300                             | 36,000        |
|        | Dichlorodifluoromethane                                | ND                       | NE           | NE                                | NE            |
|        | 1,1-dichloroethane                                     | ND                       | 260          | 3,200                             | 89,000        |
|        | 1,2-dichloroethane                                     | ND                       | NE           | NE                                | NE            |
|        | 1,1-dichloroethene                                     | ND                       | 29,000       | 13,000                            | 370,000       |
|        | Cis-1,2-dichloroethene                                 | ND                       | 2,300        | 710                               | 20,000        |
|        | Trans-1,2-dichloroethene                               | ND                       | 23,000       | 7,100                             | 200,000       |
|        | 1,2-dichloropropane                                    | ND                       | NE           | NE                                | NE            |
| S      | 1,1-dichloropropene                                    | ND                       | NE           | NE                                | NE            |
| VOCS   | 1,3-dichloropropane                                    | ND                       | NE           | NE                                | NE            |
|        | Cis-1,3-dichloropropene                                | ND                       | NE           | NE                                | NE            |
|        | Trans-1,3-dichloropropene                              | ND                       | NE           | NE                                | NE            |
|        | 2,2-dichloropropane                                    | ND                       | NE           | NE                                | NE            |
|        | Di-isopropyl ether                                     | ND                       | NE           | NE                                | NE            |
|        | Ethylbenzene   | ND                       | 150          | 1,700                             | 49,000        |
|        | Hexachloro-1,3-butadiene                               | ND                       | NE           | NE                                | NE            |
|        | Isopropylbenzene                                       | ND                       | 57,000       | 27,000                            | 750,000       |
|        | P-isopropyltoluene                                     | ND                       | NE           | NE                                | NE            |
|        | 2-butanone (Mek)                                       | ND                       | NE           | NE                                | NE            |
|        | Methylene chloride                                     | ND                       | NE<br>NE     | NE                                | NE<br>NE      |
|        | 4-methyl-2-pentanone (Mibk)<br>Methyl tert-butyl ether | ND<br>ND                 | NE<br>1,100  | NE<br>12,000                      | NE<br>320,000 |
|        | Naphthalene  | ND                       | 23           | 580                               | 16,000        |
|        | N-propylbenzene  | ND                       | 23<br>NE     | NE                                | 16,000<br>NE  |
|        | Styrene  | ND                       | 130,000      | 56,000                            | >Max          |
|        | 1,1,1,2-tetrachloroethane                              | ND                       | NE           | 56,000<br>NE                      | > Max<br>NE   |
|        | 1,1,2,2-tetrachloroethane                              | ND                       | NE           | NE                                | NE            |
|        | 1,1,2-trichlorotrifluoroethane                         | ND                       | NE           | NE                                | NE            |
|        | Tetrachloroethene                                      | ND                       | 1,000        | 1,800                             | 50,000        |
|        | Toluene  | ND                       | 88,000       | 28,000                            | 770,000       |
|        | 1,2,3-trichlorobenzene                                 | ND                       | NE           | 20,000<br>NE                      | 770,000<br>NE |
|        | 1,2,4-trichlorobenzene                                 | ND                       | NE           | NE                                | NE            |



#### Table 14: SUMMARY OF FORMER PAINT/MOBILE/FUEL SHOP AREA SOIL CHEMICAL DATA

|      |                         | Co                       | oncentration (mg/ | kg)                    |                      |
|------|-------------------------|--------------------------|-------------------|------------------------|----------------------|
|      |                         | Former Paint/Mobile/Fuel | DEQ RBCs fo       | or Soil Ingestion      | ,                    |
|      | Compound                | Shops Area Soil Samples  | Conta             | ct, and Inhalatio      |                      |
|      |                         | SH-177-5                 | Occupational      | Construction<br>Worker | Excavation<br>Worker |
|      | 1,1,1-trichloroethane   | ND                       | 870,000           | 470,000                | NE                   |
|      | 1,1,2-trichloroethane   | ND                       | 26                | 54                     | 1,500                |
|      | Trichloroethene         | ND                       | 51                | 130                    | 3,700                |
|      | Trichlorofluoromethane  | ND                       | 130,000           | 69,000                 | >Max                 |
|      | 1,2,3-trichloropropane  | ND                       | NE                | NE                     | NE                   |
|      | 1,2,4-trimethylbenzene  | ND                       | 6,900             | 6,900                  | 81,000               |
|      | 1,2,3-trimethylbenzene  | ND                       | NE                | NE                     | NE                   |
|      | 1,3,5-trimethylbenzene  | ND                       | 6,900             | 6,900                  | 81,000               |
|      | Vinyl chloride          | ND                       | 4.4               | 34                     | 950                  |
|      | Xylenes, total          | ND                       | 25,000            | 20,000                 | 560,000              |
|      | Anthracene              | ND                       | 350,000           | 110,000                | >Max                 |
|      | Acenaphthene            | ND                       | 70,000            | 21,000                 | 590,000              |
|      | Acenaphthylene          | ND                       | NE                | NE                     | NE                   |
|      | Benzo(a)anthracene      | ND                       | 21                | 170                    | 4,800                |
|      | Benzo(a)pyrene          | ND                       | 2.1               | 17                     | 490                  |
|      | Benzo(b)fluoranthene    | ND                       | 21                | 170                    | 4,900                |
|      | Benzo(g,h,i)perylene    | ND                       | NE                | NE                     | NE                   |
|      | Benzo(k)fluoranthene    | ND                       | 210               | 1,700                  | 49,000               |
|      | Chrysene                | ND                       | 2,100             | 17,000                 | 490,000              |
| PAHs | Dibenz(a,h)anthracene   | ND                       | 2.1               | 17                     | 490                  |
| ۵.   | Fluoranthene            | ND                       | 30,000            | 10,000                 | 280,000              |
|      | Fluorene                | ND                       | 47,000            | 14,000                 | 390,000              |
|      | Indeno(1,2,3-cd)pyrene  | ND                       | 21                | 170                    | 4,900                |
|      | Naphthalene             | 0.00307                  | 23                | 580                    | 16,000               |
|      | Phenanthrene            | ND                       | NE                | NE                     | NE                   |
|      | Pyrene                  | ND                       | 23,000            | 7,500                  | 210,000              |
|      | 1-methylnaphthalene     | ND                       | NE                | NE                     | NE                   |
|      | 2-methylnaphthalene     | 0.00382                  | NE                | NE                     | NE                   |
|      | 2-chloronaphthalene     | ND                       | NE                | NE                     | NE                   |
|      | Total PCBs              | NA                       | 0.59              | 4.9                    | 140                  |
|      | Diesel-Range Organics   | 12.5                     | 14,000            | 4,600                  | >Max                 |
|      | Residual-Range Organics | 29.8                     | 14,000            | 4,600                  | >Max                 |
|      | Gasoline-Range Organics | 2.68                     | 20,000            | 9,700                  | >Max                 |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix

interference. The analytical results will be biased high. Below detection NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this



#### Table 15: SUMMARY OF FORMER SHOPS GROUNDWATER CHEMICAL DATA

|        |  | Concentrati                         | on (mg/L)                                 |
|--------|--|-------------------------------------|---|
|        | Compound   | Former Shops Groundwater<br>Samples | DEQ RBCs for Groundwater<br>in Excavation |
|        | compound   | SH-176-W                            | Construction & Excavation                 |
|        | Antimony   | ND                                  | Worker<br>NE                              |
|        | Arsenic  | 0.0127                              | 6.3                                       |
|        | Beryllium  | ND                                  | 270                                       |
|        | Cadmium  | ND                                  | 130                                       |
|        | Chromium   | 0.0149                              | 9.4                                       |
| als    | Copper   | 0.00657 J                           | 5,400                                     |
| Metals | Lead<br>Nickel   | 0.00178 J<br>0.0076 J               | > S<br>> S                                |
|        | Selenium   | ND                                  | NE  |
|        | Silver   | ND                                  | 1,100                                     |
|        | Thallium   | ND                                  | NE  |
|        | Zinc   | 0.0102 J                            | NE  |
|        | Mercury  | ND                                  | >\$                                       |
|        | Acetone  | ND J4                               | NE  |
|        | Acrolein   | ND J4                               | NE  |
|        | Acrylonitrile  | ND                                  | 0.25                                      |
|        | Benzene  | ND                                  | 1.8                                       |
|        | Bromobenzene   | ND                                  | NE<br>0.45                                |
|        | Bromodichloromethane<br>Bromoform                      | ND<br>ND                            | 0.45                                      |
|        | Bromotorm  | ND                                  | 14  |
|        | N-butylbenzene   | ND                                  | NE  |
|        | Sec-butylbenzene                                       | ND                                  | NE  |
|        | Tert-Butylbenzene                                      | ND                                  | NE  |
|        | Carbon tetrachloride                                   | ND                                  | 1.8                                       |
|        | Chlorobenzene  | ND                                  | 10  |
|        | Chlorodibromomethane                                   | ND                                  | 0.61                                      |
|        | Chloroethane   | ND J4                               | 2,400                                     |
|        | Chloroform<br>Chloromethane                            | ND<br>ND                            | 0.72                                      |
|        | 2-Chlorotoluene  | ND                                  | NE  |
|        | 4-Chlorotoluene  | ND                                  | NE  |
|        | 1,2-dibromo-3-chloropropane                            | ND                                  | NE  |
|        | 1,2-dibromoethane                                      | ND                                  | NE  |
|        | Dibromomethane   | ND                                  | NE  |
|        | 1,2-dichlorobenzene                                    | ND                                  | 37  |
|        | 1,3-dichlorobenzene                                    | ND                                  | NE  |
|        | 1,4-dichlorobenzene<br>Dichlorodifluoromethane         | ND                                  | 1.5<br>NE                                 |
|        | 1,1-dichloroethane                                     | ND<br>ND                            | 10  |
|        | 1,2-dichloroethane                                     | ND                                  | NE  |
|        | 1,1-dichloroethene                                     | ND                                  | 44  |
|        | Cis-1,2-dichloroethene                                 | ND                                  | 18  |
|        | Trans-1,2-dichloroethene                               | ND                                  | 180                                       |
|        | 1,2-dichloropropane                                    | ND                                  | NE  |
| VOCs   | 1,1-dichloropropene                                    | ND                                  | NE  |
| >      | 1,3-dichloropropane                                    | ND                                  | NE  |
|        | Cis-1,3-dichloropropene<br>Trans-1,3-dichloropropene   | ND<br>ND                            | NE<br>NE                                  |
|        | 2,2-dichloropropane                                    | ND                                  | NE  |
|        | Di-isopropyl ether                                     | ND                                  | NE  |
|        | Ethylbenzene   | ND                                  | 4.5                                       |
|        | Hexachloro-1,3-butadiene                               | ND                                  | NE  |
|        | Isopropylbenzene                                       | ND                                  | 51  |
|        | P-isopropyltoluene                                     | ND                                  | NE  |
|        | 2-butanone (Mek)                                       | ND                                  | NE  |
|        | Methylene chloride<br>4-methyl-2-pentanone (Mibk)      | ND<br>ND                            | NE<br>NE                                  |
|        | 4-metnyi-2-pentanone (MIDK)<br>Methyl tert-butyl ether | ND                                  | 63  |
|        | Naphthalene  | ND                                  | 0.5                                       |
|        | N-propylbenzene  | ND                                  | NE  |
|        | Styrene  | ND                                  | 170                                       |
|        | 1,1,1,2-tetrachloroethane                              | ND                                  | NE  |
|        | 1,1,2,2-tetrachloroethane                              | ND                                  | NE  |
|        | 1,1,2-trichlorotrifluoroethane                         | ND                                  | >\$                                       |
|        | Tetrachloroethene                                      | ND                                  | 6   |
|        | Toluene  | 0.00103                             | 220                                       |
|        | 1,2,3-trichlorobenzene                                 | ND                                  | NE  |



#### Table 15: SUMMARY OF FORMER SHOPS GROUNDWATER CHEMICAL DATA

|          |                         | Concentration (mg/L)                            |  |  |  |  |
|----------|-------------------------|---|--|--|--|--|
| Compound |                         | Former Shops Groundwater<br>Samples<br>SH-176-W | DEQ RBCs for Groundwater<br>in Excavation<br>Construction & Excavation<br>Worker |  |  |  |
|          | 1,2,4-trichlorobenzene  | ND  | NE   |  |  |  |
|          | 1,1,1-trichloroethane   | ND  | 1,100  |  |  |  |
|          | 1,1,2-trichloroethane   | ND  | 0.049  |  |  |  |
|          | Trichloroethene         | ND  | 0.43   |  |  |  |
|          | Trichlorofluoromethane  | ND  | 160  |  |  |  |
|          | 1,2,3-trichloropropane  | ND  | NE   |  |  |  |
|          | 1,2,4-trimethylbenzene  | ND  | 6  |  |  |  |
|          | 1,2,3-trimethylbenzene  | ND  | NE   |  |  |  |
|          | 1,3,5-trimethylbenzene  | ND  | 8  |  |  |  |
|          | Vinyl chloride          | ND  | 0.96   |  |  |  |
|          | Xylenes, total          | ND  | 23   |  |  |  |
|          | Anthracene              | ND  | >\$  |  |  |  |
|          | Acenaphthene            | ND  | >\$  |  |  |  |
|          | Acenaphthylene          | ND  | NE   |  |  |  |
|          | Benzo(a)anthracene      | ND  | >\$  |  |  |  |
|          | Benzo(a)pyrene          | ND  | >\$  |  |  |  |
|          | Benzo(b)fluoranthene    | ND  | >\$  |  |  |  |
|          | Benzo(g,h,i)perylene    | ND  | NE   |  |  |  |
|          | Benzo(k)fluoranthene    | ND  | >\$  |  |  |  |
| s        | Chrysene                | ND  | >\$  |  |  |  |
| PAHs     | Dibenz(a,h)anthracene   | ND  | >\$  |  |  |  |
| Δ_       | Fluoranthene            | ND  | >\$  |  |  |  |
|          | Fluorene                | ND  | >S   |  |  |  |
|          | Indeno(1,2,3-cd)pyrene  | ND  | >\$  |  |  |  |
|          | Naphthalene             | 0.0000508 B J                                   | 0.5  |  |  |  |
|          | Phenanthrene            | ND  | NE   |  |  |  |
|          | Pyrene                  | ND  | >S   |  |  |  |
|          | 1-methylnaphthalene     | 0.0000278 J                                     | NE   |  |  |  |
|          | 2-methylnaphthalene     | 0.0000139 J                                     | NE   |  |  |  |
|          | 2-chloronaphthalene     | ND  | NE   |  |  |  |
|          | Diesel-Range Organics   | 0.159   | > S  |  |  |  |
|          | Residual-Range Organics | 0.083 J   | >S   |  |  |  |
|          | Gasoline-Range Organics | ND  | 14   |  |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for prec

J4: The associated batch QC was outside the established quality control range for accu

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based

Bold: Value exceeds the RBC for groundwater in excavation for the construction and exca



#### Table 16: SUMMARY OF MOBILE SHOP AREA SOIL CHEMICAL DATA

|        |  | Concentration (mg/kg)           Mobile Shop Area         DEQ RBCs for Soil Ingestion, Dermal |               |                                   |                  |  |  |
|--------|--|--|---------------|-----------------------------------|------------------|--|--|
|        | Compound   | Soil Samples   | Conta         | ct, and Inhalatic<br>Construction |                  |  |  |
|        |  | MO-173-14  | Occupational  | Worker                            | Worker           |  |  |
|        | Antimony   | ND   | NE            | NE                                | NE               |  |  |
|        | Arsenic  | 3.78   | 1.9           | 15                                | 420              |  |  |
|        | Beryllium  | ND   | 2,300         | 700                               | 19,000           |  |  |
|        | Cadmium<br>Chromium                              | ND<br>5.45   | 1,100<br>6.3  | 350<br>49                         | 9,700<br>1400    |  |  |
|        | Copper   | 1.04 J   | 47,000        | 14,000                            | 390,000          |  |  |
| Metals | Lead   | 1.39   | 800           | 800                               | 800              |  |  |
| Š      | Nickel   | 3.28   | 22,000        | 7,000                             | 190,000          |  |  |
|        | Selenium   | ND   | NE            | NE                                | NE               |  |  |
|        | Silver   | ND   | 5,800         | 1,800                             | 49,000           |  |  |
|        | Thallium   | ND   | NE            | NE                                | NE               |  |  |
|        | Zinc   | 7.4  | NE            | NE                                | NE               |  |  |
|        | Mercury  | 0.0443   | 350           | 110                               | 2,900            |  |  |
|        | Acetone  | NA   | NE            | NE                                | NE               |  |  |
|        | Acrylonitrile                                    | NA   | 4             | 40                                | 1,100            |  |  |
|        | Benzene  | NA   | 37            | 380                               | 11,000           |  |  |
|        | Bromobenzene                                     | NA   | NE            | NE                                | NE               |  |  |
|        | Bromodichloromethane<br>Bromoform                | NA   | 15            | 230                               | 6,300            |  |  |
|        | Bromotorm  | NA<br>NA   | 260<br>750    | 2,700<br>370                      | 74,000<br>10,000 |  |  |
|        | N-butylbenzene                                   | NA   | 750<br>NE     | 370<br>NE                         | 10,000<br>NE     |  |  |
|        | Sec-butylbenzene                                 | NA   | NE            | NE                                | NE               |  |  |
|        | Tert-Butylbenzene                                | NA   | NE            | NE                                | NE               |  |  |
|        | Carbon tetrachloride                             | NA   | 34            | 320                               | 8,900            |  |  |
|        | Chlorobenzene                                    | NA   | 8,700         | 4,700                             | 130,000          |  |  |
|        | Chlorodibromomethane                             | NA   | 17            | 210                               | 5,800            |  |  |
|        | Chloroethane                                     | NA   | NE            | NE                                | NE               |  |  |
|        | Chloroform                                       | NA   | 26            | 410                               | 11,000           |  |  |
|        | Chloromethane                                    | NA   | 25,000        | 25,000                            | 700,000          |  |  |
|        | 2-Chlorotoluene                                  | NA   | NE            | NE                                | NE               |  |  |
|        | 4-Chlorotoluene                                  | NA   | NE            | NE                                | NE               |  |  |
|        | 1,2-dibromo-3-chloropropane<br>1,2-dibromoethane | NA<br>NA   | NE<br>0.73    | NE<br>9                           | NE<br>250        |  |  |
|        | Dibromomethane                                   | NA   | NE            | 9<br>NE                           | 230<br>NE        |  |  |
|        | 1,2-dichlorobenzene                              | NA   | 36,000        | 20,000                            | 560,000          |  |  |
|        | 1,3-dichlorobenzene                              | NA   | NE            | NE                                | NE               |  |  |
|        | 1,4-dichlorobenzene                              | NA   | 64            | 1,300                             | 36,000           |  |  |
|        | Dichlorodifluoromethane                          | NA   | NE            | NE                                | NE               |  |  |
|        | 1,1-dichloroethane                               | NA   | 260           | 3,200                             | 89,000           |  |  |
|        | 1,2-dichloroethane                               | NA   | NE            | NE                                | NE               |  |  |
|        | 1,1-dichloroethene                               | NA   | 29,000        | 13,000                            | 370,000          |  |  |
|        | Cis-1,2-dichloroethene                           | NA   | 2,300         | 710                               | 20,000           |  |  |
|        | Trans-1,2-dichloroethene                         | NA   | 23,000        | 7,100                             | 200,000          |  |  |
|        | 1,2-dichloropropane                              | NA   | NE            | NE                                | NE               |  |  |
| VOCs   | 1,1-dichloropropene                              | NA   | NE            | NE                                | NE               |  |  |
| >      | 1,3-dichloropropane<br>Cis-1,3-dichloropropene   | NA   | NE            | NE                                | NE               |  |  |
|        | Trans-1,3-dichloropropene                        | NA<br>NA   | NE<br>NE      | NE<br>NE                          | NE<br>NE         |  |  |
|        | 2,2-dichloropropane                              | NA   | NE            | NE                                | NE               |  |  |
|        | Di-isopropyl ether                               | NA   | NE            | NE                                | NE               |  |  |
|        | Ethylbenzene                                     | NA   | 150           | 1,700                             | 49,000           |  |  |
|        | Hexachloro-1,3-butadiene                         | NA   | NE            | NE                                | NE               |  |  |
|        | Isopropylbenzene                                 | NA   | 57,000        | 27,000                            | 750,000          |  |  |
|        | P-isopropyltoluene                               | NA   | NE            | NE                                | NE               |  |  |
|        | 2-butanone (Mek)                                 | NA   | NE            | NE                                | NE               |  |  |
|        | Methylene chloride                               | NA   | NE            | NE                                | NE               |  |  |
|        | 4-methyl-2-pentanone (Mibk)                      | NA   | NE            | NE                                | NE               |  |  |
|        | Methyl tert-butyl ether                          | NA   | 1,100         | 12,000                            | 320,000          |  |  |
|        | Naphthalene                                      | NA   | 23            | 580                               | 16,000           |  |  |
|        | N-propylbenzene<br>Styropo                       | NA   | NE            | NE                                | NE               |  |  |
|        | Styrene<br>1,1,1,2-tetrachloroethane             | NA<br>NA   | 130,000<br>NE | 56,000<br>NE                      | >Max<br>NE       |  |  |
|        | 1,1,2,2-tetrachloroethane                        | NA<br>NA   | NE            | NE                                | NE<br>NE         |  |  |
|        | 1,1,2,2-terrachioroethane                        | NA   | NE            | NE                                | NE               |  |  |
|        | Tetrachloroethene                                | NA   | 1,000         | 1,800                             | 50,000           |  |  |
|        | Toluene  | NA   | 88,000        | 28,000                            | 770,000          |  |  |
|        | 1,2,3-trichlorobenzene                           | NA   | NE            | 20,000<br>NE                      | NE               |  |  |
|        | 1,2,4-trichlorobenzene                           | NA   | NE            | NE                                | NE               |  |  |



#### Table 16: SUMMARY OF MOBILE SHOP AREA SOIL CHEMICAL DATA

|      |                         |                  | Concentration           | (mg/kg)                |                      |
|------|-------------------------|------------------|-------------------------|------------------------|----------------------|
|      |                         | Mobile Shop Area |                         | or Soil Ingestion      | , Dermal             |
|      | Compound                | Soil Samples     | Contact, and Inhalation |                        |                      |
|      |                         | MO-173-14        | Occupational            | Construction<br>Worker | Excavation<br>Worker |
|      | 1,1,1-trichloroethane   | NA               | 870,000                 | 470,000                | >Max                 |
|      | 1,1,2-trichloroethane   | NA               | 26                      | 54                     | 1,500                |
|      | Trichloroethene         | NA               | 51                      | 130                    | 3,700                |
|      | Trichlorofluoromethane  | NA               | 130,000                 | 69,000                 | >Max                 |
|      | 1,2,3-trichloropropane  | NA               | NE                      | NE                     | NE                   |
|      | 1,2,4-trimethylbenzene  | NA               | 6,900                   | 6,900                  | 81,000               |
|      | 1,2,3-trimethylbenzene  | NA               | NE                      | NE                     | NE                   |
|      | 1,3,5-trimethylbenzene  | NA               | 6,900                   | 6,900                  | 81,000               |
|      | Vinyl chloride          | NA               | 4.4                     | 34                     | 950                  |
|      | Xylenes, total          | NA               | 25,000                  | 20,000                 | 560,000              |
|      | Anthracene              | ND               | 350,000                 | 110,000                | >Max                 |
|      | Acenaphthene            | ND               | 70,000                  | 21,000                 | 590,000              |
|      | Acenaphthylene          | ND               | NE                      | NE                     | NE                   |
|      | Benzo(a)anthracene      | ND               | 21                      | 170                    | 4,800                |
|      | Benzo(a)pyrene          | ND               | 2.1                     | 17                     | 490                  |
|      | Benzo(b)fluoranthene    | ND               | 21                      | 170                    | 4,900                |
|      | Benzo(g,h,i)perylene    | ND               | NE                      | NE                     | NE                   |
|      | Benzo(k)fluoranthene    | ND               | 210                     | 1,700                  | 49,000               |
| s    | Chrysene                | ND               | 2,100                   | 17,000                 | 490,000              |
| PAHs | Dibenz(a,h)anthracene   | ND               | 2.1                     | 17                     | 490                  |
| Δ_   | Fluoranthene            | ND               | 30,000                  | 10,000                 | 280,000              |
|      | Fluorene                | ND               | 47,000                  | 14,000                 | 390,000              |
|      | Indeno(1,2,3-cd)pyrene  | ND               | 21                      | 170                    | 4,900                |
|      | Naphthalene             | ND               | 23                      | 580                    | 16,000               |
|      | Phenanthrene            | ND               | NE                      | NE                     | NE                   |
|      | Pyrene                  | ND               | 23,000                  | 7,500                  | 210,000              |
|      | 1-methylnaphthalene     | ND               | NE                      | NE                     | NE                   |
|      | 2-methylnaphthalene     | ND               | NE                      | NE                     | NE                   |
|      | 2-chloronaphthalene     | ND               | NE                      | NE                     | NE                   |
|      | Total PCBs              | NA               | 0.59                    | 4.9                    | 140                  |
|      | Diesel-Range Organics   | ND               | 14,000                  | 4,600                  | >Max                 |
|      | Residual-Range Organics | ND               | 14,000                  | 4,600                  | >Max                 |
|      | Gasoline-Range Organics | NA               | 20,000                  | 9,700                  | >Max                 |
|      |                         | -                |                         |                        |                      |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

 $\ensuremath{\mathsf{V3}}\xspace$  : The internal standard exhibited poor recovery due to sample

matrix interference. The analytical results will be biased high. NE: Value not established.

> Max: The constituent rbc for this pathway is calculated as greater than 1,000,000 mg/kg

Bold: Value exceeds the RBC for soil ingestion, dermal contact, and inhalation for the occupational receptor scena



#### Table 17: SUMMARY OF MOBILE SHOPS GROUNDWATER CHEMICAL DATA

|  |          | DEO PRCs for Croundwater |  |             |
|--|----------|--------------------------|--|-------------|
| Compound                                   | Mobile   | Shops Groundwate         | DEQ RBCs for Groundwater<br>in Excavation<br>Construction & Excavation |             |
|  | MO-171-W | MO-173-W                 | MO-175-W   | Worker      |
| Antimony                                   | NA       | ND                       | 0.00148 J  | NE          |
| Arsenic                                    | NA       | 0.000956 J               | 0.00783  | 6.3         |
| Beryllium                                  | NA       | ND                       | 0.00104 J  | 270         |
| Cadmium                                    | NA       | ND                       | 0.000799 J   | 130         |
| Chromium                                   | NA       | 0.00749 J                | 0.117  | 9.4         |
| Copper                                     | NA       | 0.00553 J                | 0.103  | 5,400       |
| Lead<br>Nickel                             | NA       | 0.00172 J                | 0.0183   | >\$         |
| INICKCI                                    | NA       | 0.00634 J                | 0.177  | >5          |
| Selenium<br>Silver                         | NA<br>NA | 0.00924 J<br>ND          | ND<br>ND   | NE<br>1,100 |
|  |          |                          |  |             |
| Thallium<br>—:                             | NA       | ND                       | NA   | NE          |
| Zinc                                       | NA       | 0.952                    | 0.197  | NE          |
| Mercury                                    | NA       | ND                       | 0.0000963 B J  | > \$        |
| Acetone                                    | NA       | ND J4                    | ND J J4  | NE          |
| Acrolein                                   | NA       | ND J4                    | ND J4  | NE          |
| Acrylonitrile                              | NA       | ND                       | ND   | 0.25        |
| Benzene                                    | NA       | ND                       | ND   | 1.8         |
| Bromobenzene                               | NA       | ND                       | ND   | NE          |
| Bromodichloromethane                       | NA       | ND                       | ND   | 0.45        |
| Bromoform                                  | NA       | ND                       | ND   | 14          |
| Bromomethane                               | NA       | ND                       | ND   | 1.2         |
| N-butylbenzene                             | NA       | ND                       | ND   | NE          |
| Sec-butylbenzene                           | NA       | ND                       | ND   | NE          |
| Tert-Butylbenzene                          | NA       | ND                       | ND   | NE          |
| Carbon tetrachloride                       | NA       | ND                       | ND   | 1.8         |
| Chlorobenzene                              | NA       | ND                       | ND   | 10          |
| Chlorodibromomethane                       | NA       | ND                       | ND   | 0.61        |
| Chloroethane                               | NA       | ND J4                    | ND   | 2,400       |
| Chloroform                                 | NA       | ND                       | ND   | 0.72        |
| Chloromethane                              | NA       | ND                       | ND   | 22          |
| 2-Chlorotoluene<br>4-Chlorotoluene         | NA       | ND                       | ND   | NE          |
|  | NA<br>NA | ND                       | ND   | NE<br>NE    |
| 1,2-dibromo-3-chloropropane                | NA       | ND<br>ND                 | ND<br>ND   | NE          |
| 1,2-dibromoethane<br>Dibromomethane        | NA       |                          | ND   | NE          |
|  | NA       | ND<br>ND                 | ND   |             |
| 1,2-dichlorobenzene<br>1,3-dichlorobenzene | NA       | ND                       | ND   | 37<br>NE    |
| 1,4-dichlorobenzene                        | NA       | ND                       | ND   | 1.5         |
| Dichlorodifluoromethane                    | NA       | ND                       | ND   | NE          |
| 1,1-dichloroethane                         | NA       | ND                       | ND   | 10          |
| 1,2-dichloroethane                         | NA       | ND                       | ND   | NE          |
| 1,1-dichloroethene                         | NA       | ND                       | ND   | 44          |
| Cis-1,2-dichloroethene                     | NA       | ND                       | ND   | 18          |
| Trans-1,2-dichloroethene                   | NA       | ND                       | ND   | 180         |
| 1,2-dichloropropane                        | NA       | ND                       | ND   | NE          |
|  | NA       | ND                       | ND   | NE          |
| 1,1-dichloropropene<br>1,3-dichloropropane | NA       | ND                       | ND   | NE          |
| Cis-1,3-dichloropropene                    | NA       | ND                       | ND   | NE          |
| Trans-1,3-dichloropropene                  | NA       | ND                       | ND   | NE          |
| 2,2-dichloropropane                        | NA       | ND                       | ND   | NE          |
| Di-isopropyl ether                         | NA       | ND                       | ND   | NE          |
| Ethylbenzene                               | NA       | ND                       | ND   | 4.5         |
| Hexachloro-1,3-butadiene                   | NA       | ND                       | ND   | NE          |
| Isopropylbenzene                           | NA       | ND                       | ND   | 51          |
| P-isopropyltoluene                         | NA       | ND                       | ND   | NE          |
| 2-butanone (Mek)                           | NA       | ND                       | ND   | NE          |
| Methylene chloride                         | NA       | ND                       | ND   | NE          |
| 4-methyl-2-pentanone (Mibk)                | NA       | ND                       | ND   | NE          |
| Methyl tert-butyl ether                    | NA       | ND                       | ND   | 63          |
| Naphthalene                                | NA       | ND                       | ND   | 0.5         |
| N-propylbenzene                            | NA       | ND                       | ND   | NE          |
| Styrene                                    | NA       | ND                       | ND   | 170         |
| 1,1,1,2-tetrachloroethane                  | NA       | ND                       | ND   | NE          |
| 1,1,2,2-tetrachloroethane                  | NA       | ND                       | ND   | NE          |
| 1,1,2-trichlorotrifluoroethane             | NA       | ND                       | ND   | >\$         |
| Tetrachloroethene                          | NA       | ND                       | ND   | 6           |
| Toluene                                    | NA       | ND                       | ND   | 220         |
| 1,2,3-trichlorobenzene                     | NA       | ND                       | ND   | NE          |



| Table 17: SUMMARY OF MOBILE SHOPS GROUNDWATER CHEMICAL DATA |
|---|
|   |

|  |                | Concentration (mg/l) |                   |               |   |  |  |  |  |  |  |  |
|--|----------------|----------------------|-------------------|---------------|---|--|--|--|--|--|--|--|
| Co   | mpound         | Mobile               | Shops Groundwater | Samples       | DEQ RBCs for Groundwater<br>in Excavation |  |  |  |  |  |  |  |
|  |                | MO-171-W             | MO-173-W          | MO-175-W      | Construction & Excavation<br>Worker       |  |  |  |  |  |  |  |
| 1,2,4-trich  | lorobenzene    | NA                   | ND                | ND            | NE  |  |  |  |  |  |  |  |
| 1,1,1-trich  | loroethane     | NA                   | ND                | ND            | 1,100                                     |  |  |  |  |  |  |  |
| 1,1,2-trich  | loroethane     | NA                   | ND                | ND            | 0.049                                     |  |  |  |  |  |  |  |
| Trichloroe   | thene          | NA                   | ND                | ND            | 0.43                                      |  |  |  |  |  |  |  |
| Trichlorofl  | uoromethane    | NA                   | ND                | ND            | 160                                       |  |  |  |  |  |  |  |
| 1,2,3-trich  | loropropane    | NA                   | ND                | ND            | NE  |  |  |  |  |  |  |  |
| 1,2,4-trime  | ethylbenzene   | NA                   | ND                | ND            | 6   |  |  |  |  |  |  |  |
| 1,2,3-trime  | ethylbenzene   | NA                   | ND                | ND            | NE  |  |  |  |  |  |  |  |
| 1,3,5-trime  | ethylbenzene   | NA                   | ND                | ND            | 8   |  |  |  |  |  |  |  |
| Vinyl chlo   | ride           | NA                   | ND                | ND            | 0.96                                      |  |  |  |  |  |  |  |
| Xylenes, to  | otal           | NA                   | ND                | ND            | 23  |  |  |  |  |  |  |  |
| Anthracen  | e              | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Acenaphth  | iene           | ND                   | ND                | ND            | >S  |  |  |  |  |  |  |  |
| Acenaphth  | nylene         | ND                   | ND                | ND            | NE  |  |  |  |  |  |  |  |
| Benzo(a)ar   | nthracene      | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Benzo(a)py   | yrene          | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Benzo(b)fl   | uoranthene     | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Benzo(g,h,   | ,i)perylene    | ND                   | ND                | ND            | NE  |  |  |  |  |  |  |  |
| Benzo(k)fl   | uoranthene     | ND                   | ND                | ND            | >S  |  |  |  |  |  |  |  |
| Chrysene   |                | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Here and Her | n)anthracene   | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| - Fluoranthe   | ene            | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Fluorene   |                | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Indeno(1,2   | 2,3-cd)pyrene  | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| Naphthale  | ne             | 0.0000509 B J        | 0.0000472 B J     | 0.0000503 B J | 0.5                                       |  |  |  |  |  |  |  |
| Phenanthr  | ene            | ND                   | ND                | ND            | NE  |  |  |  |  |  |  |  |
| Pyrene   |                | ND                   | ND                | ND            | >\$                                       |  |  |  |  |  |  |  |
| 1-methylna   | aphthalene     | ND                   | ND                | 0.0000162 J   | NE  |  |  |  |  |  |  |  |
| 2-methylna   | aphthalene     | ND                   | ND                | 0.00002 J     | NE  |  |  |  |  |  |  |  |
| 2-chlorona   | phthalene      | ND                   | ND                | ND            | NE  |  |  |  |  |  |  |  |
| Diesel-R   | ange Organics  | ND                   | ND                | 1.44          | >\$                                       |  |  |  |  |  |  |  |
| Residual-I   | Range Organics | ND                   | ND                | 2.88          | >\$                                       |  |  |  |  |  |  |  |
| Gasoline-  | Range Organics | NA                   | ND                | ND            | 14  |  |  |  |  |  |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the rbc for groundwater in excavation for the construction and excavation worker



# Table 18: SUMMARY OF SOUTH JORDAN POINT DEBRIS AREA SOIL CHEMICAL DATA

|        |  |            |              |               | Concentrati | on (mg/kg)    |  |                            |
|--------|--|------------|--------------|---------------|-------------|---------------|--|----------------------------|
|        | Compound                                   | South Jord | lan Point De | ebris Area So | oil Samples |               | or Soil Ingestion                            |                            |
|        | Compound                                   | JP-188-6   | JP-189-7     | JP-190-7      | JP-191-8    | Occupational  | ict, and Inhalatio<br>Construction<br>Worker | DN<br>Excavation<br>Worker |
|        | Antimony                                   | ND         | ND           | ND            | NA          | NE            | NE   | NE                         |
|        | Arsenic                                    | 2.39 J     | 4.66         | 7.07 J        | NA          | 1.9           | 15   | 420                        |
|        | Beryllium                                  | ND         | 0.146 J      | 0.32 J        | NA          | 2,300         | 700  | 19,000                     |
|        | Cadmium                                    | ND         | ND           | 0.391 J       | NA          | 1,100         | 350  | 9,700                      |
|        | Chromium                                   | 19.7       | 15.6         | 38.3          | NA          | 6.3           | 49   | 1400                       |
| als    | Copper                                     | 19.5       | 10.6         | 44            | NA          | 47,000        | 14,000                                       | 390,000                    |
| Metals | Lead                                       | 8.66       | 6.38         | 35.8          | NA          | 800           | 800  | 800                        |
|        | Nickel                                     | 22.4       | 13.2         | 34            | NA          | 22,000<br>NE  | 7,000<br>NE                                  | 190,000                    |
|        | Selenium<br>Silver                         | ND<br>ND   | ND<br>ND     | ND<br>ND      | NA<br>NA    | 5,800         | 1,800  | NE<br>49,000               |
|        | Thallium                                   | ND         | ND           | ND            | NA          | NE            | NE   | +3,000<br>NE               |
|        | Zinc                                       | 52.3       | 37.1         | 130           | NA          | NE            | NE   | NE                         |
|        | Mercury                                    | 0.0223 J   | 0.0142       | 0.058 J       | NA          | 350           | 110  | 2,900                      |
|        | Acetone                                    | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Acrylonitrile                              | NA         | NA           | NA            | NA          | 4             | 40   | 1,100                      |
|        | Benzene                                    | NA         | NA           | NA            | NA          | 37            | 380  | 11,000                     |
|        | Bromobenzene                               | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Bromodichloromethane                       | NA         | NA           | NA            | NA          | 15            | 230  | 6,300                      |
|        | Bromoform                                  | NA         | NA           | NA            | NA          | 260           | 2,700  | 74,000                     |
|        | Bromomethane                               | NA         | NA           | NA            | NA          | 750           | 370  | 10,000                     |
|        | N-butylbenzene                             | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Sec-butylbenzene                           | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Tert-Butylbenzene                          | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Carbon tetrachloride                       | NA         | NA           | NA            | NA          | 34            | 320  | 8,900                      |
|        | Chlorobenzene                              | NA         | NA           | NA            | NA          | 8,700         | 4,700  | 130,000                    |
|        | Chlorodibromomethane                       | NA         | NA           | NA            | NA          | 17            | 210  | 5,800                      |
|        | Chloroethane                               | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Chloroform                                 | NA         | NA           | NA            | NA          | 26            | 410  | 11,000                     |
|        | Chloromethane                              | NA         | NA           | NA            | NA          | 25,000        | 25,000                                       | 700,000                    |
|        | 2-Chlorotoluene                            | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 4-Chlorotoluene                            | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 1,2-dibromo-3-chloropropane                | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 1,2-dibromoethane                          | NA         | NA           | NA            | NA          | 0.73          | 9  | 250                        |
|        | Dibromomethane                             | NA         | NA           | NA            | NA          | NE<br>26.000  | NE   | NE                         |
|        | 1,2-dichlorobenzene<br>1,3-dichlorobenzene | NA         | NA<br>NA     | NA            | NA          | 36,000        | 20,000                                       | 560,000                    |
|        | 1,4-dichlorobenzene                        | NA<br>NA   | NA           | NA<br>NA      | NA<br>NA    | NE<br>64      | NE<br>1,300                                  | NE<br>36,000               |
|        | Dichlorodifluoromethane                    | NA         | NA           | NA            | NA          | NE            | NE   | 36,000<br>NE               |
|        | 1,1-dichloroethane                         | NA         | NA           | NA            | NA          | 260           | 3,200  | 89,000                     |
|        | 1,2-dichloroethane                         | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 1,1-dichloroethene                         | NA         | NA           | NA            | NA          | 29,000        | 13,000                                       | 370,000                    |
|        | Cis-1,2-dichloroethene                     | NA         | NA           | NA            | NA          | 2,300         | 710  | 20,000                     |
|        | Trans-1,2-dichloroethene                   | NA         | NA           | NA            | NA          | 23,000        | 7,100  | 200,000                    |
|        | 1,2-dichloropropane                        | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
| (0     | 1,1-dichloropropene                        | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
| VOCs   | 1,3-dichloropropane                        | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
| >      | Cis-1,3-dichloropropene                    | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Trans-1,3-dichloropropene                  | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 2,2-dichloropropane                        | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Di-isopropyl ether                         | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Ethylbenzene                               | NA         | NA           | NA            | NA          | 150           | 1,700  | 49,000                     |
|        | Hexachloro-1,3-butadiene                   | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Isopropylbenzene                           | NA         | NA           | NA            | NA          | 57,000        | 27,000                                       | 750,000                    |
|        | P-isopropyltoluene                         | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 2-butanone (Mek)                           | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Methylene chloride                         | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 4-methyl-2-pentanone (Mibk)                | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Methyl tert-butyl ether                    | NA         | NA           | NA            | NA          | 1,100         | 12,000                                       | 320,000                    |
|        | Naphthalene<br>N-propylbenzene             | NA         | NA           | NA            | NA          | 23            | 580  | 16,000                     |
|        | N-propylbenzene<br>Styrene                 | NA<br>NA   | NA<br>NA     | NA<br>NA      | NA<br>NA    | NE<br>130,000 | NE<br>56,000                                 | NE<br>>Max                 |
|        | 1,1,1,2-tetrachloroethane                  | NA<br>NA   | NA<br>NA     | NA            | NA<br>NA    | 130,000<br>NE | 56,000<br>NE                                 | > Max<br>NE                |
|        | 1,1,2,2-tetrachloroethane                  | NA<br>NA   | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | 1,1,2-trichlorotrifluoroethane             | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | Tetrachloroethene                          | NA         | NA           | NA            | NA          | 1,000         | 1,800  | 50,000                     |
|        | Toluene                                    | NA         | NA           | NA            | NA          | 88,000        | 28,000                                       | 770,000                    |
|        | 1,2,3-trichlorobenzene                     | NA         | NA           | NA            | NA          | NE            | 20,000<br>NE                                 | NE                         |
|        | 1,2,4-trichlorobenzene                     | NA         | NA           | NA            | NA          | NE            | NE   | NE                         |
|        | ·,_, · alemorobenzene                      |            |              |               |             | 112           | I NE   |                            |



#### Table 18: SUMMARY OF SOUTH JORDAN POINT DEBRIS AREA SOIL CHEMICAL DATA

|      |                         |            |              |              | Concentrati | on (mg/kg)   |  |                      |
|------|-------------------------|------------|--------------|--------------|-------------|--------------|--|----------------------|
|      | Compound                | South Jord | lan Point De | bris Area So | il Samples  | •            | or Soil Ingestion<br>ct, and Inhalatio |                      |
|      |                         | JP-188-6   | JP-189-7     | JP-190-7     | JP-191-8    | Occupational | Construction<br>Worker                 | Excavation<br>Worker |
|      | 1,1,1-trichloroethane   | NA         | NA           | NA           | NA          | 870,000      | 470,000                                | >Max                 |
|      | 1,1,2-trichloroethane   | NA         | NA           | NA           | NA          | 26           | 54                                     | 1,500                |
|      | Trichloroethene         | NA         | NA           | NA           | NA          | 51           | 130                                    | 3,700                |
|      | Trichlorofluoromethane  | NA         | NA           | NA           | NA          | 130,000      | 69,000                                 | >Max                 |
|      | 1,2,3-trichloropropane  | NA         | NA           | NA           | NA          | NE           | NE                                     | NE                   |
|      | 1,2,4-trimethylbenzene  | NA         | NA           | NA           | NA          | 6,900        | 6,900                                  | 81,000               |
|      | 1,2,3-trimethylbenzene  | NA         | NA           | NA           | NA          | NE           | NE                                     | NE                   |
|      | 1,3,5-trimethylbenzene  | NA         | NA           | NA           | NA          | 6,900        | 6,900                                  | 81,000               |
|      | Vinyl chloride          | NA         | NA           | NA           | NA          | 4.4          | 34                                     | 950                  |
|      | Xylenes, total          | NA         | NA           | NA           | NA          | 25,000       | 20,000                                 | 560,000              |
|      | Anthracene              | 0.0276     | ND           | 0.00726 J    | ND          | 350,000      | 110,000                                | >Max                 |
|      | Acenaphthene            | 0.00559 J  | 0.00132 J    | 0.00393 J    | ND          | 70,000       | 21,000                                 | 590,000              |
|      | Acenaphthylene          | 0.00429 J  | 0.00297 J    | 0.137        | ND          | NE           | NE                                     | NE                   |
|      | Benzo(a)anthracene      | 0.00504 J  | ND           | 0.0131 J     | ND          | 21           | 170                                    | 4,800                |
|      | Benzo(a)pyrene          | 0.00173 J  | ND           | ND           | ND          | 2.1          | 17                                     | 490                  |
|      | Benzo(b)fluoranthene    | 0.00965 J  | ND           | 0.00254 J    | ND          | 21           | 170                                    | 4,900                |
|      | Benzo(g,h,i)perylene    | 0.0539     | ND           | 0.00226 J    | ND          | NE           | NE                                     | NE                   |
|      | Benzo(k)fluoranthene    | 0.00234 J  | ND           | ND           | ND          | 210          | 1,700                                  | 49,000               |
|      | Chrysene                | 0.0148     | ND           | 0.0116 J     | ND          | 2,100        | 17,000                                 | 490,000              |
| rans | Dibenz(a,h)anthracene   | ND         | ND           | ND           | ND          | 2.1          | 17                                     | 490                  |
| Ľ    | Fluoranthene            | 0.0287     | 0.00164 J    | 0.0262       | ND          | 30,000       | 10,000                                 | 280,000              |
|      | Fluorene                | 0.00858 J  | ND           | 0.00271 J    | ND          | 47,000       | 14,000                                 | 390,000              |
|      | Indeno(1,2,3-cd)pyrene  | 0.00191 J  | ND           | ND           | ND          | 21           | 170                                    | 4,900                |
|      | Naphthalene             | 0.0547     | 0.00839 J    | 1.12         | ND          | 23           | 580                                    | 16,000               |
|      | Phenanthrene            | 0.0815     | 0.00124 J    | 0.0643       | ND          | NE           | NE                                     | NE                   |
|      | Pyrene                  | 0.0406     | 0.00105 J    | 0.0188 J     | ND          | 23,000       | 7,500                                  | 210,000              |
|      | 1-methylnaphthalene     | 0.0281 J   | ND           | 0.0598 J     | ND          | NE           | NE                                     | NE                   |
|      | 2-methylnaphthalene     | 0.0317 J   | ND           | 0.0634 J     | ND          | NE           | NE                                     | NE                   |
|      | 2-chloronaphthalene     | ND         | ND           | ND           | ND          | NE           | NE                                     | NE                   |
|      | Total PCBs              | NA         | NA           | ND           | NA          | 0.59         | 4.9                                    | 140                  |
|      | Diesel-Range Organics   | 48         | NA           | NA           | ND          | 14,000       | 4,600                                  | >Max                 |
|      | Residual-Range Organics | 1,980      | NA           | NA           | ND          | 14,000       | 4,600                                  | >Max                 |
|      | Gasoline-Range Organics | NA         | NA           | NA           | ND          | 20,000       | 9,700                                  | >Max                 |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The

analytical results will be biased high. Below detection limit (BDL) results will be unaffected. NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



#### Table 19: SUMMARY OF JORDAN POINT GROUNDWATER CHEMICAL DATA

|        | Compound                       | Jordan Point Gro | Concentration<br>undwater Samples | DEQ RBCs for Groundwate             |
|--------|--------------------------------|------------------|-----------------------------------|-------------------------------------|
|        |                                | JP-188-W         | JP-191-W                          | Construction & Excavation<br>Worker |
|        | Antimony                       | ND               | ND                                | NE                                  |
|        | Arsenic                        | 0.00613          | 0.00626                           | 6.3                                 |
|        | Beryllium                      | ND               | ND                                | 270                                 |
|        | Cadmium                        | ND               | ND                                | 130                                 |
|        | Chromium                       | 0.08             | 0.0147                            | 9.4                                 |
| s      | Copper                         | 0.11             | 0.00712 J                         | 5,400                               |
| Metals | Lead                           | 0.00424          | 0.00437                           | > S                                 |
| Σ      | Nickel                         | 0.0379           | 0.00867 J                         | > \$                                |
|        | Selenium                       | ND               | ND                                | NE                                  |
|        | Silver                         | ND               | ND                                | 1,100                               |
|        | Thallium                       | ND               | ND                                | ND                                  |
|        | Zinc                           | 0.0267 J         | 0.0162 J                          | NE                                  |
|        | Mercury                        | 0.0000514 J      | 0.000102 J                        | >\$                                 |
|        | Acetone                        | ND               | ND                                | NE                                  |
|        | Acrolein                       | ND               | ND                                | NE                                  |
|        | Acrylonitrile                  | ND               | ND                                | 0.25                                |
|        | Benzene                        | ND               | ND                                | 1.8                                 |
|        | Bromobenzene                   | ND               | ND                                | NE                                  |
|        | Bromodichloromethane           | ND               | ND                                | 0.45                                |
|        | Bromoform                      | ND               | ND                                | 14                                  |
|        | Bromomethane                   | ND               | ND                                | 1.2                                 |
|        | N-butylbenzene                 | ND               | ND                                | NE                                  |
|        | Sec-butylbenzene               | ND               | ND                                | NE                                  |
|        | Tert-Butylbenzene              | ND               | ND                                | NE                                  |
|        | Carbon tetrachloride           | ND               | ND                                | 1.8                                 |
|        | Chlorobenzene                  | ND               | ND                                | 10                                  |
|        | Chlorodibromomethane           | ND               | ND                                | 0.61                                |
|        | Chloroethane                   | ND               | ND                                | 2,400                               |
|        | Chloroform                     | ND               | ND                                | 0.72                                |
|        | Chloromethane                  | ND               | ND                                | 22                                  |
|        | 2-Chlorotoluene                | ND               | ND                                | NE                                  |
|        | 4-Chlorotoluene                | ND               | ND                                | NE                                  |
|        | 1,2-dibromo-3-chloropropane    | ND               | ND                                | NE                                  |
|        | 1,2-dibromoethane              | ND               | ND                                | NE                                  |
|        | Dibromomethane                 | ND               | ND                                | NE                                  |
|        | 1,2-dichlorobenzene            | ND               | ND                                | 37                                  |
|        | 1,3-dichlorobenzene            | ND               | ND                                | NE                                  |
|        | 1,4-dichlorobenzene            | ND               | ND                                | 1.5                                 |
|        | Dichlorodifluoromethane        | ND               | ND                                | NE                                  |
|        | 1,1-dichloroethane             | ND               | ND                                | 10                                  |
|        | 1,2-dichloroethane             | ND               | ND                                | NE                                  |
|        | 1,1-dichloroethene             | ND               | ND                                | 44                                  |
|        | Cis-1,2-dichloroethene         | ND               | ND                                | 18                                  |
|        | Trans-1,2-dichloroethene       | ND               | ND                                | 180                                 |
|        | 1,2-dichloropropane            | ND               | ND                                | NE                                  |
| VOCs   | 1,1-dichloropropene            | ND               | ND                                | NE                                  |
| >      | 1,3-dichloropropane            | ND               | ND                                | NE                                  |
|        | Cis-1,3-dichloropropene        | ND               | ND                                | NE                                  |
|        | Trans-1,3-dichloropropene      | ND               | ND                                | NE                                  |
|        | 2,2-dichloropropane            | ND               | ND                                | NE                                  |
|        | Di-isopropyl ether             | ND               | ND                                | NE                                  |
|        | Ethylbenzene                   | ND               | ND                                | 4.5                                 |
|        | Hexachloro-1,3-butadiene       | ND               | ND                                | NE                                  |
|        | Isopropylbenzene               | ND               | ND                                | 51                                  |
|        | P-isopropyltoluene             | ND               | ND                                | NE                                  |
|        | 2-butanone (Mek)               | ND               | ND                                | NE                                  |
|        | Methylene chloride             | ND               | ND                                | NE                                  |
|        | 4-methyl-2-pentanone (Mibk)    | ND               | ND                                | NE                                  |
|        | Methyl tert-butyl ether        | ND               | ND                                | 63                                  |
|        | Naphthalene                    | ND               | ND                                | 0.5                                 |
|        | N-propylbenzene                | ND               | ND                                | NE<br>170                           |
|        | Styrene                        | ND               | ND                                | 170                                 |
|        | 1,1,1,2-tetrachloroethane      | ND               | ND                                | NE                                  |
|        | 1,1,2,2-tetrachloroethane      | ND               | ND                                | NE                                  |
|        | 1,1,2-trichlorotrifluoroethane | ND<br>ND         | ND<br>ND                          | > S<br>6                            |
|        |                                | NU               | NU                                | h                                   |
|        | Tetrachloroethene<br>Toluene   | ND               | ND                                | 220                                 |



#### Table 19: SUMMARY OF JORDAN POINT GROUNDWATER CHEMICAL DATA

|      |                         |                  | Concentration    | (mg/L)                                    |
|------|-------------------------|------------------|------------------|---|
|      | Compound                | Jordan Point Gro | undwater Samples | DEQ RBCs for Groundwater<br>in Excavation |
|      |                         | JP-188-W         | JP-191-W         | Construction & Excavation<br>Worker       |
|      | 1,2,4-trichlorobenzene  | ND               | ND               | NE  |
|      | 1,1,1-trichloroethane   | ND               | ND               | 1,100                                     |
|      | 1,1,2-trichloroethane   | ND               | ND               | 0.049                                     |
|      | Trichloroethene         | ND               | ND               | 0.43                                      |
|      | Trichlorofluoromethane  | ND               | ND               | 160                                       |
|      | 1,2,3-trichloropropane  | ND               | ND               | NE  |
|      | 1,2,4-trimethylbenzene  | ND               | ND               | 6   |
|      | 1,2,3-trimethylbenzene  | ND               | ND               | NE  |
|      | 1,3,5-trimethylbenzene  | ND               | ND               | 8   |
|      | Vinyl chloride          | ND               | ND               | 0.96                                      |
|      | Xylenes, total          | ND               | ND               | 23  |
|      | Anthracene              | ND               | ND               | >\$                                       |
|      | Acenaphthene            | ND               | ND               | > 5                                       |
|      | Acenaphthylene          | ND               | ND               | NE  |
|      | Benzo(a)anthracene      | ND               | ND               | > 5                                       |
|      | Benzo(a)pyrene          | ND               | ND               | >\$                                       |
|      | Benzo(b)fluoranthene    | ND               | ND               | > \$                                      |
|      | Benzo(g,h,i)perylene    | 0.00000474 B J   | ND               | NE  |
|      | Benzo(k)fluoranthene    | ND               | ND               | > 5                                       |
|      | Chrysene                | ND               | ND               | >\$                                       |
| PAHs | Dibenz(a,h)anthracene   | ND               | ND               | >5  |
| д_   | Fluoranthene            | ND               | ND               | >\$                                       |
|      | Fluorene                | ND               | ND               | > \$                                      |
|      | Indeno(1,2,3-cd)pyrene  | ND               | ND               | >\$                                       |
|      | Naphthalene             | 0.0000937 B J    | 0.0000543 B J    | 0.5                                       |
|      | Phenanthrene            | ND               | ND               | NE  |
|      | Pyrene                  | ND               | ND               | > 5                                       |
|      | 1-methylnaphthalene     | ND               | ND               | NE  |
|      | 2-methylnaphthalene     | ND               | 0.00001 J        | NE  |
|      | 2-chloronaphthalene     | ND               | ND               | NE  |
|      | Diesel-Range Organics   | 0.674            | 0.179            | >\$                                       |
|      | Residual-Range Organics | 1.31             | 0.21 J           | >\$                                       |
|      | Gasoline-Range Organics | ND               | ND               | 14  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precisio

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the rbc for groundwater in excavation for the construction and excavatic



# Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA

# (BP-101-7 through BP-107-12)

|        | Compound                    |          |           |            | Boiler and | Powerhouse Area S | Soil Samples |           |           |           |              | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |                      |  |
|--------|-----------------------------|----------|-----------|------------|------------|-------------------|--------------|-----------|-----------|-----------|--------------|--|----------------------|--|
|        |                             | BP-101-7 | BP-101-30 | BP-102-12  | BP-102-20  | BP-103-13         | BP-104-13    | BP-104-20 | BP-106-13 | BP-107-12 | Occupational | Construction<br>Worker   | Excavatior<br>Worker |  |
|        | Antimony                    | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Arsenic                     | NA       | NA        | 3.68       | NA         | NA                | NA           | NA        | NA        | NA        | 1.9          | 15   | 420                  |  |
|        | Beryllium                   | NA       | NA        | 0.146 J    | NA         | NA                | NA           | NA        | NA        | NA        | 2,300        | 700  | 19,000               |  |
|        | Cadmium                     | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 1,100        | 350  | 9,700                |  |
|        | Chromium                    | NA       | NA        | 11.6       | NA         | NA                | NA           | NA        | NA        | NA        | 6.3          | 49   | 1400                 |  |
| s      | Copper                      | NA       | NA        | 10.8       | NA         | NA                | NA           | NA        | NA        | NA        | 47,000       | 14,000   | 390,000              |  |
| Metals | Lead                        | NA       | NA        | 4.61       | NA         | NA                | NA           | NA        | NA        | NA        | 800          | 800  | 800                  |  |
| Σ      | Nickel                      | NA       | NA        | 9.84       | NA         | NA                | NA           | NA        | NA        | NA        | 22,000       | 7,000  | 190,000              |  |
|        | Selenium                    | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Silver                      | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 5,800        | 1,800  | 49,000               |  |
|        | Thallium                    | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Zinc                        | NA       | NA        | 26.7       | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Mercury                     | NA       | NA        | 0.0416 B   | NA         | NA                | NA           | NA        | NA        | NA        | 350          | 110  | 2,900                |  |
|        | Acetone                     | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Acrylonitrile               | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 4            | 40   | 1,100                |  |
|        | Benzene                     | NA       | NA        | 0.000374 J | NA         | NA                | NA           | NA        | NA        | NA        | 37           | 380  | 11,000               |  |
|        | Bromobenzene                | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | ,<br>NE              |  |
|        | Bromodichloromethane        | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 15           | 230  | 6,300                |  |
|        | Bromoform                   | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 260          | 2,700  | 74,000               |  |
|        | Bromomethane                | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 750          | 370  | 10,000               |  |
|        | N-butylbenzene              | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Sec-butylbenzene            | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Tert-Butylbenzene           | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Carbon tetrachloride        | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 34           | 320  | 8,900                |  |
|        | Chlorobenzene               | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 8,700        | 4,700  | 130,000              |  |
|        | Chlorodibromomethane        | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 17           | 210  | 5,800                |  |
|        | Chloroethane                | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | Chloroform                  | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 26           | 410  | 11,000               |  |
|        | Chloromethane               | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 25,000       | 25,000   | 700,000              |  |
|        | 2-Chlorotoluene             | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | 4-Chlorotoluene             | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | 1,2-dibromo-3-chloropropane | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | 1,2-dibromoethane           | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 0.73         | 9  | 250                  |  |
|        | Dibromomethane              | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | 1,2-dichlorobenzene         | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 36,000       | 20,000   | 560,000              |  |
|        | 1,3-dichlorobenzene         | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |
|        | 1,4-dichlorobenzene         | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | 64           | 1,300  | 36,000               |  |
|        | Dichlorodifluoromethane     | NA       | NA        | ND         | NA         | NA                | NA           | NA        | NA        | NA        | NE           | NE   | NE                   |  |



# Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA

# (BP-101-7 through BP-107-12)

|  |          |           |                  | C          | Concentration (mg/k | g)           |           |           |           |              |  |                      |
|--|----------|-----------|------------------|------------|---------------------|--------------|-----------|-----------|-----------|--------------|--|----------------------|
| Compound   |          |           |                  | Boiler and | Powerhouse Area S   | ioil Samples |           |           |           |              | or Soil Ingestion<br>oct, and Inhalation |                      |
| 1,1-dichloroethane1,2-dichloroethane1,2-dichloroetheneCis-1,2-dichloroetheneTrans-1,2-dichloroethene1,2-dichloropropane1,1-dichloropropane1,3-dichloropropane1,3-dichloropropane2,2-dichloropropaneDi-isopropyl etherEthylbenzeneHexachloro-1,3-butadiene2-butanone (Mek)Methylene chloride4-methyl-2-pentanone (Mibk)Methyl tert-butyl etherStyrene1,1,2,2-tetrachloroethane1,1,2,2-tetrachloroethane1,1,2,2-tetrachloroethane1,1,2,3-trichlorobenzene1,2,3-trichlorobenzene1,2,4-trichlorobenzene1,2,4-trichloroethane1,1,1-trichloroethane | BP-101-7 | BP-101-30 | BP-102-12        | BP-102-20  | BP-103-13           | BP-104-13    | BP-104-20 | BP-106-13 | BP-107-12 | Occupational | Construction<br>Worker                   | Excavation<br>Worker |
| 1,1-dichloroethane   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 260          | 3,200                                    | 89,000               |
| 1,2-dichloroethane   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| 1,1-dichloroethene   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 29,000       | 13,000                                   | 370,000              |
| Cis-1,2-dichloroethene   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 2,300        | 710                                      | 20,000               |
| Trans-1,2-dichloroethene   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 23,000       | 7,100                                    | 200,000              |
| 1,2-dichloropropane  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| 1,1-dichloropropene  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| 1,3-dichloropropane  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| Cis-1,3-dichloropropene  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| Trans-1,3-dichloropropene  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| 2,2-dichloropropane  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| Di-isopropyl ether   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| Ethylbenzene   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 150          | 1,700                                    | 49,000               |
| Hexachloro-1,3-butadiene   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| Isopropylbenzene   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 57,000       | 27,000                                   | 750,000              |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| Methylene chloride   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| 4-methyl-2-pentanone (Mibk)  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| Methyl tert-butyl ether  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 1,100        | 12,000                                   | 320,000              |
|  | NA       | NA        | 0.0636 J         | NA         | NA                  | NA           | NA        | NA        | NA        | 23           | 580                                      | 16,000               |
| •  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 130,000      | 56,000                                   | >Max                 |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 1,000        | 1,800                                    | 50,000               |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 88,000       | 28,000                                   | 770,000              |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
| , ,  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | NE                                       | NE                   |
|  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 870,000      | 470,000                                  | >Max                 |
| 1,1,2-trichloroethane  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 26           | 54                                       | 1,500                |
| Trichloroethene  | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 51           | 130                                      | 3,700                |
| Trichlorofluoromethane   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | 130,000      | 69,000                                   | >Max                 |
| 1,2,3-trichloropropane   | NA       | NA        | ND               | NA         | NA                  | NA           | NA        | NA        | NA        | NE           | 09,000<br>NE                             | NE                   |
| 1,2,4-trimethylbenzene   | NA       | NA        | 0.000299 J       | NA         | NA                  | NA           | NA        | NA        | NA        | 6,900        | 6,900                                    | 81,000               |
| 1,2,3-trimethylbenzene   | NA       | NA        | 0.000299 J<br>ND | NA         | NA                  | NA           | NA        | NA        | NA        | 0,900<br>NE  | 0,900<br>NE                              | NE                   |
| 1,3,5-trimethylbenzene   | NA       | NA        | 0.000368 J       | NA         | NA                  | NA           | NA        | NA        | NA        | 6,900        | 6,900                                    | 81,000               |



#### Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA

#### (BP-101-7 through BP-107-12)

|   | Concentration (mg/kg) |           |           |            |                   |             |           |           |           |  |                        |         |  |  |
|---|-----------------------|-----------|-----------|------------|-------------------|-------------|-----------|-----------|-----------|--|------------------------|---------|--|--|
| CompoundVinyl chlorideXylenes, totalAnthraceneAcenaphtheneAcenaphthyleneBenzo(a)anthraceneBenzo(a)pyreneBenzo(a)pyreneBenzo(g,h,i)peryleneBenzo(g,h,i)peryleneChryseneDibenz(a,h)anthraceneFluorantheneFluoreneIndeno(1,2,3-cd)pyrene |                       |           |           | Boiler and | Powerhouse Area S | oil Samples |           |           |           | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |                        |         |  |  |
| Compound  | BP-101-7              | BP-101-30 | BP-102-12 | BP-102-20  | BP-103-13         | BP-104-13   | BP-104-20 | BP-106-13 | BP-107-12 | Occupational   | Construction<br>Worker |         |  |  |
| Vinyl chloride  | NA                    | NA        | ND        | NA         | NA                | NA          | NA        | NA        | NA        | 4.4  | 34                     | 950     |  |  |
| Xylenes, total  | NA                    | NA        | ND        | NA         | NA                | NA          | NA        | NA        | NA        | 25,000   | 20,000                 | 560,000 |  |  |
| Anthracene  | 0.0013 J              | ND        | 0.0739    | ND         | ND                | ND          | ND        | ND        | ND        | 350,000  | 110,000                | >Max    |  |  |
| Acenaphthene  | 0.00496 J             | ND        | 0.0915    | ND         | ND                | 0.00542 J   | ND        | ND        | ND        | 70,000   | 21,000                 | 590,000 |  |  |
| Acenaphthylene  | 0.00951 J             | ND        | ND        | ND         | ND                | 0.0206 J    | ND        | ND        | ND        | NE   | NE                     | NE      |  |  |
| Benzo(a)anthracene  | 0.00116 J             | ND        | 0.00733 J | ND         | ND                | ND          | ND        | ND        | ND        | 21   | 170                    | 4,800   |  |  |
| Benzo(a)pyrene  | ND                    | ND        | 0.00403 J | ND         | ND                | ND          | ND        | ND        | ND        | 2.1  | 17                     | 490     |  |  |
| Benzo(b)fluoranthene  | ND                    | ND        | ND        | ND         | ND                | ND          | ND        | ND        | ND        | 21   | 170                    | 4,900   |  |  |
| Benzo(g,h,i)perylene  | ND                    | ND        | 0.00421 J | ND         | ND                | ND          | ND        | ND        | ND        | NE   | NE                     | NE      |  |  |
| Benzo(k)fluoranthene  | ND                    | ND        | ND        | ND         | ND                | ND          | ND        | ND        | ND        | 210  | 1,700                  | 49,000  |  |  |
| Chrysene  | ND                    | ND        | 0.00691 J | ND         | ND                | ND          | ND        | ND        | ND        | 2,100  | 17,000                 | 490,000 |  |  |
| Dibenz(a,h)anthracene   | ND                    | ND        | ND        | ND         | ND                | ND          | ND        | ND        | ND        | 2.1  | 17                     | 490     |  |  |
| Fluoranthene  | 0.00216 J             | ND        | 0.0217 J  | ND         | ND                | 0.00442 J   | ND        | ND        | ND        | 30,000   | 10,000                 | 280,000 |  |  |
| Fluorene  | 0.0012 J              | ND        | 0.0308    | ND         | ND                | ND          | ND        | ND        | ND        | 47,000   | 14,000                 | 390,000 |  |  |
| Indeno(1,2,3-cd)pyrene  | ND                    | ND        | ND        | ND         | ND                | ND          | ND        | ND        | ND        | 21   | 170                    | 4,900   |  |  |
| Naphthalene   | 0.0785                | ND        | 0.165     | ND         | ND                | 0.199       | ND        | ND        | ND        | 23   | 580                    | 16,000  |  |  |
| Phenanthrene  | 0.00455 J             | ND        | 0.139     | ND         | ND                | 0.00907 J   | ND        | ND        | ND        | NE   | NE                     | NE      |  |  |
| Pyrene  | 0.00179 J             | ND        | 0.0641    | ND         | ND                | 0.00374 J   | ND        | ND        | ND        | 23,000   | 7,500                  | 210,000 |  |  |
| 1-methylnaphthalene   | 0.016 J               | ND        | 0.321     | ND         | ND                | ND          | ND        | ND        | ND        | NE   | NE                     | NE      |  |  |
| 2-methylnaphthalene   | 0.0128 J              | ND        | 0.409     | ND         | ND                | ND          | ND        | ND        | ND        | NE   | NE                     | NE      |  |  |
| 2-chloronaphthalene   | ND                    | ND        | ND        | ND         | ND                | ND          | ND        | ND        | ND        | NE   | NE                     | NE      |  |  |
| Total PCBs  | NA                    | NA        | NA        | NA         | NA                | NA          | NA        | NA        | NA        | 0.59   | 4.9                    | 140     |  |  |
| Diesel-Range Organics   | NA                    | NA        | 697 J3    | NA         | NA                | NA          | NA        | NA        | NA        | 14,000   | 4,600                  | >Max    |  |  |
| Residual-Range Organics   | NA                    | NA        | 757 J3    | NA         | NA                | NA          | NA        | NA        | NA        | 14,000   | 4,600                  | >Max    |  |  |
| Gasoline-Range Organics   | NA                    | NA        | 0.803     | NA         | NA                | NA          | NA        | NA        | NA        | 20,000   | 9,700                  | >Max    |  |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

> Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario. Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



### Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA (BP-108-13 through BP-126-6)

|        |                             |           |           |          | Concentrat  | ion (mg/kg)   |          |           |          |  |                        |                      |  |
|--------|-----------------------------|-----------|-----------|----------|-------------|---------------|----------|-----------|----------|--|------------------------|----------------------|--|
|        | Compound                    |           |           | Boiler a | nd Powerhou | ise Area Soil | Samples  |           |          | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |                        |                      |  |
|        |                             | BP-108-13 | BP-108-17 | BP-119-8 | BP-119-17   | BP-119-33     | BP-121-9 | BP-125-13 | BP-126-6 | Occupational   | Construction<br>Worker | Excavation<br>Worker |  |
|        | Antimony                    | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Arsenic                     | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 1.9  | 15                     | 420                  |  |
|        | Beryllium                   | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 2,300  | 700                    | 19,000               |  |
|        | Cadmium                     | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 1,100  | 350                    | 9,700                |  |
|        | Chromium                    | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 6.3  | 49                     | 1400                 |  |
| ls     | Copper                      | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 47,000   | 14,000                 | 390,000              |  |
| Metals | Lead                        | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 800  | 800                    | 800                  |  |
| 2      | Nickel                      | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 22,000   | 7,000                  | 190,000              |  |
|        | Selenium                    | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Silver                      | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 5,800  | 1,800                  | 49,000               |  |
|        | Thallium                    | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Zinc                        | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Mercury                     | NA        | NA        | NA       | NA          | NA            | NA       | NA        | NA       | 350  | 110                    | 2,900                |  |
|        | Acetone                     | NA        | NA        | ND       | 0.0188 J    | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Acrylonitrile               | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 4  | 40                     | 1,100                |  |
|        | Benzene                     | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 37   | 380                    | 11,000               |  |
|        | Bromobenzene                | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Bromodichloromethane        | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 15   | 230                    | 6,300                |  |
|        | Bromoform                   | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 260  | 2,700                  | 74,000               |  |
|        | Bromomethane                | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 750  | 370                    | 10,000               |  |
|        | N-butylbenzene              | NA        | NA        | 0.751    | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Sec-butylbenzene            | NA        | NA        | 0.101 J  | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Tert-Butylbenzene           | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Carbon tetrachloride        | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 34   | 320                    | 8,900                |  |
|        | Chlorobenzene               | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 8,700  | 4,700                  | 130,000              |  |
|        | Chlorodibromomethane        | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 17   | 210                    | 5,800                |  |
|        | Chloroethane                | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | Chloroform                  | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 26   | 410                    | 11,000               |  |
|        | Chloromethane               | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 25,000   | 25,000                 | 700,000              |  |
|        | 2-Chlorotoluene             | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | 4-Chlorotoluene             | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | 1,2-dibromo-3-chloropropane | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | 1,2-dibromoethane           | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 0.73   | 9                      | 250                  |  |
|        | Dibromomethane              | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | 1,2-dichlorobenzene         | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 36,000   | 20,000                 | 560,000              |  |
|        | 1,3-dichlorobenzene         | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | 1,4-dichlorobenzene         | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 64   | 1,300                  | 36,000               |  |
|        | Dichlorodifluoromethane     | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | 1,1-dichloroethane          | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 260  | 3,200                  | 89,000               |  |
|        | 1,2-dichloroethane          | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
|        | 1,1-dichloroethene          | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 29,000   | 13,000                 | 370,000              |  |
|        | Cis-1,2-dichloroethene      | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 2,300  | 710                    | 20,000               |  |
|        | Trans-1,2-dichloroethene    | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | 23,000   | 7,100                  | 200,000              |  |
|        | 1,2-dichloropropane         | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
| Ś      | 1,1-dichloropropene         | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
| VOCs   | 1,3-dichloropropane         | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |
| >      | Cis-1,3-dichloropropene     | NA        | NA        | ND       | ND          | NA            | NA       | NA        | NA       | NE   | NE                     | NE                   |  |



## Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA (BP-108-13 through BP-126-6)

| DECompound         DEC RRS: Soft Samples:         DEC RRS: Soft Samples: Contact, and Inhala           Trans: 1,3 dichloropropene         NA   | on<br>Excavation<br>Worker |
|---|----------------------------|
| PF 108-13         PF 108-13         PF 108-13         PF 119-17         PF 12-33         PF 12-51         PF 12-50         Occupational         Worker           Itans 1, 3 dichloropropane         NA         NA         NA         ND         NA         NA | Worker                     |
| 2.2-dichloropropaneNANANANANDNDNANANANANFNFDi-sopropyletherNANANANDNANANANANANANANANFNFEthylenzeneNANANANDNDNANANANANANENEIsopropylenzeneNANANAOd021NDNANANANANANENEPsiopropyllolaceneNANANANDNDNANANANANENF2-butanone (Mek)NANANANDNDNANANANENFMethylene chlorideNANANDNDNANANANANENFMethylene chlorideNANANDNDNANANANANENEMethylene chlorideNANANDNDNANANANANANANANANprophenzeneNANANDNDNAN   |                            |
| Disspropylether         NA                   | NE                         |
| Ethylbenzene         NA                      | NE                         |
| Hexachloro-1,3-butadieneNA <td>NE</td>  | NE                         |
| IsopropylbenzeneNA<   | 49,000                     |
| P-isopropyholueneNA   | NE                         |
| 2-butanone (Mek)NA<   | 750,000                    |
| Methylene chlorideNANANANANANANANANANA4-methyl-2-pentanone (Mibk)NANANANDNA   | NE                         |
| 4-methyl-2-pentanone (Mibk)NA<  | NE                         |
| Methyl tert-butyl etherNANANANANANANA1,10012,000NaphthaleneNANANA12.7NDNANANANA23580NpropylbenzeneNANA0.549NDNANANANANE560001,1,1,2tetrachloroethaneNANANDNDNANANANANENE1,1,2,2tetrachloroethaneNANANDNDNANANANENE1,1,2,2tetrachloroethaneNANANDNDNANANANENE1,1,2,2tetrachloroethaneNANANDNDNANANANENE1,1,2,4trichloroothaneNANANDNDNANANANENE1,2,4trichlorobenzeneNANANDNDNANANANENE1,2,4trichloroothaneNANANDNDNANANANENE1,2,4trichloroothaneNANANDNDNANANANANENE1,2,4trichloroothaneNANANDNDNANANANANENE1,2,4trichloroothaneNANANDNDNANANANAS1130,00069,0001,2,3trichloroothaneNANANDNDNANANANANEN   | NE                         |
| NaphthaleneNANANANANANANANA23580N-propylbenzeneNANANA0.549NDNANANANANENEStyreneNANANANDNDNANANANA130,00056,0001,1,2,2-tetrachloroethaneNANANDNDNANANANENE1,1,2,2-tetrachloroethaneNANANDNDNANANANENE1,1,2,2-tetrachloroethaneNANANDNDNANANANENE1,1,2,2-tetrachloroethaneNANANDNDNANANANENE1,1,2,2-tetrachloroethaneNANANDNDNANANANENE1,1,2,2-tetrachloroethaneNANANDNDNANANANENE1,1,2,2-tetrachloroethaneNANANDNDNANANANANENE1,1,2-tetrachloroethaneNANANDNDNANANANANENENE1,1,2-tetrachloroethaneNANANDNDNA <td>NE</td>   | NE                         |
| N-propylbenzeneNA </td <td>320,000</td>   | 320,000                    |
| StyreneNANANANDNDNAN  | 16,000                     |
| 1,1,2-tetrachloroethaneNANANANDNDNANANANANENE1,1,2,2-tetrachloroethaneNANANANDNDNANANANANENE1,1,2-trichlorotrifluoroethaneNANANDNDNANANANANENETetrachloroethaneNANANDNDNANANANANENETetrachloroethaneNANANDNDNANANANANANB1,2,3-trichlorobenzeneNANANDNDNANANANENENE1,2,3-trichlorobenzeneNANANDNDNANANANENENE1,1,1-trichlorobenzeneNANANDNDNANANANENENE1,1,2-trichloroethaneNANANDNDNANANANENENE1,1,1-trichloroethaneNANANDNDNANANAA26541,1,2-trichloroethaneNANANDNDNANANA130,00069,0001,2,3-trichloropropaneNANANDNDNANANANANANANA1,2,3-trimethylbenzeneNANANDNDNANANANANANANANANANANANA <td>NE</td>   | NE                         |
| 1,1,2,2-tetrachloroethaneNA <td>&gt;Max</td>  | >Max                       |
| 1,1,2-trichlorotrifluoroethaneNANANANANANANANENETetrachloroetheneNANANDNDNANANANA1,0001,800TolueneNANANANDNDNANANANA88,00028,0001,2,3-trichlorobenzeneNANANDNDNANANANANENE1,2,4-trichlorobenzeneNANANDNDNANANANANENE1,1,1-trichloroethaneNANANDNDNANANANA26541,1,2-trichloroethaneNANANDNDNANANA2654TrichlorofluoromethaneNANANDNDNANANA2654TrichlorofluoromethaneNANANDNDNANANA26541,2,3-trichloropopaneNANANDNDNANANA26541,2,3-trichloropopaneNANANDNDNANANA130,00069,0001,2,3-trimethylbenzeneNANANANDNANANANANENE1,3,5-trimethylbenzeneNANANANDNANANANANANANANANANA1,3,5-trimethylbenzeneNANANANANA <t< td=""><td>NE</td></t<>  | NE                         |
| TetrachloroetheneNANANANANANANANANA1,0001,800TolueneNANANANDNDNANANANA88,00028,0001,2,3-trichlorobenzeneNANANDNDNANANANENE1,2,4-trichlorobenzeneNANANDNDNANANANENE1,1,1-trichloroethaneNANANDNDNANANA870,000470,0001,1,2-trichloroethaneNANANDNDNANANA2654TrichloroethaneNANANDNDNANANA2654TrichloroethaneNANANDNDNANANA51130TrichloroethaneNANANDNDNANANANENENE1,2,3-trichloropropaneNANANDNDNANANANENENE1,2,3-trinethylbenzeneNANANANDNANANANANENENE1,3,5-trimethylbenzeneNANANDNDNANANANAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA<   | NE                         |
| TolueneNANANDNDNAN  | NE                         |
| 1,2,3-trichlorobenzeneNANANANDNANANANANANENE1,2,4-trichlorobenzeneNANANANDNDNANANANANENE1,1,1-trichloroethaneNANANANDNDNANANANA870,000470,0001,1,2-trichloroethaneNANANDNDNANANANA2654TrichloroethaneNANANDNDNANANANA2654TrichloroethaneNANANDNDNANANA51130TrichloroethaneNANANDNDNANANA511301,2,3-trichloropropaneNANANDNDNANANANA69,00069,0001,2,3-trimethylbenzeneNANA0.0239 JNDNANANANANENENE1,3,5-trimethylbenzeneNANANDNDNANANANAA6,9006,900Vinyl chlorideNANANANDNDNANANANA4.434Xylenes, totalNANANANANANANA25,00020,000Anthracene0.00391 JND30.60.00374 J0.0017 J0.0147 J350,000110,000Acenaphthene0.0134 JND </td <td>50,000</td>  | 50,000                     |
| 1,2,4+trichlorobenzeneNANANANANANANANENE1,1,1-trichloroethaneNANANANDNDNANANANA870,000470,0001,1,2-trichloroethaneNANANANDNDNANANANA2654TrichloroetheneNANANANDNDNANANA2654TrichlorofluoromethaneNANANDNDNANANA511301,2,3-trichloropropaneNANANDNDNANANA69,00069,0001,2,3-trimethylbenzeneNANA0.0239 JNDNANANANANENENE1,3,5-trimethylbenzeneNANANANDNDNANANAA6,9006,900Vinyl chlorideNANANANDNDNANANAA4.434Xylenes, totalNANANDNDNANANAA4.435,000110,000Anthracene0.00391 JND30.70.00241 J0.00072 JND0.0147 J0.0147 J350,00021,000Acenaphthene0.0134 JNDND0.00376 J0.0014 JNDND0.0225 JNENENE   | 770,000                    |
| 1,1,1-trichloroethaneNANANANDNDNANANANANA870,000470,0001,1,2-trichloroethaneNANANDNDNANANANA2654TrichloroethaneNANANDNDNANANAS1130TrichloroffluoromethaneNANANDNDNANANAS1130,00069,0001,2,3-trichloropropaneNANANDNDNANANANANENENE1,2,4-trimethylbenzeneNANA0.0239JNDNANANANANANANENE1,2,3-trimethylbenzeneNANA0.0239JNDNANANANANANENE1,3,5-trimethylbenzeneNANANDNDNANANANAA <td>NE</td>   | NE                         |
| 1,1,2-trichloroethaneNANANANANANANANANA2654TrichloroetheneNANANANDNDNANANANA51130TrichlorofluoromethaneNANANDNDNANANANA511301,2,3-trichloropropaneNANANDNDNANANANANENE1,2,3-trimethylbenzeneNANA0.0239 JNDNANANANA6,9006,9001,2,3-trimethylbenzeneNANA0.114NDNANANANANENE1,3,5-trimethylbenzeneNANANDNDNANANAA6,9006,900Vinyl chlorideNANANANDNDNANANAA4.434Xylenes, totalNANA0.0872 JNDNANANAA25,00020,000Acenaphthene0.00718 JND30.60.00376 J0.0014 JND0.0327 JND70,00021,000Acenaphthylene0.0134 JNDND0.00082 JND <td>NE</td>  | NE                         |
| TrichloroetheneNANANANANANANANAS1130TrichlorofluoromethaneNANANANDNDNANANANANA130,00069,0001,2,3-trichloropropaneNANANANDNDNANANANANENE1,2,4-trimethylbenzeneNANA0.0239 JNDNANANANA6,9006,9001,2,3-trimethylbenzeneNANA0.0139 JNDNANANANA6,9006,9001,3,5-trimethylbenzeneNANANANDNDNANANANANENE1,3,5-trimethylbenzeneNANANANDNDNANANAAA6,9006,900Vinyl chlorideNANANANDNDNANANAAA4.434Xylenes, totalNANANANANANANA25,00020,000Anthracene0.00391 JND30.60.00376 J0.0014 JND0.0327ND70,00021,000Acenaphthene0.0134 JNDND0.0082 JNDNDNDNDNDNDNDNDNDND  | >Max                       |
| TrichlorofluoromethaneNANANANDNANANANANA130,00069,0001,2,3-trichloropropaneNANANANDNDNANANANANENE1,2,4-trimethylbenzeneNANA0.0239 JNDNANANANA6,9006,9001,2,3-trimethylbenzeneNANA0.0114NDNANANANANENE1,3,5-trimethylbenzeneNANANANDNDNANANANA6,9006,900Vinyl chlorideNANANANDNDNANANAA4.434Xylenes, totalNANA0.0872 JNDNANANA25,00020,000Acenaphthene0.00718 JND30.60.00376 J0.0014 JND0.0327ND70,00021,000Acenaphthylene0.0134 JNDND0.0082 JNDNDNDNDNDNDNDND   | 1,500                      |
| 1,2,3-trichloropropaneNANANANDNANANANANANANANENE1,2,3-trimethylbenzeneNANA0.0239 JNDNANANANA6,9006,9001,2,3-trimethylbenzeneNANA0.114NDNANANANANENE1,3,5-trimethylbenzeneNANANANANANANANENE1,3,5-trimethylbenzeneNANANDNDNANANANA6,9006,900Vinyl chlorideNANANANDNDNANANAA4.434Xylenes, totalNANA0.0872 JNDNANANANA25,00020,000Anthracene0.00391 JND30.60.00376 J0.0014 JND0.00327 JND30.205 JNDND0.0327 JNDND21,000Acenaphthylene0.0134 JNDND0.0082 JNDNDNDND0.0205 JNENE  | 3,700                      |
| 1,2,4-trimethylbenzeneNANA0.0239 JNDNANANANA6,9006,9001,2,3-trimethylbenzeneNANA0.114NDNANANANANENE1,3,5-trimethylbenzeneNANANDNDNANANA6,9006,9001,3,5-trimethylbenzeneNANANDNDNANANA6,9006,900Vinyl chlorideNANANANDNDNANANA6,9006,900Vinyl chlorideNANANANDNDNANANA4.434Xylenes, totalNANA0.0872 JNDNANANA25,00020,000Anthracene0.00391 JND30.70.00241 J0.00072 JND0.0017 J0.0147 J350,000110,000Acenaphthene0.00718 JND30.60.00376 J0.0014 JNDND0.0225 JNENE   | >Max                       |
| 1,2,3-trimethylbenzeneNANA0.114NDNANANANANANENE1,3,5-trimethylbenzeneNANANANDNDNANANAAA6,9006,900Vinyl chlorideNANANANDNDNANANANA4.434Xylenes, totalNANA0.0872 JNDNANANANA25,00020,000Anthracene0.00391 JND30.70.00241 J0.00072 JND0.0017 J0.0147 J350,000110,000Acenaphthene0.00718 JND30.60.00376 J0.0014 JND0.0327ND70,00021,000Acenaphthylene0.0134 JNDND0.0082 JNDNDND0.0205 JNENE   | NE                         |
| 1,3,5-trimethylbenzeneNANANANDNDNANANANA6,9006,900Vinyl chlorideNANANANDNDNANANANA4.434Xylenes, totalNANA0.0872 JNDNANANANA25,00020,000Anthracene0.00391 JND30.70.00241 J0.0072 JND0.0017 J0.0147 J350,000110,000Acenaphthene0.00718 JND30.60.00376 J0.0014 JND0.0327ND70,00021,000Acenaphthylene0.0134 JNDND0.0082 JNDNDND0.0205 JNENE   | 81,000                     |
| Vinyl chloride         NA         NA         ND         NA         NA         NA         NA         A.4.         34           Xylenes, total         NA         NA         0.0872 J         ND         NA         NA         NA         25,000         20,000           Anthracene         0.00391 J         ND         30.7         0.00241 J         0.0072 J         ND         0.0017 J         0.0147 J         350,000         110,000           Acenaphthene         0.00718 J         ND         30.6         0.00376 J         0.0014 J         ND         0.0327         ND         70,000         21,000           Acenaphthylene         0.0134 J         ND         ND         0.0082 J         ND         ND         ND         0.0205 J         NE         NE  | NE                         |
| Xylenes, total         NA         NA         0.0872 J         ND         NA         NA         NA         NA         25,000         20,000           Anthracene         0.00391 J         ND         30.7         0.00241 J         0.00072 J         ND         0.017 J         0.0147 J         350,000         110,000           Acenaphthene         0.00718 J         ND         30.6         0.00376 J         0.0014 J         ND         0.0327         ND         70,000         21,000           Acenaphthylene         0.0134 J         ND         ND         0.0082 J         ND         ND         ND         0.0205 J         NE         NE   | 81,000                     |
| Anthracene0.00391 JND30.70.00241 J0.00072 JND0.0017 J0.0147 J350,000110,000Acenaphthene0.00718 JND30.60.00376 J0.0014 JND0.0327ND70,00021,000Acenaphthylene0.0134 JNDND0.0082 JNDNDND0.0205 JNENE   | 950                        |
| Acenaphthene         0.00718 J         ND         30.6         0.00376 J         0.0014 J         ND         0.0327         ND         70,000         21,000           Acenaphthylene         0.0134 J         ND         ND         0.00082 J         ND         ND         ND         0.0205 J         NE         NE  | 560,000                    |
| Acenaphthylene 0.0134 J ND ND 0.00082 J ND ND ND 0.0205 J NE NE   | >Max                       |
|   | 590,000                    |
| Benzo(a)anthracene         0.00254 J         ND         5.94         0.00109 J         ND         ND         0.0257 J         21         170  | NE                         |
|   | 4,800                      |
| Benzo(a)pyrene         ND         ND         ND         ND         ND         0.0163 J         2.1         17   | 490                        |
| Benzo(b)fluoranthene         ND         ND         1.15         ND         ND         ND         0.0432 J         21         170  | 4,900                      |
| Benzo(g,h,i)perylene ND ND 0.998 ND ND ND ND 0.449 NE NE  | NE                         |
| Benzo(k)fluoranthene         ND         ND         ND         ND         ND         0.0201 J         210         1,700  | 49,000                     |
| Chrysene ND ND 10.0 0.00073 J ND ND ND ND 2,100 17,000  | 490,000                    |
| StepNDNDNDNDNDNDNDNDNDNDDibenz(a,h)anthraceneNDND0.275 JNDNDNDND2.117   | 490                        |
| Fluoranthene 0.00467 J ND 4.45 ND ND ND 0.00377 J 0.0152 J 30,000 10,000  | 280,000                    |
| Fluorene 0.00271 J ND 28.8 0.00339 0.00128 J 0.00075 J 0.0109 ND 47,000 14,000  | 390,000                    |
| Indeno(1,2,3-cd)pyrene ND ND 0.179 J ND ND ND ND 0.0224 21 170  | 4,900                      |
| Naphthalene 0.106 ND 92.0 0.0129 J ND ND 0.02 J ND 23 580   | 16,000                     |
| Phenanthrene         0.012 J         ND         124         0.00928         0.00314 J         ND         ND         0.015 J         NE         NE   | NE                         |
| Pyrene 0.00442 J ND 28.2 0.00229 J ND ND 0.00255 J 0.0199 J 23,000 7,500  | 210,000                    |



#### Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA (BP-108-13 through BP-126-6)

|                         |           |           |           | Concentrat | tion (mg/kg)   |          |           |          |              |                        |                      |
|-------------------------|-----------|-----------|-----------|------------|--|----------|-----------|----------|--------------|------------------------|----------------------|
| Compound                |           |           | Boiler a  |            | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |          |           |          |              |                        |                      |
|                         | BP-108-13 | BP-108-17 | BP-119-8  | BP-119-17  | BP-119-33  | BP-121-9 | BP-125-13 | BP-126-6 | Occupational | Construction<br>Worker | Excavation<br>Worker |
| 1-methylnaphthalene     | ND        | ND        | 138       | 0.0451     | 0.00855 J  | ND       | 0.0032 J  | ND       | NE           | NE                     | NE                   |
| 2-methylnaphthalene     | 0.00785 J | ND        | 202       | 0.052      | 0.00959 J  | ND       | 0.00403   | ND       | NE           | NE                     | NE                   |
| 2-chloronaphthalene     | ND        | ND        | ND        | ND         | ND   | ND       | ND        | ND       | NE           | NE                     | NE                   |
| Total PCBs              | NA        | NA        | NA        | NA         | NA   | NA       | NA        | NA       | 0.59         | 4.9                    | 140                  |
| Diesel-Range Organics   | 85.1      | NA        | 27,600 J3 | ND         | ND   | NA       | ND        | NA       | 14,000       | 4,600                  | >Max                 |
| Residual-Range Organics | 389       | NA        | 14,000 J3 | 5.79       | ND   | NA       | ND        | NA       | 14,000       | 4,600                  | >Max                 |
| Gasoline-Range Organics | NA        | NA        | 161       | NA         | NA   | NA       | NA        | NA       | 20,000       | 9,700                  | >Max                 |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected. NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



# Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA(BP-127.8 through BP-202.10)

|        |                             | Concentration (mg/kg) |          |           |              |               |           |          |           |                 |                                     |                      |  |
|--------|-----------------------------|-----------------------|----------|-----------|--------------|---------------|-----------|----------|-----------|-----------------|-------------------------------------|----------------------|--|
|        | Compound                    |                       |          | Boiler a  | and Powerhou | ise Area Soil | Samples   |          |           | DEQ RBCs for So | oil Ingestion, Dermal<br>Inhalation | Contact, and         |  |
|        |                             | BP-127-8              | BP-129-8 | BP-129-14 | BP-187-11    | BP-200-8      | BP-200-13 | BP-202-4 | BP-202-10 | Occupational    | Construction<br>Worker              | Excavation<br>Worker |  |
|        | Antimony                    | NA                    | NA       | NA        | NA           | NA            | NA        | ND       | NA        | NE              | NE                                  | NE                   |  |
|        | Arsenic                     | NA                    | NA       | NA        | NA           | NA            | NA        | 4.17     | NA        | 1.9             | 15                                  | 420                  |  |
|        | Beryllium                   | NA                    | NA       | NA        | NA           | NA            | NA        | 0.139 J  | NA        | 2,300           | 700                                 | 19,000               |  |
|        | Cadmium                     | NA                    | NA       | NA        | NA           | NA            | NA        | 0.151 J  | NA        | 1,100           | 350                                 | 9,700                |  |
|        | Chromium                    | NA                    | NA       | NA        | NA           | NA            | NA        | 13.8     | NA        | 6.3             | 49                                  | 1400                 |  |
| s      | Copper                      | NA                    | NA       | NA        | NA           | NA            | NA        | 28.8     | NA        | 47,000          | 14,000                              | 390,000              |  |
| Metals | Lead                        | NA                    | NA       | NA        | NA           | NA            | NA        | 12.6     | NA        | 800             | 800                                 | 800                  |  |
| 2      | Nickel                      | NA                    | NA       | NA        | NA           | NA            | NA        | 13.7     | NA        | 22,000          | 7,000                               | 190,000              |  |
|        | Selenium                    | NA                    | NA       | NA        | NA           | NA            | NA        | ND       | NA        | NE              | NE                                  | NE                   |  |
|        | Silver                      | NA                    | NA       | NA        | NA           | NA            | NA        | ND       | NA        | 5,800           | 1,800                               | 49,000               |  |
|        | Thallium                    | NA                    | NA       | NA        | NA           | NA            | NA        | ND       | NA        | NE              | NE                                  | NE                   |  |
|        | Zinc                        | NA                    | NA       | NA        | NA           | NA            | NA        | 56.9     | NA        | NE              | NE                                  | NE                   |  |
|        | Mercury                     | NA                    | NA       | NA        | NA           | NA            | NA        | 0.0367   | NA        | 350             | 110                                 | 2,900                |  |
|        | Acetone                     | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | Acrylonitrile               | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 4               | 40                                  | 1,100                |  |
|        | Benzene                     | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 37              | 380                                 | 11,000               |  |
|        | Bromobenzene                | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | Bromodichloromethane        | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 15              | 230                                 | 6,300                |  |
|        | Bromoform                   | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 260             | 2,700                               | 74,000               |  |
|        | Bromomethane                | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 750             | 370                                 | 10,000               |  |
|        | N-butylbenzene              | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | Sec-butylbenzene            | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | Tert-Butylbenzene           | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | Carbon tetrachloride        | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 34              | 320                                 | 8,900                |  |
|        | Chlorobenzene               | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 8,700           | 4,700                               | 130,000              |  |
|        | Chlorodibromomethane        | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 17              | 210                                 | 5,800                |  |
|        | Chloroethane                | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | Chloroform                  | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 26              | 410                                 | 11,000               |  |
|        | Chloromethane               | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 25,000          | 25,000                              | 700,000              |  |
|        | 2-Chlorotoluene             | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | 4-Chlorotoluene             | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | 1,2-dibromo-3-chloropropane | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | 1,2-dibromoethane           | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 0.73            | 9                                   | 250                  |  |
|        | Dibromomethane              | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | 1,2-dichlorobenzene         | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 36,000          | 20,000                              | 560,000              |  |
|        | 1,3-dichlorobenzene         | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | 1,4-dichlorobenzene         | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 64              | 1,300                               | 36,000               |  |
|        | Dichlorodifluoromethane     | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | 1,1-dichloroethane          | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 260             | 3,200                               | 89,000               |  |
|        | 1,2-dichloroethane          | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | NE              | NE                                  | NE                   |  |
|        | 1,1-dichloroethene          | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 29,000          | 13,000                              | 370,000              |  |
|        | Cis-1,2-dichloroethene      | NA                    | NA       | NA        | NA           | NA            | NA        | NA       | NA        | 2,300           | 710                                 | 20,000               |  |



# Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA(BP-127.8 through BP-202.10)

| Concentration (mg/kg) |                                |          |          |           |             |                    |           |           |           |                 |                                     |                      |
|-----------------------|--------------------------------|----------|----------|-----------|-------------|--------------------|-----------|-----------|-----------|-----------------|-------------------------------------|----------------------|
|                       | Compound                       |          |          | Boiler a  | nd Powerhou | se Area Soil       | Samples   |           |           | DEQ RBCs for Se | oil Ingestion, Dermal<br>Inhalation | Contact, and         |
|                       |                                | BP-127-8 | BP-129-8 | BP-129-14 | BP-187-11   | BP-200-8           | BP-200-13 | BP-202-4  | BP-202-10 | Occupational    | Construction<br>Worker              | Excavation<br>Worker |
|                       | Trans-1,2-dichloroethene       | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 23,000          | 7,100                               | 200,000              |
|                       | 1,2-dichloropropane            | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
| S                     | 1,1-dichloropropene            | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
| VOCs                  | 1,3-dichloropropane            | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
| -                     | Cis-1,3-dichloropropene        | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Trans-1,3-dichloropropene      | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 2,2-dichloropropane            | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Di-isopropyl ether             | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Ethylbenzene                   | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 150             | 1,700                               | 49,000               |
|                       | Hexachloro-1,3-butadiene       | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Isopropylbenzene               | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 57,000          | 27,000                              | 750,000              |
|                       | P-isopropyltoluene             | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 2-butanone (Mek)               | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Methylene chloride             | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 4-methyl-2-pentanone (Mibk)    | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Methyl tert-butyl ether        | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 1,100           | 12,000                              | 320,000              |
|                       | Naphthalene                    | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 23              | 580                                 | 16,000               |
|                       | N-propylbenzene                | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Styrene                        | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 130,000         | 56,000                              | >Max                 |
|                       | 1,1,1,2-tetrachloroethane      | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 1,1,2,2-tetrachloroethane      | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 1,1,2-trichlorotrifluoroethane | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | Tetrachloroethene              | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 1,000           | 1,800                               | 50,000               |
|                       | Toluene                        | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 88,000          | 28,000                              | 770,000              |
|                       | 1,2,3-trichlorobenzene         | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 1,2,4-trichlorobenzene         | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 1,1,1-trichloroethane          | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 870,000         | 470,000                             | >Max                 |
|                       | 1,1,2-trichloroethane          | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 26              | 54                                  | 1,500                |
|                       | Trichloroethene                | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 51              | 130                                 | 6,700                |
|                       | Trichlorofluoromethane         | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 130,000         | 69,000                              | >Max                 |
|                       | 1,2,3-trichloropropane         | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 1,2,4-trimethylbenzene         | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 6,900           | 6,900                               | 81,000               |
|                       | 1,2,3-trimethylbenzene         | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | NE              | NE                                  | NE                   |
|                       | 1,3,5-trimethylbenzene         | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 6,900           | 6,900                               | 81,000               |
|                       | Vinyl chloride                 | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 4.4             | 34                                  | 950                  |
|                       | Xylenes, total                 | NA       | NA       | NA        | NA          | NA                 | NA        | NA        | NA        | 25,000          | 20,000                              | 560,000              |
|                       | Anthracene                     | ND       | 22.9     | ND        | ND          | 1.06               | ND        | 0.00485 J | ND        | 350,000         | 110,000                             | >Max                 |
|                       | Acenaphthene                   | ND       | 16.1     | 0.00719 J | ND          | 1.46               | ND        | 0.00078 J | ND        | 70,000          | 21,000                              | 590,000              |
|                       | Acenaphthylene                 | ND       | 3.64     | ND        | ND          | 0.182              | ND        | 0.00184 J | ND        | NE              | NE                                  | NE                   |
|                       | Benzo(a)anthracene             | ND       | 3.88     | 0.00218 J | ND          | 0.0922             | ND        | 0.0397    | ND        | 21              | 170                                 | 4,800                |
|                       | Benzo(a)pyrene                 | ND       | 1.76     | 0.00218 J | 0.00073 J   | 0.0922<br>0.0405 J | ND        | 0.0368    | ND        | 2.1             | 170                                 | 4,000                |
|                       | Benzo(b)fluoranthene           | ND       | 0.842    | ND        | ND          | 0.0431 J           | ND        | 0.0300    | ND        | 21              | 170                                 | 4,900                |



# Table 20: SUMMARY OF BOILER AND POWERHOUSE AREA SOIL CHEMICAL DATA(BP-127.8 through BP-202.10)

| Concentration (mg/kg) |                         |          |          |           |             |                 |           |           |           |  |                        |                      |  |
|-----------------------|-------------------------|----------|----------|-----------|-------------|-----------------|-----------|-----------|-----------|--|------------------------|----------------------|--|
|                       | Compound                |          |          | Boiler a  | nd Powerhou | ise Area Soil S | Samples   |           |           | DEQ RBCs for Soil Ingestion, Dermal Contact, and<br>Inhalation |                        |                      |  |
|                       |                         | BP-127-8 | BP-129-8 | BP-129-14 | BP-187-11   | BP-200-8        | BP-200-13 | BP-202-4  | BP-202-10 | Occupational   | Construction<br>Worker | Excavation<br>Worker |  |
|                       | Benzo(g,h,i)perylene    | ND       | 0.836    | ND        | ND          | 0.0376 J        | ND        | 0.0263    | ND        | NE   | NE                     | NE                   |  |
|                       | Benzo(k)fluoranthene    | ND       | 0.16     | ND        | ND          | 0.0181 J        | ND        | 0.0215    | ND        | 210  | 1,700                  | 49,000               |  |
| s                     | Chrysene                | ND       | 7.08     | 0.00318 J | ND          | 0.172           | ND        | 0.0407    | ND        | 2,100  | 17,000                 | 490,000              |  |
| PAH                   | Dibenz(a,h)anthracene   | ND       | 0.228    | ND        | ND          | 0.00824 J       | ND        | 0.00632 J | ND        | 2.1  | 17                     | 490                  |  |
| а.                    | Fluoranthene            | ND       | 2.83     | 0.00191 J | ND          | 0.403           | ND        | 0.0678    | ND        | 30,000   | 10,000                 | 280,000              |  |
|                       | Fluorene                | ND       | 16.5     | 0.0048 J  | ND          | 0.481           | ND        | 0.00125 J | ND        | 47,000   | 14,000                 | 390,000              |  |
|                       | Indeno(1,2,3-cd)pyrene  | ND       | 0.130 J  | ND        | ND          | 0.0106 J        | ND        | 0.0217    | ND        | 21   | 170                    | 4,900                |  |
|                       | Naphthalene             | ND       | 50.4     | 0.00388 J | 0.00449 J   | 0.153 J         | ND        | ND        | ND        | 23   | 580                    | 16,000               |  |
|                       | Phenanthrene            | ND       | 86.0     | 0.0166    | ND          | 0.508           | ND        | 0.0146    | ND        | NE   | NE                     | NE                   |  |
|                       | Pyrene                  | ND       | 17.6     | 0.00812   | ND          | 1.4             | ND        | 0.0475    | ND        | 23,000   | 7,500                  | 210,000              |  |
|                       | 1-methylnaphthalene     | ND       | 258      | 0.0492    | ND          | 0.455           | ND        | 0.00308 J | ND        | NE   | NE                     | NE                   |  |
|                       | 2-methylnaphthalene     | ND       | 35.8     | 0.00709 J | ND          | 0.400           | ND        | 0.00463 J | ND        | NE   | NE                     | NE                   |  |
|                       | 2-chloronaphthalene     | ND       | ND       | ND        | ND          | ND              | ND        | ND        | ND        | NE   | NE                     | NE                   |  |
|                       | Total PCBs              | NA       | NA       | NA        | NA          | NA              | NA        | ND J3     | NA        | 0.59   | 4.9                    | 140                  |  |
|                       | Diesel-Range Organics   | NA       | 10,800   | 11.2      | NA          | 2,360           | NA        | ND        | NA        | 14,000   | 4,600                  | >Max                 |  |
|                       | Residual-Range Organics | NA       | 5,100    | ND J      | NA          | 967             | NA        | 98.2      | NA        | 14,000   | 4,600                  | >Max                 |  |
|                       | Gasoline-Range Organics | NA       | NA       | NA        | NA          | NA              | NA        | NA        | NA        | 20,000   | 9,700                  | >Max                 |  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



#### Table 21: SUMMARY OF BOILER AND POWERHOUSE GROUNDWATER CHEMICAL DATA

|   |                | Concentration (mg/L) |                   |               |               |          |   |  |  |  |  |  |
|---|----------------|----------------------|-------------------|---------------|---------------|----------|---|--|--|--|--|--|
| Compound  |                | Boi                  | ler and Powerhous | e Groundwater | Samples       |          | DEQ RBCs for Groundwat<br>in Excavation |  |  |  |  |  |
|   | BP-102-W       | BP-109-W             | BP-119-W          | BP-121-W      | BP-187-W      | BP-202-W | Construction & Excavatio<br>Worker      |  |  |  |  |  |
| Antimony  | ND             | 0.000828 J           | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Arsenic   | 0.0105         | 0.00301              | 0.00474           | NA            | 0.00908       | NA       | 6.3                                     |  |  |  |  |  |
| Beryllium   | ND             | ND                   | ND                | NA            | ND            | NA       | 270                                     |  |  |  |  |  |
| Cadmium   | ND             | ND                   | ND                | NA            | ND            | NA       | 130                                     |  |  |  |  |  |
| Chromium  | 0.0368         | 0.005 J              | 0.00313 J         | NA            | 0.0215        | NA       | 9.4                                     |  |  |  |  |  |
| ୍ <u>ର</u> Copper<br>ୟୁ Lead                                      | 0.0194 0.0103  | ND<br>0.00184 B J    | ND<br>0.000716 J  | NA<br>NA      | ND<br>0.00529 | NA<br>NA | 5,400<br>>S                             |  |  |  |  |  |
| Lead<br>Nickel  | 0.0193         | 0.00104 D J          | ND                | NA            | 0.0127        | NA       | >\$                                     |  |  |  |  |  |
| Selenium  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Silver  | ND             | ND                   | ND                | NA            | ND            | NA       | 1,100                                   |  |  |  |  |  |
| Thallium  | 0.000372 J     | 0.00028 B J          | NA                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Zinc  | 0.0625         | 0.0079 J             | ND                | NA            | 0.0245 J      | NA       | NE                                      |  |  |  |  |  |
| Mercury   | 0.0000545 J J3 | ND J3                | 0.0000542 J J3    | NA            | 0.0000686 B J | NA       | >\$                                     |  |  |  |  |  |
| Acetone   | ND             | ND                   | ND                | NA            | ND J4         | NA       | NE                                      |  |  |  |  |  |
| Acrolein  | ND J4          | ND J4                | ND J4             | NA            | ND J4         | NA       | NE                                      |  |  |  |  |  |
| Acrylonitrile   | ND             | ND                   | ND                | NA            | ND            | NA       | 0.25                                    |  |  |  |  |  |
| Benzene   | ND             | ND                   | ND                | NA            | ND            | NA       | 1.8                                     |  |  |  |  |  |
| Bromobenzene  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Bromodichlorometha  |                | ND                   | ND                | NA            | ND            | NA       | 0.45                                    |  |  |  |  |  |
| Bromoform   | ND             | ND                   | ND                | NA            | ND            | NA       | 14                                      |  |  |  |  |  |
| Bromomethane  | ND J3          | ND                   | ND J3             | NA            | ND            | NA       | 1.2                                     |  |  |  |  |  |
| N-butylbenzene  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Sec-butylbenzene  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Tert-Butylbenzene   | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Carbon tetrachloride  | ND             | ND                   | ND                | NA            | ND            | NA       | 1.8                                     |  |  |  |  |  |
| Chlorobenzene   | ND             | ND                   | ND                | NA            | ND            | NA       | 10                                      |  |  |  |  |  |
| Chlorodibromometha  | ne ND          | ND                   | ND                | NA            | ND            | NA       | 0.61                                    |  |  |  |  |  |
| Chloroethane  | ND J3          | ND                   | ND J3             | NA            | ND J4         | NA       | 2,400                                   |  |  |  |  |  |
| Chloroform  | ND             | ND                   | ND                | NA            | ND            | NA       | 0.72                                    |  |  |  |  |  |
| Chloromethane   | ND J3 J4       | ND                   | ND J3 J4          | NA            | ND            | NA       | 22                                      |  |  |  |  |  |
| 2-Chlorotoluene   | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 4-Chlorotoluene   | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 1,2-dibromo-3-chloro  |                | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 1,2-dibromoethane   | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Dibromomethane  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 1,2-dichlorobenzene   | ND             | ND                   | ND                | NA            | ND            | NA       | 37                                      |  |  |  |  |  |
| 1,3-dichlorobenzene   | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 1,4-dichlorobenzene<br>Dichlorodifluorometh                       | ND<br>ND       | ND<br>ND             | ND<br>ND          | NA<br>NA      | ND<br>ND      | NA       | 1.5<br>NE                               |  |  |  |  |  |
|   | ND ND          | ND                   | ND                | NA            | ND            | NA<br>NA | 10                                      |  |  |  |  |  |
| 1,1-dichloroethane<br>1,2-dichloroethane                          | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 1,1-dichloroethene  | ND J3          | ND                   | ND J3             | NA            | ND            | NA       | 44                                      |  |  |  |  |  |
| Cis-1,2-dichloroether   |                | ND                   | ND J3             | NA            | ND            | NA       | 18                                      |  |  |  |  |  |
| Trans-1,2-dichloroeth   |                | ND                   | ND                | NA            | ND            | NA       | 180                                     |  |  |  |  |  |
| 1,2-dichloropropane   | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
|   | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| <ul><li>1,1-dichloropropene</li><li>1,3-dichloropropane</li></ul> | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Cis-1,3-dichloroprope   |                | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Trans-1,3-dichloropro   |                | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 2,2-dichloropropane   | ND J3          | ND                   | ND J3             | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Di-isopropyl ether  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Ethylbenzene  | ND             | ND                   | ND                | NA            | ND            | NA       | 4.5                                     |  |  |  |  |  |
| Hexachloro-1,3-butac  | liene ND       | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Isopropylbenzene  | ND             | ND                   | ND                | NA            | ND            | NA       | 51                                      |  |  |  |  |  |
| P-isopropyltoluene  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 2-butanone (Mek)  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Methylene chloride  | ND             | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 4-methyl-2-pentanone  |                | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Methyl tert-butyl ethe  |                | ND                   | ND                | NA            | ND            | NA       | 63                                      |  |  |  |  |  |
| Naphthalene   | ND             | ND                   | 0.0249            | NA            | ND            | NA       | 0.5                                     |  |  |  |  |  |
| N-propylbenzene   | ND             | ND                   | 0.000686 J        | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| Styrene   | ND             | ND                   | ND                | NA            | ND            | NA       | 170                                     |  |  |  |  |  |
| 1,1,1,2-tetrachloroeth  |                | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 1,1,2,2-tetrachloroeth  |                | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |
| 1,1,2-trichlorotrifluor   |                | ND                   | ND J3             | NA            | ND            | NA       | > S                                     |  |  |  |  |  |
| Tetrachloroethene   | ND             | ND                   | ND                | NA            | ND            | NA       | 6                                       |  |  |  |  |  |
| Toluene   | ND             | ND                   | ND                | NA            | ND            | NA       | 220                                     |  |  |  |  |  |
| 1,2,3-trichlorobenzer   | e ND           | ND                   | ND                | NA            | ND            | NA       | NE                                      |  |  |  |  |  |



#### Table 21: SUMMARY OF BOILER AND POWERHOUSE GROUNDWATER CHEMICAL DATA

| Handback<br>Hardback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handba | lorobenzene<br>loroethane<br>loroethane<br>thene<br>uoromethane<br>loropropane<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>thylbenzene<br>ethylbenzene<br>thylbenzene<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene | BP-102-W<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | BP-109-W ND                      | r and Powerhous BP-119-W ND   | se Groundwater<br>BP-121-W<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA | BP-187-W<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | BP-202-W<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA | DEQ RBCs for Groundwater<br>in Excavation<br>Construction & Excavation<br>Worker<br>NE<br>1,100<br>0.049<br>0.43<br>160<br>NE<br>6<br>NE<br>8 |
|--|--|--|--|---|--|--|--|---|
| Handback<br>Hardback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handba | loroethane<br>loroethane<br>thene<br>uoromethane<br>loropropane<br>ethylbenzene<br>ethylbenzene<br>thylbenzene<br>thylbenzene<br>thylbenzene<br>thylbenzene<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>ene   | ND<br>ND<br>ND<br>ND<br>J3<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>J3 J4<br>ND<br>ND    | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND | ND<br>ND<br>ND<br>ND J3<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND J3 J4 | NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA   | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                   | NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA                               | Worker           NE           1,100           0.049           0.43           160           NE           6           NE                        |
| Handback<br>Hardback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handback<br>Handba | loroethane<br>loroethane<br>thene<br>uoromethane<br>loropropane<br>ethylbenzene<br>ethylbenzene<br>thylbenzene<br>thylbenzene<br>thylbenzene<br>thylbenzene<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>ene   | ND<br>ND<br>ND J3<br>ND<br>ND<br>ND<br>ND<br>ND<br>J3 J4<br>ND<br>ND                   | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND       | ND<br>ND<br>ND J3<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND J3 J4       | NA<br>NA<br>NA<br>NA<br>NA<br>NA<br>NA   | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                               | NA<br>NA<br>NA<br>NA<br>NA<br>NA                                     | 1,100<br>0.049<br>0.43<br>160<br>NE<br>6<br>NE  |
| 1,1,2-trichl         Trichloroett         Trichloroft         1,2,3-trichl         1,2,3-trime         1,2,3-trime         1,3,5-trime         Vinyl chlor         Xylenes, to         Anthracene         Acenaphthe         Benzo(a)an         Benzo(b)flu         Benzo(b)flu         Dibenz(a,h)         Fluoranther  | loroethane<br>thene<br>uoromethane<br>loropropane<br>ethylbenzene<br>ethylbenzene<br>thylbenzene<br>tide<br>otal<br>e  | ND<br>ND J3<br>ND<br>ND<br>ND<br>ND<br>ND J3 J4<br>ND<br>ND                            | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                   | ND<br>ND J3<br>ND<br>ND<br>ND<br>ND<br>ND<br>J3 J4                | NA<br>NA<br>NA<br>NA<br>NA<br>NA   | ND<br>ND<br>ND<br>ND<br>ND<br>ND   | NA<br>NA<br>NA<br>NA<br>NA   | 0.049<br>0.43<br>160<br>NE<br>6<br>NE   |
| Trichloroet         Trichloroft         Trichloroft         1,2,3-trichl         1,2,3-trime         1,2,3-trime         1,2,3-trime         1,3,5-trime         Vinyl chlor         Xylenes, to         Anthracene         Acenaphthe         Benzo(a)an         Benzo(b)flu         Benzo(c)k)flu         Chrysene         Dibenz(a,h         Fluoranther  | thene<br>uoromethane<br>loropropane<br>ethylbenzene<br>ethylbenzene<br>thylbenzene<br>ride<br>otal   | ND<br>ND J3<br>ND<br>ND<br>ND<br>ND<br>ND J3 J4<br>ND<br>ND                            | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                         | ND<br>ND J3<br>ND<br>ND<br>ND<br>ND<br>ND J3 J4                   | NA<br>NA<br>NA<br>NA<br>NA   | ND<br>ND<br>ND<br>ND<br>ND<br>ND   | NA<br>NA<br>NA<br>NA   | 0.43<br>160<br>NE<br>6<br>NE  |
| Henzo(a)an<br>Benzo(a)an<br>Benzo(b)flu<br>Benzo(b)flu<br>Chrysene<br>Fluoranther<br>Fluoranther   | uoromethane<br>loropropane<br>ethylbenzene<br>ethylbenzene<br>thylbenzene<br>ride<br>otal<br>e<br>ene  | ND J3<br>ND<br>ND<br>ND<br>ND J3 J4<br>ND<br>ND  | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>ND                               | ND J3<br>ND<br>ND<br>ND<br>ND<br>ND J3 J4                         | NA<br>NA<br>NA<br>NA   | ND<br>ND<br>ND<br>ND<br>ND   | NA<br>NA<br>NA<br>NA   | 160<br>NE<br>6<br>NE  |
| Handback<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harrishi<br>Harris | loropropane<br>ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>ride<br>otal<br>e<br>ene  | ND<br>ND<br>ND<br>ND J3 J4<br>ND<br>ND   | ND<br>ND<br>ND<br>ND<br>ND<br>ND                                     | ND<br>ND<br>ND<br>ND<br>ND J3 J4                                  | NA<br>NA<br>NA<br>NA   | ND<br>ND<br>ND<br>ND   | NA<br>NA<br>NA   | NE<br>6<br>NE   |
| High and the second sec   | ethylbenzene<br>ethylbenzene<br>ethylbenzene<br>ride<br>otal<br>e<br>ene   | ND<br>ND<br>ND J3 J4<br>ND<br>ND   | ND<br>ND<br>ND<br>ND<br>ND   | ND<br>ND<br>ND<br>ND J3 J4  | NA<br>NA<br>NA   | ND<br>ND<br>ND   | NA<br>NA   | 6<br>NE   |
| Harrow Ha   | ethylbenzene<br>ethylbenzene<br>ride<br>otal<br>e<br>ene   | ND<br>ND<br>ND J3 J4<br>ND<br>ND   | ND<br>ND<br>ND<br>ND   | ND<br>ND<br>ND J3 J4  | NA<br>NA   | ND<br>ND   | NA   | NE  |
| Harrow Constraints of the second seco   | ethylbenzene<br>ride<br>otal<br>e<br>ene   | ND<br>ND J3 J4<br>ND<br>ND   | ND<br>ND<br>ND   | ND<br>ND J3 J4  | NA   | ND   |  |   |
| Yinyl chlor<br>Xylenes, to<br>Anthracene<br>Acenaphth<br>Benzo(a)an<br>Benzo(a)flu<br>Benzo(b)flu<br>Benzo(b)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther  | ride<br>otal<br>e<br>ene   | ND J3 J4<br>ND<br>ND   | ND<br>ND   | ND J3 J4  |  |  | NA   | 0   |
| Xylenes, to         Anthracene         Acenaphthe         Acenaphthe         Benzo(a)an         Benzo(b)flu         Benzo(c),h,i         Benzo(k)flu         Chrysene         Dibenz(a,h         Fluoranthe         Fluorene   | otal<br>e<br>ene   | ND<br>ND   | ND   |   | NA   |  |  | 8   |
| Anthracene<br>Acenaphthe<br>Acenaphthe<br>Benzo(a)an<br>Benzo(a)py<br>Benzo(b)flu<br>Benzo(g,h,i<br>Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene   | e<br>iene  | ND   |  | ND  |  | ND   | NA   | 0.96  |
| Harrow Constant of Acenaphthe<br>Acenaphthe<br>Benzo(a)an<br>Benzo(b)flu<br>Benzo(b)flu<br>Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene  | ene  |  |  | ND  | NA   | ND   | NA   | 23  |
| Acenaphth<br>Benzo(a)an<br>Benzo(a)py<br>Benzo(b)flu<br>Benzo(g,h,i<br>Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene  |  | ND   | ND T8  | 0.000436  | ND   | ND   | ND   | >S  |
| Henzo(a)an<br>Benzo(a)py<br>Benzo(b)flu<br>Benzo(g,h,i<br>Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene   | ylene  |  | ND T8  | 0.00439   | ND   | ND   | ND   | >S  |
| Benzo(a)py<br>Benzo(b)flu<br>Benzo(g,h,i<br>Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene   |  | ND   | ND T8  | ND  | ND   | ND   | ND   | NE  |
| Henzo(b)flu<br>Benzo(g,h,i<br>Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene   | nthracene  | ND   | ND T8  | ND  | ND   | ND   | ND   | >S  |
| Benzo(g,h,i<br>Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene  | /rene  | ND   | ND T8  | ND  | ND   | ND   | ND   | >S  |
| Benzo(k)flu<br>Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene   | uoranthene   | 0.0000068 B J  | 0.00000535 J T8  | 0.000014 B J  | ND   | ND   | ND   | >\$   |
| H Chrysene<br>Dibenz(a,h<br>Fluoranther<br>Fluorene  | i)perylene   | 0.00000662 B J   | 0.00000313 J T8  | 0.000026 B J  | ND   | ND   | 0.00000589 B J   | NE  |
| dibenz(a,h<br>Fluoranther<br>Fluorene  | uoranthene   | ND   | ND T8  | ND  | ND   | ND   | ND   | >\$   |
| Fluoranther<br>Fluorene  |  | ND   | ND T8  | ND  | ND   | ND   | ND   | >\$   |
| Fluorene   | n)anthracene   | ND   | ND T8  | ND  | ND   | ND   | ND   | >\$   |
|  | ne   | ND   | ND T8  | ND  | ND   | ND   | ND   | >\$   |
|  |  | ND   | ND T8  | 0.00345   | ND   | ND   | ND   | >\$   |
| Indeno(1,2   | ,3-cd)pyrene   | ND   | ND T8  | ND  | ND   | ND   | ND   | >\$   |
| Naphthaler   | ne   | 0.0000978 B J  | ND T8  | 0.0423  | 0.0000872 J  | 0.0000305 B J  | 0.0000552 B J  | 0.5   |
| Phenanthre   | ene  | ND   | ND T8  | 0.0041  | ND   | ND   | ND   | NE  |
| Pyrene   |  | ND   | ND T8  | 0.000159 J  | ND   | ND   | ND   | > S   |
| 1-methylna   | aphthalene   | ND   | ND T8  | 0.103   | 0.000037 J   | ND   | ND   | NE  |
| 2-methylna   | aphthalene   | ND   | ND T8  | 0.0955  | 0.0000355 J  | ND   | ND   | NE  |
| 2-chlorona   | phthalene  | ND   | ND T8  | ND  | ND   | ND   | ND   | NE  |
| Diesel-Rang  | <u> </u>   | 0.0428 J   | NA   | 1.34  | NA   | 0.0577 J   | 0.0854 J   | >S  |
| Residual-Ran   | ge Organics  | ND   | NA   | 1.25  | NA   | 0.148 J  | 0.272  | >\$   |
| Gasoline-Ran   |  |  | NA   | 0.0929 J  | NA   | ND   | NA   | 14  |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

Bold: Value exceeds the RBC for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.



### Table 22: SUMMARY OF DEBARKER AREA SOIL CHEMICAL DATA

|                             |          |           |           |           |           |              | Co           | oncentration ( | mg/kg)    |           |          |             |  |                        |         |
|-----------------------------|----------|-----------|-----------|-----------|-----------|--------------|--------------|----------------|-----------|-----------|----------|-------------|--|------------------------|---------|
| Compound                    |          |           |           |           | D         | ebarker Area | Soil Samples |                |           |           |          |             | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |                        |         |
| compound                    | DB-159-7 | DB-161-13 | DB-161-30 | DB-162-10 | DB-162-21 | DB-163-11    | DB-165-10    | DB-166-11      | DB-169-12 | DB-169-16 | DB-170-1 | 3 DB-199-11 |  | Construction<br>Worker |         |
| Antimony                    | NA       | NA        | NA        | ND        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| Arsenic                     | NA       | NA        | NA        | 3.75      | NA        | NA           | NA           | NA             | NA        | NA        | NA       | 3.87        | 1.9  | 15                     | 420     |
| Beryllium                   | NA       | NA        | NA        | 0.122 J   | NA        | NA           | NA           | NA             | NA        | NA        | NA       | 0.104 J     | 2,300  | 700                    | 19,000  |
| Cadmium                     | NA       | NA        | NA        | ND        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 1,100  | 350                    | 9,700   |
| Chromium                    | NA       | NA        | NA        | 6.28      | NA        | NA           | NA           | NA             | NA        | NA        | NA       | 7.46        | 6.3  | 49                     | 1400    |
| Copper                      | NA       | NA        | NA        | 0.984 J   | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 47,000   | 14,000                 | 390,000 |
| Lead                        | NA       | NA        | NA        | 1.13      | NA        | NA           | NA           | NA             | NA        | NA        | NA       | 1.48        | 800  | 800                    | 800     |
| Nickel                      | NA       | NA        | NA        | 3.63      | NA        | NA           | NA           | NA             | NA        | NA        | NA       | 3.88        | 22,000   | 7,000                  | 190,000 |
| Selenium                    | NA       | NA        | NA        | ND        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| Silver                      | NA       | NA        | NA        | ND        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 5,800  | 1,800                  | 49,000  |
| Thallium                    | NA       | NA        | NA        | ND        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| Zinc                        | NA       | NA        | NA        | 7.89      | NA        | NA           | NA           | NA             | NA        | NA        | NA       | 8.18        | NE   | NE                     | NE      |
| Mercury                     | NA       | NA        | NA        | 0.0352 J3 | NA        | NA           | NA           | NA             | NA        | NA        | NA       | 0.00717 J   | 350  | 110                    | 2,900   |
| Acetone                     | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| Acrylonitrile               | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | NA          | 4  | 40                     | 1,100   |
| Benzene                     | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 37   | 380                    | 11,000  |
| Bromobenzene                | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | ,<br>NE |
| Bromodichloromethane        | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 15   | 230                    | 6,300   |
| Bromoform                   | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 260  | 2,700                  | 74,000  |
| Bromomethane                | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 750  | 370                    | 10,000  |
| N-butylbenzene              | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| Sec-butylbenzene            | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND J4       | NE   | NE                     | NE      |
| Tert-Butylbenzene           | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| Carbon tetrachloride        | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 34   | 320                    | 8,900   |
| Chlorobenzene               | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 8,700  | 4,700                  | 130,000 |
| Chlorodibromomethane        | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 17   | 210                    | 5,800   |
| Chloroethane                | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| Chloroform                  | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 26   | 410                    | 11,000  |
| Chloromethane               | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 25,000   | 25,000                 | 700,000 |
| 2-Chlorotoluene             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| 4-Chlorotoluene             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| 1,2-dibromo-3-chloropropane | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| 1,2-dibromoethane           | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 0.73   | 9                      | 250     |
| Dibromomethane              | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| 1,2-dichlorobenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 36,000   | 20,000                 | 560,000 |
| 1,3-dichlorobenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |
| 1,4-dichlorobenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | 64   | 1,300                  | 36,000  |
| Dichlorodifluoromethane     | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA       | ND          | NE   | NE                     | NE      |



### Table 22: SUMMARY OF DEBARKER AREA SOIL CHEMICAL DATA

|                                |          |           |           |           |           |              | Co           | oncentration ( | mg/kg)    |           |           |             |              |  |                      |
|--------------------------------|----------|-----------|-----------|-----------|-----------|--------------|--------------|----------------|-----------|-----------|-----------|-------------|--------------|--|----------------------|
| Compound                       |          |           |           |           | D         | ebarker Area | Soil Samples |                |           |           |           |             |              | or Soil Ingestion<br>ct, and Inhalatio |                      |
|                                | DB-159-7 | DB-161-13 | DB-161-30 | DB-162-10 | DB-162-21 | DB-163-11    | DB-165-10    | DB-166-11      | DB-169-12 | DB-169-16 | DB-170-13 | B DB-199-11 | Occupational | Construction<br>Worker                 | Excavation<br>Worker |
| 1,1-dichloroethane             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 260          | 3,200                                  | 89,000               |
| 1,2-dichloroethane             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,1-dichloroethene             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 29,000       | 13,000                                 | 370,000              |
| Cis-1,2-dichloroethene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 2,300        | 710                                    | 20,000               |
| Trans-1,2-dichloroethene       | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 23,000       | 7,100                                  | 200,000              |
| 1,2-dichloropropane            | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,1-dichloropropene            | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,3-dichloropropane            | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Cis-1,3-dichloropropene        | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Trans-1,3-dichloropropene      | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 2,2-dichloropropane            | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Di-isopropyl ether             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Ethylbenzene                   | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 150          | 1,700                                  | 49,000               |
| Hexachloro-1,3-butadiene       | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Isopropylbenzene               | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND J4       | 57,000       | 27,000                                 | 750,000              |
| P-isopropyltoluene             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 2-butanone (Mek)               | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Methylene chloride             | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 4-methyl-2-pentanone (Mibk)    | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Methyl tert-butyl ether        | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 1,100        | 12,000                                 | 320,000              |
| Naphthalene                    | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 23           | 580                                    | 16,000               |
| N-propylbenzene                | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Styrene                        | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 130,000      | 56,000                                 | >Max                 |
| 1,1,1,2-tetrachloroethane      | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,1,2,2-tetrachloroethane      | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,1,2-trichlorotrifluoroethane | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| Tetrachloroethene              | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 1,000        | 1,800                                  | 50,000               |
| Toluene                        | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 88,000       | 28,000                                 | 770,000              |
| 1,2,3-trichlorobenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,2,4-trichlorobenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,1,1-trichloroethane          | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 870,000      | 470,000                                | >Max                 |
| 1,1,2-trichloroethane          | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 26           | 54                                     | 1,500                |
| Trichloroethene                | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 51           | 130                                    | 3,700                |
| Trichlorofluoromethane         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | 130,000      | 69,000                                 | >Max                 |
| 1,2,3-trichloropropane         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,2,4-trimethylbenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND J4       | 6,900        | 6,900                                  | 81,000               |
| 1,2,3-trimethylbenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND          | NE           | NE                                     | NE                   |
| 1,3,5-trimethylbenzene         | NA       | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND J4       | 6,900        | 6,900                                  | 81,000               |



#### Table 22: SUMMARY OF DEBARKER AREA SOIL CHEMICAL DATA

|                         |           |           |           |           |           |              | Co           | oncentration ( | mg/kg)    |           |           |           |  |                        |                      |
|-------------------------|-----------|-----------|-----------|-----------|-----------|--------------|--------------|----------------|-----------|-----------|-----------|-----------|--|------------------------|----------------------|
| Compound                |           |           |           |           | D         | ebarker Area | Soil Samples |                |           |           |           |           | DEQ RBCs for Soil Ingestion, Dermal<br>Contact, and Inhalation |                        |                      |
|                         | DB-159-7  | DB-161-13 | DB-161-30 | DB-162-10 | DB-162-21 | DB-163-11    | DB-165-10    | DB-166-11      | DB-169-12 | DB-169-16 | DB-170-13 | DB-199-11 | Occupational   | Construction<br>Worker | Excavation<br>Worker |
| Vinyl chloride          | NA        | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND        | 4.4  | 34                     | 950                  |
| Xylenes, total          | NA        | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND        | 25,000   | 20,000                 | 560,000              |
| Anthracene              | ND        | 0.0014 J  | 0.00082 J | 0.288     | ND        | ND           | ND           | ND             | 0.00338 J | ND        | ND        | ND        | 350,000  | 110,000                | >Max                 |
| Acenaphthene            | ND        | 0.00681 J | 0.00247 J | 0.0372    | ND        | 0.00077 J    | 0.00253      | 0.00238 J      | 0.00439 J | 0.00190 J | ND        | ND        | 70,000   | 21,000                 | 590,000              |
| Acenaphthylene          | ND        | ND        | ND        | 0.0316    | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | NE   | NE                     | NE                   |
| Benzo(a)anthracene      | ND        | ND        | ND        | 0.0317    | 0.00077 J | ND           | ND           | 0.00235 J      | ND        | ND        | ND        | ND        | 21   | 170                    | 4,800                |
| Benzo(a)pyrene          | ND        | ND        | ND        | 0.201     | 0.00084 J | ND           | ND           | ND             | ND        | ND        | ND        | ND        | 2.1  | 17                     | 490                  |
| Benzo(b)fluoranthene    | 0.00784 J | ND        | ND        | 0.0471    | 0.00085 J | ND           | ND           | ND             | ND        | ND        | ND        | ND        | 21   | 170                    | 4,900                |
| Benzo(g,h,i)perylene    | ND        | ND        | ND        | 0.00998   | 0.00102 J | ND           | ND           | ND             | ND        | ND        | ND        | ND        | NE   | NE                     | NE                   |
| Benzo(k)fluoranthene    | ND        | ND        | ND        | 0.0527    | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | 210  | 1,700                  | 49,000               |
| Chrysene                | ND        | ND        | ND        | 0.123     | 0.0072 J  | ND           | ND           | ND             | ND        | ND        | ND        | ND        | 2,100  | 17,000                 | 490,000              |
| Dibenz(a,h)anthracene   | ND        | ND        | ND        | ND        | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | 2.1  | 17                     | 490                  |
| Fluoranthene            | 0.0295 J  | 0.00104 J | 0.00271 J | 0.0459    | ND        | ND           | ND           | 0.00106 J      | 0.00219 J | ND        | ND        | ND        | 30,000   | 10,000                 | 280,000              |
| Fluorene                | ND        | ND        | ND        | 0.111     | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | 47,000   | 14,000                 | 390,000              |
| Indeno(1,2,3-cd)pyrene  | ND        | ND        | ND        | 0.00203 J | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | 21   | 170                    | 4,900                |
| Naphthalene             | ND        | ND        | 0.00288 J | 0.0108 J  | ND        | ND           | 0.00233 J    | ND             | 0.00273 J | ND        | ND        | ND        | 23   | 580                    | 16,000               |
| Phenanthrene            | 0.0074 J  | ND        | 0.00352 J | 0.510     | ND        | 0.00086 J    | 0.0011 J     | 0.000795 J     | 0.00301 J | ND        | ND        | ND        | NE   | NE                     | NE                   |
| Pyrene                  | 0.00746 J | ND        | 0.0013 J  | 0.0979    | ND        | ND           | 0.00073 J    | ND             | 0.00146 J | ND        | ND        | ND        | 23,000   | 7,500                  | 210,000              |
| 1-methylnaphthalene     | ND        | ND        | ND        | 0.0671    | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | NE   | NE                     | NE                   |
| 2-methylnaphthalene     | ND        | ND        | ND        | 0.00496 J | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | NE   | NE                     | NE                   |
| 2-chloronaphthalene     | ND        | ND        | ND        | ND        | ND        | ND           | ND           | ND             | ND        | ND        | ND        | ND        | NE   | NE                     | NE                   |
| Total PCBs              | NA        | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | NA        | 0.59   | 4.9                    | 140                  |
| Diesel-Range Organics   | NA        | NA        | NA        | 1,480     | ND        | ND           | NA           | 1.6 J          | ND        | ND        | ND        | ND        | 14,000   | 4,600                  | >Max                 |
| Residual-Range Organics | NA        | NA        | NA        | 6,130     | ND        | 26           | NA           | 17.3           | 4.15      | ND J3     | ND        | ND        | 14,000   | 4,600                  | >Max                 |
| Gasoline-Range Organics | NA        | NA        | NA        | NA        | NA        | NA           | NA           | NA             | NA        | NA        | NA        | ND        | 20,000   | 9,700                  | >Max                 |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

V3: The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. Below detection limit (BDL) results will be unaffected.

NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this scenario.

Bold: Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.



#### Table 23: SUMMARY OF DEBARKER GROUNDWATER CHEMICAL DATA

|        |   |          | Conc                 |             |  |  |  |
|--------|---|----------|----------------------|-------------|--|--|--|
|        | Compound  | Deb      | arker Groundwater Sa | -           | DEQ RBCs for Groundwater<br>in Excavation<br>Construction & Excavation |  |  |
|        |   | DB-162-W | DB-163-W             | DB-199-W    | Worker   |  |  |
|        | Antimony  | NA       | ND                   | NA          | NE   |  |  |
|        | Arsenic   | NA       | 0.0125               | NA          | 6.3  |  |  |
|        | Beryllium<br>Cadmium                                | NA<br>NA | ND<br>ND             | ND<br>ND    | 270<br>130   |  |  |
|        | Chromium  | NA       | 0.119                | 0.0396      | 9.4  |  |  |
|        | Copper  | NA       | 0.0304               | 0.0390      | 5,400  |  |  |
| Metals | Lead  | NA       | 0.0119               | 0.00701     | >\$  |  |  |
| Me     | Nickel  | NA       | 0.0421               | 0.0473      | >\$  |  |  |
|        | Selenium  | NA       | ND                   | ND          | NE   |  |  |
|        | Silver  | NA       | ND                   | ND          | 1,100  |  |  |
|        | Thallium  | NA       | 0.000207 J           | NA          | ND   |  |  |
|        | Zinc  | NA       | 0.0682               | 0.0368 J    | NE   |  |  |
|        | Mercury   | NA       | 0.0000958 B J        | 0.0000602 J | >\$  |  |  |
|        | Acetone   | ND J3    | ND J4                | ND          | NE   |  |  |
|        | Acrolein  | ND       | ND J4                | ND J4       | NE   |  |  |
|        | Acrylonitrile                                       | ND       | ND                   | ND          | 0.25   |  |  |
|        | Benzene   | ND       | ND                   | ND          | 1.8  |  |  |
|        | Bromobenzene  | ND       | ND                   | ND          | NE   |  |  |
|        | Bromodichloromethane                                | ND       | ND                   | ND          | 0.45   |  |  |
|        | Bromoform   | ND       | ND                   | ND          | 14   |  |  |
|        | Bromomethane  | ND       | ND                   | ND          | 1.2  |  |  |
|        | N-butylbenzene                                      | ND       | ND                   | ND          | NE   |  |  |
|        | Sec-butylbenzene                                    | ND       | ND                   | ND          | NE   |  |  |
|        | Tert-Butylbenzene                                   | ND       | ND                   | ND          | NE<br>1.0  |  |  |
|        | Carbon tetrachloride<br>Chlorobenzene               | ND<br>ND | ND<br>ND             | ND<br>ND    | 1.8  |  |  |
|        | Chlorodibromomethane                                | ND       | ND                   | ND          | 0.61   |  |  |
|        | Chloroethane  | ND       | ND J4                | ND          | 2,400  |  |  |
|        | Chloroform  | ND       | ND                   | ND          | 0.72   |  |  |
|        | Chloromethane                                       | ND       | ND                   | ND          | 22   |  |  |
|        | 2-Chlorotoluene                                     | ND       | ND                   | ND          | NE   |  |  |
|        | 4-Chlorotoluene                                     | ND       | ND                   | ND          | NE   |  |  |
|        | 1,2-dibromo-3-chloropropane                         | ND       | ND                   | ND          | NE   |  |  |
|        | 1,2-dibromoethane                                   | ND       | ND                   | ND          | NE   |  |  |
|        | Dibromomethane                                      | ND       | ND                   | ND          | NE   |  |  |
|        | 1,2-dichlorobenzene                                 | ND       | ND                   | ND          | 37   |  |  |
|        | 1,3-dichlorobenzene                                 | ND       | ND                   | ND          | NE   |  |  |
|        | 1,4-dichlorobenzene                                 | ND       | ND                   | ND          | 1.5  |  |  |
|        | Dichlorodifluoromethane                             | ND       | ND                   | ND          | NE   |  |  |
|        | 1,1-dichloroethane                                  | ND       | ND                   | ND          | 10   |  |  |
|        | 1,2-dichloroethane                                  | ND       | ND                   | ND          | NE   |  |  |
|        | 1,1-dichloroethene                                  | ND       | ND                   | ND          | 44   |  |  |
|        | Cis-1,2-dichloroethene                              | ND       | ND                   | ND          | 18   |  |  |
|        | Trans-1,2-dichloroethene<br>1,2-dichloropropane     | ND<br>ND | ND<br>ND             | ND<br>ND    | 180<br>NE  |  |  |
| S      | 1,1-dichloropropene                                 | ND       | ND                   | ND          | NE   |  |  |
| NUCS   | 1,3-dichloropropane                                 | ND       | ND                   | ND          | NE   |  |  |
|        | Cis-1,3-dichloropropene                             | ND       | ND                   | ND          | NE   |  |  |
|        | Trans-1,3-dichloropropene                           | ND       | ND                   | ND          | NE   |  |  |
|        | 2,2-dichloropropane                                 | ND       | ND                   | ND          | NE   |  |  |
|        | Di-isopropyl ether                                  | ND       | ND                   | ND          | NE   |  |  |
|        | Ethylbenzene  | ND       | ND                   | ND          | 4.5  |  |  |
|        | Hexachloro-1,3-butadiene                            | ND       | ND                   | ND          | NE   |  |  |
|        | Isopropylbenzene                                    | ND       | ND                   | ND          | 51   |  |  |
|        | P-isopropyltoluene                                  | ND       | ND                   | ND          | NE   |  |  |
|        | 2-butanone (Mek)                                    | ND       | ND                   | ND          | NE   |  |  |
|        | Methylene chloride                                  | ND       | ND                   | ND          | NE   |  |  |
|        | 4-methyl-2-pentanone (Mibk)                         | ND       | ND                   | ND          | NE   |  |  |
|        | Methyl tert-butyl ether                             | ND       | ND                   | ND          | 63   |  |  |
|        | Naphthalene   | ND       | ND                   | ND          | 0.5  |  |  |
|        | N-propylbenzene                                     | ND       | ND                   | ND          | NE   |  |  |
|        | Styrene   | ND       | ND                   | ND          | 170  |  |  |
|        | 1,1,1,2-tetrachloroethane                           | ND       | ND                   | ND          | NE   |  |  |
|        | 1,1,2,2-tetrachloroethane                           | ND       | ND                   | ND          | NE   |  |  |
|        | 1,1,2-trichlorotrifluoroethane<br>Tetrachloroethene | ND<br>ND | ND<br>ND             | ND<br>ND    | >5   |  |  |
|        | Toluene   | ND<br>ND | ND<br>ND             | ND<br>ND    | 6<br>220   |  |  |
|        | ioluciic  | IND.     | IND.                 | IND         | 220  |  |  |



|                         | Concentration (mg/L) |                     |                |   |  |  |  |  |  |  |
|-------------------------|----------------------|---------------------|----------------|---|--|--|--|--|--|--|
| Compound                | Deba                 | arker Groundwater S | amples         | DEQ RBCs for Groundwater<br>in Excavation |  |  |  |  |  |  |
|                         | DB-162-W             | DB-163-W            | DB-199-W       | Construction & Excavation<br>Worker       |  |  |  |  |  |  |
| 1,2,4-trichlorobenzene  | ND                   | ND                  | ND             | NE  |  |  |  |  |  |  |
| 1,1,1-trichloroethane   | ND                   | ND                  | ND             | 1,100                                     |  |  |  |  |  |  |
| 1,1,2-trichloroethane   | ND                   | ND                  | ND             | 0.049                                     |  |  |  |  |  |  |
| Trichloroethene         | ND                   | ND                  | ND             | 0.43                                      |  |  |  |  |  |  |
| Trichlorofluoromethane  | ND                   | ND                  | ND             | 160                                       |  |  |  |  |  |  |
| 1,2,3-trichloropropane  | ND                   | ND                  | ND             | NE  |  |  |  |  |  |  |
| 1,2,4-trimethylbenzene  | ND                   | ND                  | ND             | 6   |  |  |  |  |  |  |
| 1,2,3-trimethylbenzene  | 0.000369 J           | ND                  | ND             | NE  |  |  |  |  |  |  |
| 1,3,5-trimethylbenzene  | ND                   | ND                  | ND             | 8   |  |  |  |  |  |  |
| Vinyl chloride          | ND                   | ND                  | ND             | 0.96                                      |  |  |  |  |  |  |
| Xylenes, total          | ND                   | ND                  | ND             | 23  |  |  |  |  |  |  |
| Anthracene              | 0.0000575            | ND                  | ND             | >\$                                       |  |  |  |  |  |  |
| Acenaphthene            | 0.000205             | 0.00466             | ND             | > \$                                      |  |  |  |  |  |  |
| Acenaphthylene          | ND                   | ND                  | ND             | NE  |  |  |  |  |  |  |
| Benzo(a)anthracene      | ND                   | ND                  | ND             | > \$                                      |  |  |  |  |  |  |
| Benzo(a)pyrene          | ND                   | ND                  | ND             | >\$                                       |  |  |  |  |  |  |
| Benzo(b)fluoranthene    | ND                   | ND                  | ND             | >\$                                       |  |  |  |  |  |  |
| Benzo(g,h,i)perylene    | ND                   | ND                  | 0.00000504 J B | NE  |  |  |  |  |  |  |
| Benzo(k)fluoranthene    | ND                   | ND                  | ND             | > S                                       |  |  |  |  |  |  |
| Chrysene                | ND                   | ND                  | ND             | >\$                                       |  |  |  |  |  |  |
| Dibenz(a,h)anthracene   | ND J3                | ND                  | 0.00000462 J   | >5  |  |  |  |  |  |  |
| Fluoranthene            | 0.0000182 J          | ND                  | ND             | >5  |  |  |  |  |  |  |
| Fluorene                | 0.000178             | 0.0000207 J         | ND             | > S                                       |  |  |  |  |  |  |
| Indeno(1,2,3-cd)pyrene  | ND J3                | ND                  | ND             | >5  |  |  |  |  |  |  |
| Naphthalene             | 0.0000266 J          | 0.000065 B J        | 0.0000462 J B  | 0.5                                       |  |  |  |  |  |  |
| Phenanthrene            | 0.000325             | 0.0000245 J         | ND             | NE  |  |  |  |  |  |  |
| Pyrene                  | 0.0000154 J          | ND                  | ND             | > \$                                      |  |  |  |  |  |  |
| 1-methylnaphthalene     | 0.000206 J           | 0.00000952 J        | ND             | NE  |  |  |  |  |  |  |
| 2-methylnaphthalene     | 0.0000266 J          | 0.0000131 J         | ND             | NE  |  |  |  |  |  |  |
| 2-chloronaphthalene     | ND                   | ND                  | ND             | NE  |  |  |  |  |  |  |
| Diesel-Range Organics   | NA                   | 0.0494 J            | NA             | >\$                                       |  |  |  |  |  |  |
| Residual-Range Organics | NA                   | ND                  | NA             | >5  |  |  |  |  |  |  |
| Gasoline-Range Organics | NA                   | 0.0324 B J          | ND             | 14  |  |  |  |  |  |  |

#### Table 23: SUMMARY OF DEBARKER GROUNDWATER CHEMICAL DATA

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: Compound not analyzed for this sample.

B: The same analyte is found in the associated blank.

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

J3: The associated batch QC was outside the established quality control range for precision.

J4: The associated batch QC was outside the established quality control range for accuracy

NE: Value not established.

T8: Sample(s) received past/too close to holding time expiration.

>S: The groundwater Risk-Based Concentration exceeds the solubility limit.

**Bold:** Value exceeds the Risk-Based Concentration for groundwater in excavation for the construction and excavation worker receptor scenario for this compound.



|             |   | Fire Suppression AST Soil Sample | entration (mg/kg)<br>DEQ RBCs for Soil Ingestion, Dermal |                                   |                  |  |  |
|-------------|---|----------------------------------|--|-----------------------------------|------------------|--|--|
|             | Compound                                  |                                  |  | ct, and Inhalatio<br>Construction |                  |  |  |
|             |   | FSDAST                           | Occupational   | Worker                            | Worker           |  |  |
|             | Antimony                                  | 4.55                             | NE   | NE                                | NE               |  |  |
|             | Arsenic                                   | 3.07                             | 1.9  | 15                                | 420              |  |  |
|             | Beryllium                                 | 0.0899 J                         | 2,300  | 700                               | 19,000           |  |  |
|             | Cadmium                                   | 1.01                             | 1,100  | 350                               | 9,700            |  |  |
|             | Chromium                                  | 743                              | 6.3  | 49                                | 1400             |  |  |
| als         | Copper                                    | 126<br>202                       | 47,000   | 14,000<br>800                     | 390,000          |  |  |
| Metals      | Lead<br>Nickel                            | -                                | 800  |                                   | 800              |  |  |
|             | Selenium                                  | 346<br>ND                        | 22,000<br>NE   | 7,000<br>NE                       | 190,000<br>NE    |  |  |
|             | Silver                                    | ND                               | 5,800  | 1,800                             | 49,000           |  |  |
|             | Thallium                                  | ND                               | 5,800<br>NE  | NE                                | 49,000<br>NE     |  |  |
|             | Zinc                                      | 543                              | NE   | NE                                | NE               |  |  |
|             |   | 0.0644                           | 350  |                                   | 2,900            |  |  |
|             | Mercury                                   |                                  |  | 110                               | ,                |  |  |
|             | Acetone                                   | NA                               | NE   | NE                                | NE               |  |  |
|             | Acrylonitrile                             | NA                               | 4  | 40                                | 1,100            |  |  |
|             | Benzene                                   | NA                               | 37   | 380                               | 11,000           |  |  |
|             | Bromobenzene                              | NA                               | NE<br>1E   | NE                                | NE               |  |  |
|             | Bromodichloromethane                      | NA                               | 15   | 230                               | 6,300            |  |  |
|             | Bromoform<br>Bromomethano                 | NA                               | 260  | 2,700                             | 74,000           |  |  |
|             | Bromomethane                              | NA                               | 750  | 370                               | 10,000           |  |  |
|             | N-butylbenzene                            | NA                               | NE<br>NE   | NE<br>NE                          | NE<br>NE         |  |  |
|             | Sec-butylbenzene                          | NA                               |  |                                   |                  |  |  |
|             | Tert-Butylbenzene<br>Carbon tetrachloride | NA                               | NE<br>34   | NE                                | NE<br>8.000      |  |  |
|             | Carbon tetrachioride<br>Chlorobenzene     | NA                               |  | 320                               | 8,900            |  |  |
|             | Chlorodibromomethane                      | NA                               | 8,700  | 4,700                             | 130,000<br>5,800 |  |  |
|             | Chloroethane                              | NA                               | 17<br>NE   | 210<br>NE                         | 5,800<br>NE      |  |  |
|             | Chloroform                                | NA                               | 26   | 410                               | 11,000           |  |  |
|             | Chloromethane                             | NA                               | 25,000   |                                   | 700,000          |  |  |
|             | 2-Chlorotoluene                           | NA                               | 25,000<br>NE   | 25,000<br>NE                      | 700,000<br>NE    |  |  |
|             | 4-Chlorotoluene                           | NA                               | NE   | NE                                | NE               |  |  |
|             | 1,2-dibromo-3-chloropropane               | NA                               | NE   | NE                                | NE               |  |  |
|             | 1,2-dibromoethane                         | NA                               | 0.73   | 9                                 | 250              |  |  |
|             | Dibromomethane                            | NA                               | NE   | NE                                | NE               |  |  |
|             | 1,2-dichlorobenzene                       | NA                               | 36,000   | 20,000                            | 560,000          |  |  |
|             | 1,3-dichlorobenzene                       | NA                               | NE   | 20,000<br>NE                      | NE               |  |  |
|             | 1,4-dichlorobenzene                       | NA                               | 64   | 1,300                             | 36,000           |  |  |
|             | Dichlorodifluoromethane                   | NA                               | NE   | NE                                | NE               |  |  |
|             | 1,1-dichloroethane                        | NA                               | 260  | 3,200                             | 89,000           |  |  |
|             | 1,2-dichloroethane                        | NA                               | NE   | NE                                | NE               |  |  |
|             | 1,1-dichloroethene                        | NA                               | 29,000   | 13,000                            | 370,000          |  |  |
|             | Cis-1,2-dichloroethene                    | NA                               | 2,300  | 710                               | 20,000           |  |  |
|             | Trans-1,2-dichloroethene                  | NA                               | 23,000   | 7,100                             | 200,000          |  |  |
|             | 1,2-dichloropropane                       | NA                               | NE   | NE                                | 200,000<br>NE    |  |  |
|             | 1,1-dichloropropene                       | NA                               | NE   | NE                                | NE               |  |  |
| s<br>n<br>n | 1,3-dichloropropane                       | NA                               | NE   | NE                                | NE               |  |  |
| >           | Cis-1,3-dichloropropene                   | NA                               | NE   | NE                                | NE               |  |  |
|             | Trans-1,3-dichloropropene                 | NA                               | NE   | NE                                | NE               |  |  |
|             | 2,2-dichloropropane                       | NA                               | NE   | NE                                | NE               |  |  |
|             | Di-isopropyl ether                        | NA                               | NE   | NE                                | NE               |  |  |
|             | Ethylbenzene                              | NA                               | 150  | 1,700                             | 49,000           |  |  |
|             | Hexachloro-1,3-butadiene                  | NA                               | NE   | NE                                | +3,000<br>NE     |  |  |
|             | Isopropylbenzene                          | NA                               | 57,000   | 27,000                            | 750,000          |  |  |
|             | P-isopropyltoluene                        | NA                               | NE   | NE                                | NE               |  |  |
|             | 2-butanone (Mek)                          | NA                               | NE   | NE                                | NE               |  |  |
|             | Methylene chloride                        | NA                               | NE   | NE                                | NE               |  |  |
|             | 4-methyl-2-pentanone (Mibk)               | NA                               | NE   | NE                                | NE               |  |  |
|             | Methyl tert-butyl ether                   | NA                               | 1,100  | 12,000                            | 320,000          |  |  |
|             | Naphthalene                               | NA                               | 23   | 580                               | 16,000           |  |  |
|             | N-propylbenzene                           | NA                               | NE   | NE                                | NE               |  |  |
|             | Styrene                                   | NA                               | 130,000  | 56,000                            | >Max             |  |  |
|             | 1,1,1,2-tetrachloroethane                 | NA                               | NE   | NE                                | NE               |  |  |
|             | 1,1,2,2-tetrachloroethane                 | NA                               | NE   | NE                                | NE               |  |  |
|             | 1,1,2-trichlorotrifluoroethane            | NA                               | NE   | NE                                | NE               |  |  |
|             | Tetrachloroethene                         | NA                               | 1,000  | 1,800                             | 50,000           |  |  |
|             | Toluene                                   | NA                               | 88,000   | 28,000                            | 770,000          |  |  |
|             | 1,2,3-trichlorobenzene                    | NA                               | NE   | 28,000<br>NE                      | 770,000<br>NE    |  |  |
|             |   | 1.1/1                            |  | 1 1 1                             | 1 1 1            |  |  |



|      |                         | Conce                            | entration (mg/kg) |                        |                      |
|------|-------------------------|----------------------------------|-------------------|------------------------|----------------------|
|      |                         | Fire Suppression AST Soil Sample |                   | or Soil Ingestion      | , Dermal             |
|      | Compound                | Fire Suppression AST Soll Sample | Conta             | ct, and Inhalatio      |                      |
|      |                         | FSDAST                           | Occupational      | Construction<br>Worker | Excavation<br>Worker |
|      | 1,1,1-trichloroethane   | NA                               | 870,000           | 470,000                | >Max                 |
|      | 1,1,2-trichloroethane   | NA                               | 26                | 54                     | 1,500                |
|      | Trichloroethene         | NA                               | 51                | 130                    | 3,700                |
|      | Trichlorofluoromethane  | NA                               | 130,000           | 69,000                 | >Max                 |
|      | 1,2,3-trichloropropane  | NA                               | NE                | NE                     | NE                   |
|      | 1,2,4-trimethylbenzene  | NA                               | 6,900             | 6,900                  | 81,000               |
|      | 1,2,3-trimethylbenzene  | NA                               | NE                | NE                     | NE                   |
|      | 1,3,5-trimethylbenzene  | NA                               | 6,900             | 6,900                  | 81,000               |
|      | Vinyl chloride          | NA                               | 4.4               | 34                     | 950                  |
|      | Xylenes, total          | NA                               | 25,000            | 20,000                 | 560,000              |
|      | Anthracene              | 0.0459 J                         | 350,000           | 110,000                | >Max                 |
|      | Acenaphthene            | 0.0135 J                         | 70,000            | 21,000                 | 590,000              |
|      | Acenaphthylene          | 0.0177 J                         | NE                | NE                     | NE                   |
|      | Benzo(a)anthracene      | 0.0362 J                         | 21                | 170                    | 4,800                |
|      | Benzo(a)pyrene          | 0.00989 J                        | 2.1               | 17                     | 490                  |
|      | Benzo(b)fluoranthene    | 0.0144 J                         | 21                | 170                    | 4,900                |
|      | Benzo(g,h,i)perylene    | 0.0109 J                         | NE                | NE                     | NE                   |
|      | Benzo(k)fluoranthene    | ND                               | 210               | 1,700                  | 49,000               |
| (0   | Chrysene                | 0.0176 J                         | 2,100             | 17,000                 | 490,000              |
| PAHs | Dibenz(a,h)anthracene   | ND                               | 2.1               | 17                     | 490                  |
| Ъ    | Fluoranthene            | 0.0755                           | 30,000            | 10,000                 | 280,000              |
|      | Fluorene                | 0.0257 J                         | 47,000            | 14,000                 | 390,000              |
|      | Indeno(1,2,3-cd)pyrene  | 0.0075 J                         | 21                | 170                    | 4,900                |
|      | Naphthalene             | 0.166 J                          | 23                | 580                    | 16,000               |
|      | Phenanthrene            | 0.177                            | NE                | NE                     | NE                   |
|      | Pyrene                  | 0.127                            | 23,000            | 7,500                  | 210,000              |
|      | 1-methylnaphthalene     | 0.0939 J                         | NE                | NE                     | NE                   |
|      | 2-methylnaphthalene     | 0.248                            | NE                | NE                     | NE                   |
|      | 2-chloronaphthalene     | ND                               | NE                | NE                     | NE                   |
|      | Total PCBs              | NA                               | 0.59              | 4.9                    | 140                  |
|      | Diesel-Range Organics   | 701                              | 14,000            | 4,600                  | >Max                 |
|      | Residual-Range Organics | 361                              | 14,000            | 4,600                  | >Max                 |
|      | Gasoline-Range Organics | NA                               | 20,000            | 9,700                  | >Max                 |
|      |                         |                                  | 1                 |                        |                      |

Notes:

ND: Not detected at concentration greater than method detection limit.

NA: NA: Compound not analyzed for this sample.

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

J3: The associated batch QC was outside the established quality control range for precision.

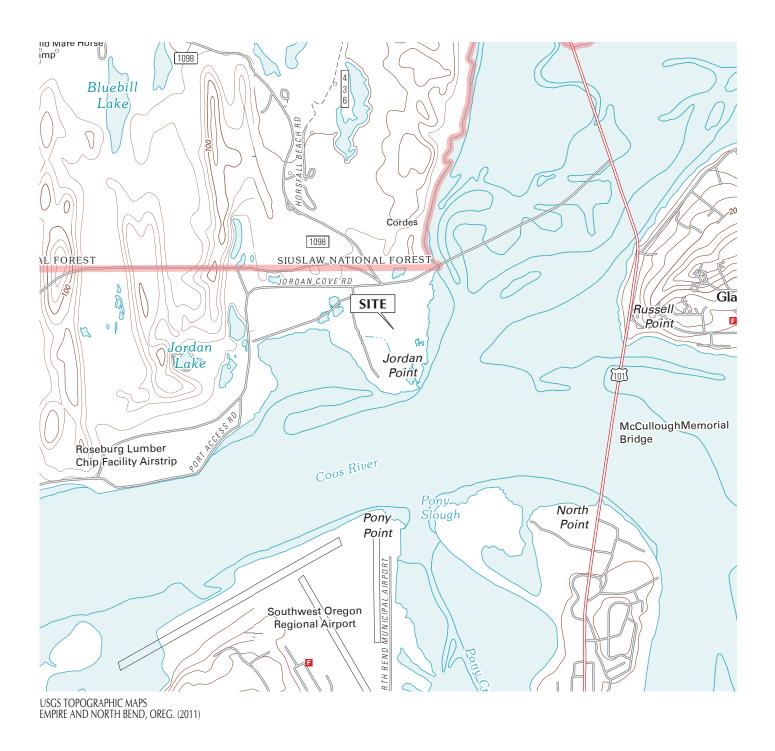
V3: The internal standard exhibited poor recovery due to sample matrix interference.

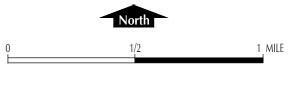
The analytical results will be biased high. Below detection limit (BDL) results will NE: Value not established.

>Max: The constituent Risk-Based Concentration for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed not to pose risks in this

**Bold:** Value exceeds the Risk-Based Concentration for soil ingestion, dermal contact, and inhalation for the occupational receptor scenario for this compound.







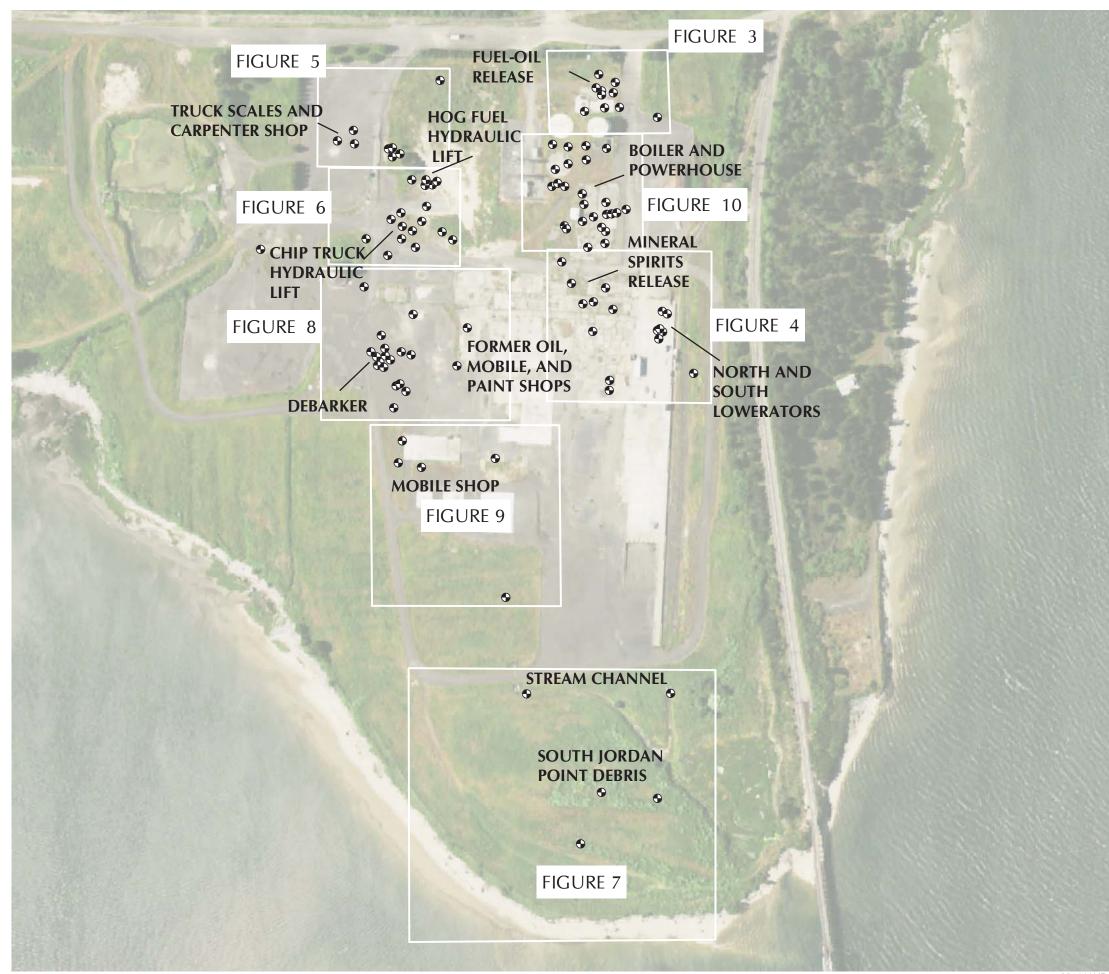


JORDAN COVE, LLC DATA GAP INVESTIGATION

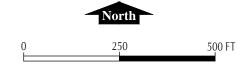
# VICINITY MAP

JULY 2018

JOB NO. 5764-1195





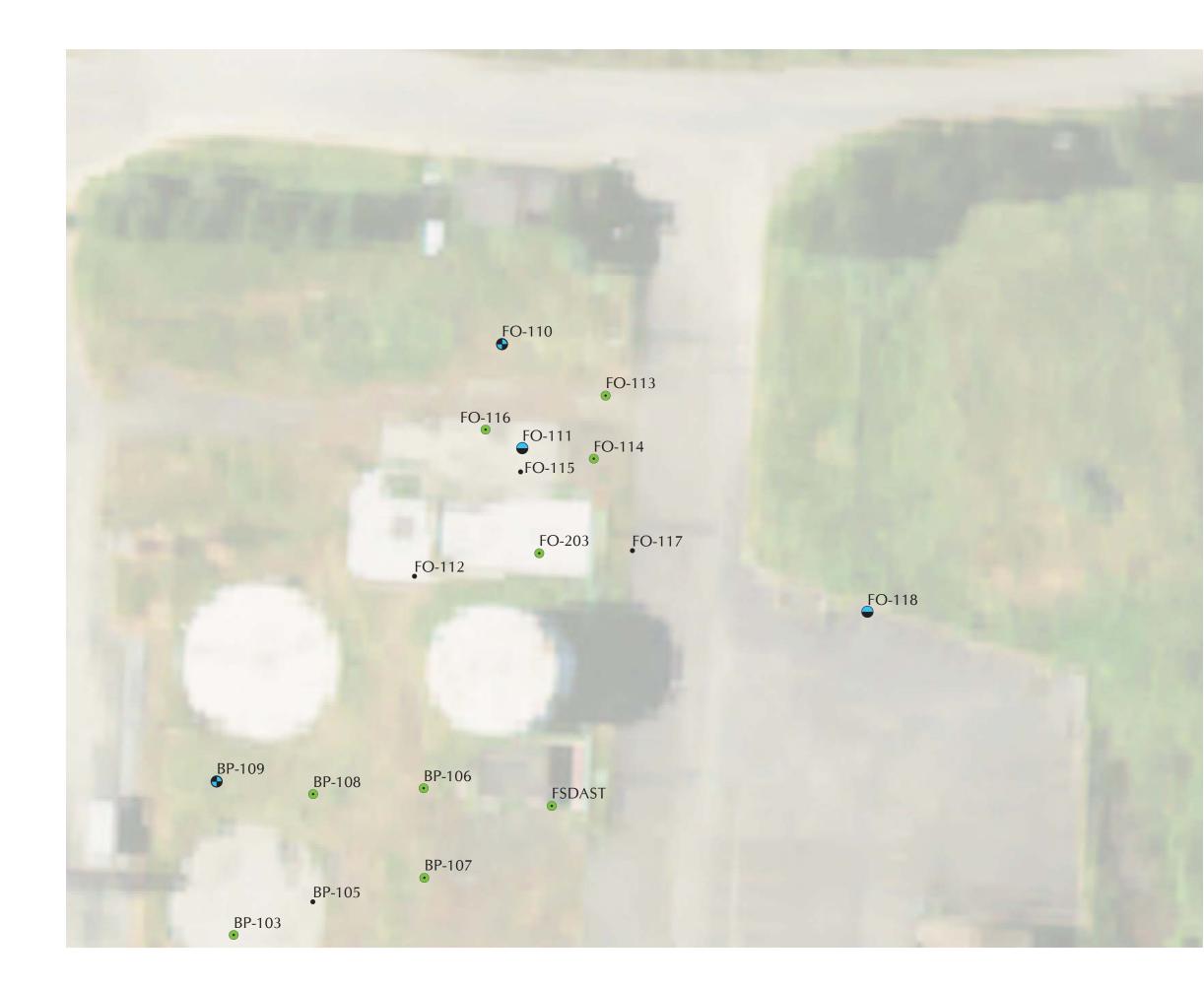




# **EXPLORATION LOCATIONS**

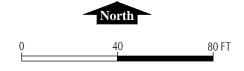
JULY 2018

JOB NO. 5764-1195



- SOIL AND GROUNDWATER ANALYZED
- GROUNDWATER SAMPLE ANALYZED
- SOIL SAMPLE ANALYZED ullet
- FIELD SCREENED : NO ANALYSIS ٠

2014 NAIP AERIAL PHOTO





## EXPLORATION LOCATIONS (FUEL OIL RELEASE AREA)

JULY 2018

JOB NO. 5764-1195

FIG. 3

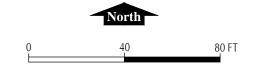






- GROUNDWATER SAMPLE ANALYZED •
- SOIL SAMPLE ANALYZED ullet
- FIELD SCREENED : NO ANALYSIS ٠

2014 NAIP AERIAL PHOTO





# EXPLORATION LOCATIONS (MINERAL SPIRITS AND LOWERATORS)

JULY 2018

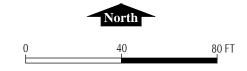
JOB NO. 5764-1195

FIG. 4



- SOIL AND GROUNDWATER ANALYZED
- GROUNDWATER SAMPLE ANALYZED
- SOIL SAMPLE ANALYZED  $\bullet$
- FIELD SCREENED : NO ANALYSIS ٠

2014 NAIP AERIAL PHOTO





## EXPLORATION LOCATIONS (TRUCK SCALES AND CARPENTER SHOP)

JULY 2018

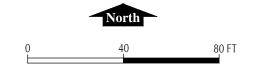
JOB NO. 5764-1195

FIG. 5



- SOIL AND GROUNDWATER ANALYZED
- GROUNDWATER SAMPLE ANALYZED  $\bigcirc$
- SOIL SAMPLE ANALYZED  $\bullet$
- FIELD SCREENED : NO ANALYSIS ۰

2014 NAIP AERIAL PHOTO





# EXPLORATION LOCATIONS (CHIP TRUCK LIFT AND HOG FUEL LIFT)

JULY 2018

JOB NO. 5764-1195

FIG. 6



 $\bullet$ 

٠

orth 150 FT 75

SOIL AND GROUNDWATER ANALYZED

GROUNDWATER SAMPLE ANALYZED

FIELD SCREENED : NO ANALYSIS

SOIL SAMPLE ANALYZED

2014 NAIP AERIAL PHOTO





# EXPLORATION LOCATIONS (JORDAN POINT AND STREAM CHANNEL AREA)

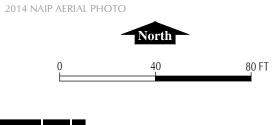
JULY 2018

JOB NO. 5764-1195

FIG. 7



- SOIL AND GROUNDWATER ANALYZED
- GROUNDWATER SAMPLE ANALYZED •
- SOIL SAMPLE ANALYZED ullet
- FIELD SCREENED : NO ANALYSIS •





## EXPLORATION LOCATIONS (FORMER SHOPS AND DEBARKER)

JULY 2018

JOB NO. 5764-1195

FIG. 8



JOB NO. 5764-1195

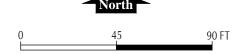
EXPLORATION LOCATIONS

(MOBILE SHOPS)

FIG. 9

Reissued for Use





2014 NAIP AERIAL PHOTO

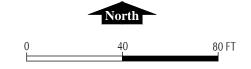
- FIELD SCREENED : NO ANALYSIS
- SOIL SAMPLE ANALYZED
- GROUNDWATER SAMPLE ANALYZED
- SOIL AND GROUNDWATER ANALYZED

EXPLORATION LOCATION



- SOIL AND GROUNDWATER ANALYZED
- GROUNDWATER SAMPLE ANALYZED •
- SOIL SAMPLE ANALYZED •
- FIELD SCREENED : NO ANALYSIS •

2014 NAIP AERIAL PHOTO



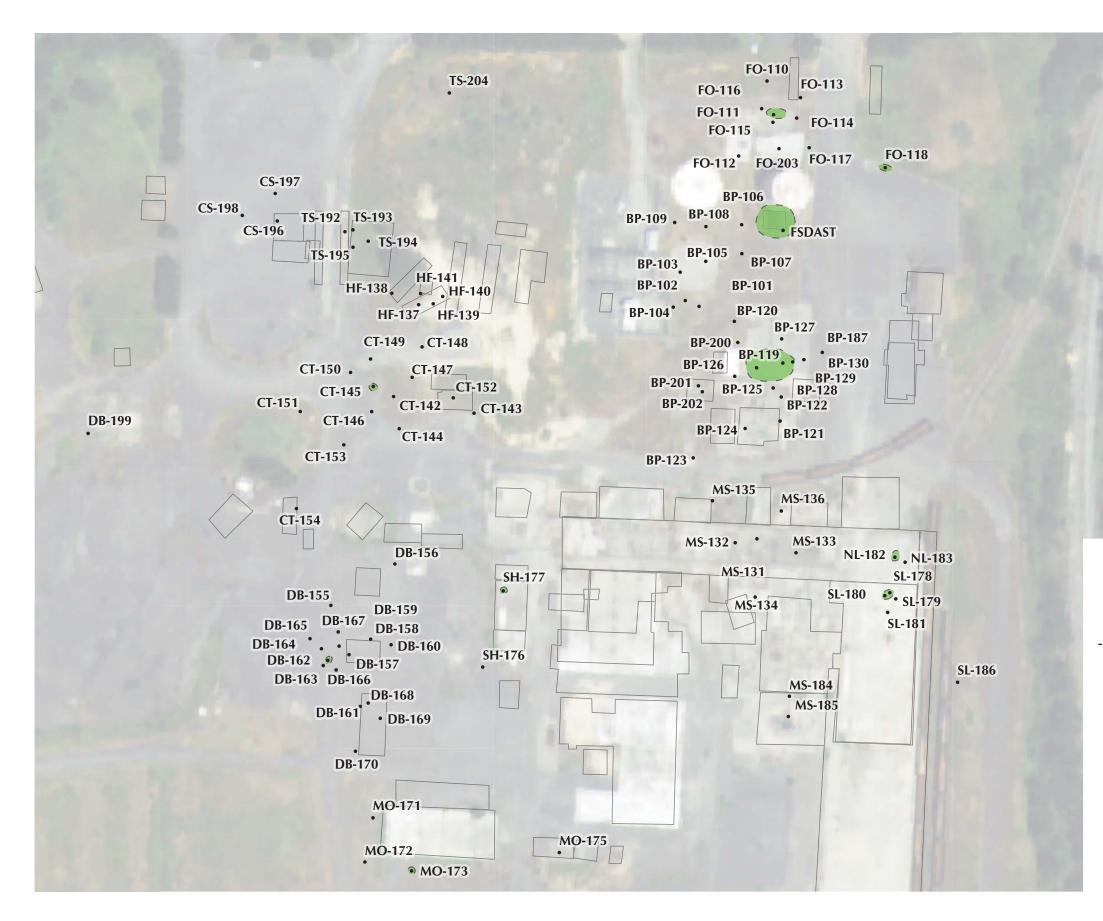


## EXPLORATION LOCATIONS (BOILER AND POWERHOUSE)

JULY 2018

JOB NO. 5764-1195

FIG. 10

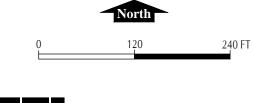






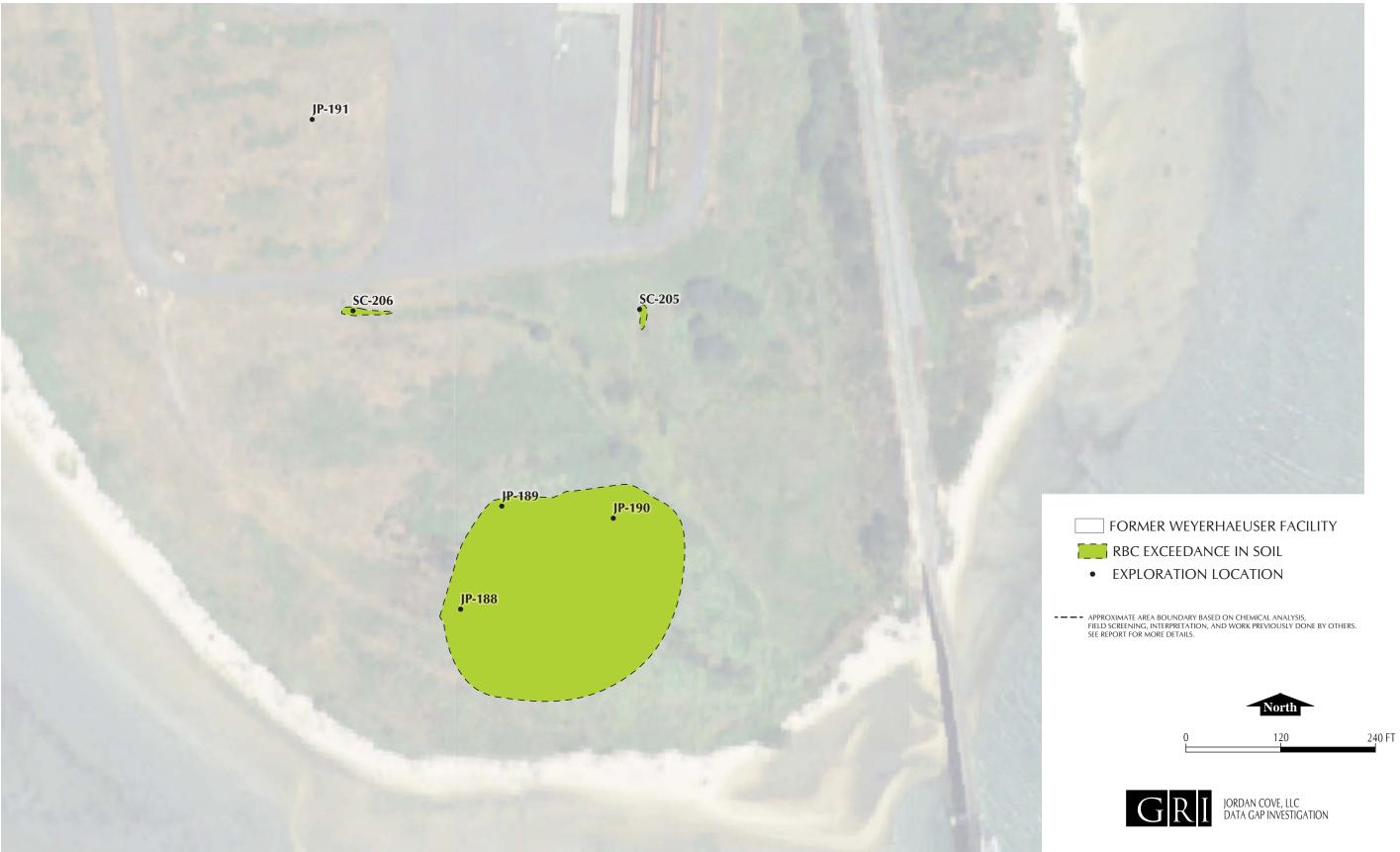
## FORMER WEYERHAEUSER FACILITY 📕 RBC EXCEEDANCE IN SOIL EXPLORATION LOCATION

- 
 - 
 - APPROXIMATE BOUNDARY BASED ON CHEMICAL ANALYSIS, FIELD SCREENING, INTERPRETATION, AND WORK PREVIOUSLY DONE BY OTHERS. SEE REPORT FOR MORE DETAILS.





# **RBC EXCEEDANCE IN SOIL** NORTH AREA



# RBC EXCEEDANCE IN SOIL South Area

JOB NO. 5764-1195

# APPENDIX A Boring Logs

#### BORING AND TEST PIT LOG LEGEND

#### SOIL SYMBOLS Symbol

| <u>x 1/7</u> . x |
|------------------|
| ·····            |
|                  |
|                  |
| لايت.<br>[م]ما   |
| (0) e            |
| 00               |
|                  |
|                  |
|                  |
|                  |
|                  |
|                  |
|                  |
|                  |
|                  |
|                  |
|                  |
|                  |
| 2                |
| [7:7]            |
| <u>/:/:/</u>     |
|                  |
|                  |
|                  |
| EDRO             |

LANDSCAPE MATERIALS

**Typical Description** 

FILL

GRAVEL; clean to some silt, clay, and sand Sandy GRAVEL; clean to some silt and clay Silty GRAVEL; up to some clay and sand Clayey GRAVEL; up to some silt and sand SAND; clean to some silt, clay, and gravel Gravelly SAND; clean to some silt and clay Silty SAND; up to some clay and gravel Clayey SAND; up to some silt and gravel SILT; up to some clay, sand, and gravel Gravelly SILT; up to some clay and sand Sandy SILT; up to some clay and gravel Clayey SILT; up to some sand and gravel CLAY; up to some silt, sand, and gravel Gravelly CLAY; up to some silt and sand Sandy CLAY; up to some silt and gravel Silty CLAY; up to some sand and gravel PEAT

#### В **CK SYMBOLS**

| Symbol            | Typical Description |
|-------------------|---------------------|
| +++<br>+++<br>+++ | BASALT              |
|                   | MUDSTONE            |
|                   | SILTSTONE           |
| ••=••             | SANDSTONE           |
|                   |                     |

#### SURFACE MATERIAL SYMBOLS Sy

| ymbol | Typical Description               |
|-------|-----------------------------------|
|       | Asphalt concrete PAVEMENT         |
|       | Portland cement concrete PAVEMENT |
| 0°    | Crushed rock BASE COURSE          |

#### SAMPLER SYMBOLS

| Symbol         | Sampler Description   |  |  |  |  |  |  |
|----------------|---|--|--|--|--|--|--|
| Ī              | 2.0-in. O.D. split-spoon sampler and Standard Penetration Test with recovery (ASTM D1586) |  |  |  |  |  |  |
| I              | Shelby tube sampler with recovery (ASTM D1587)  |  |  |  |  |  |  |
| $\blacksquare$ | 3.0-in. O.D. split-spoon sampler with recovery (ASTM D3550)                               |  |  |  |  |  |  |
| X              | Grab Sample   |  |  |  |  |  |  |
|                | Rock core sample interval   |  |  |  |  |  |  |
|                | Sonic core sample interval  |  |  |  |  |  |  |
|                | Geoprobe sample interval  |  |  |  |  |  |  |

#### INSTALLATION SYMBOLS

| Symbol   | Symbol Description  |  |  |  |  |
|----------|---|--|--|--|--|
|          | Flush-mount monument set in concrete                            |  |  |  |  |
|          | Concrete, well casing shown where applicable                    |  |  |  |  |
|          | Bentonite seal, well casing shown where applicable              |  |  |  |  |
|          | Filter pack, machine-slotted well casing shown where applicable |  |  |  |  |
|          | Grout, vibrating-wire transducer cable shown where applicable   |  |  |  |  |
| P        | Vibrating-wire pressure transducer                              |  |  |  |  |
|          | 1-indiameter solid PVC  |  |  |  |  |
|          | 1-indiameter hand-slotted PVC                                   |  |  |  |  |
|          | Grout, inclinometer casing shown where applicable               |  |  |  |  |
| FIELD ME | FIELD MEASUREMENTS  |  |  |  |  |

| Symbol | Typical Description                                 |
|--------|---|
| Ţ      | Groundwater level during drilling and date measured |
| Ţ      | Groundwater level after drilling and date measured  |
|        | Rock core recovery (%)                              |
|        | Rock quality designation (RQD, %)                   |

| DEPTH, FT                 | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                   |
|---------------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
|                           |             | SAND, trace to some gravel, trace silt, gray-brown,<br>fine to coarse grained, contains trace organics<br>gravel absent, brown, fine to medium grained<br>below 1.5 ft |                            |          | Run 1                       |              | └──1.8 ft (1/29/2018)<br>Run 1 recovery 36 in.                     |
| 5                         |             | gray below 6.75 ft   |                            | 0        | Run 2<br>BP-101-7           |              | Run 2 recovery 60 in.<br>Slight sheen between depths of 7 to 12 ft |
| 10—<br>—<br>—<br>—        |             |  |                            | 0        | Run 3                       |              | Run 3 recovery 60 in.  |
| 15—<br>—<br>—<br>—<br>—   |             | fine grained below 15 ft   |                            | 0        | Run 4                       |              | Run 4 recovery 60 in.  |
| 20—<br>—<br>—<br>—<br>25— |             |  |                            | 0        | Run 5                       |              | Run 5 recovery 56 in.  |
| 20<br>                    |             | light gray below 28.5 ft   |                            | 0        | Run 6<br>BP-101-30          |              | Run 6 recovery 60 in.  |
| 35                        |             | (1/29/2018)  | - 35.0                     |          | Run 7                       |              | Run 7 recovery 60 in.  |
| _<br>_<br>                |             |  |                            |          | ,                           | 0            | 1.0  |

| Logged By: C. Smerdon      | Corporation                                    |  |  |
|----------------------------|--|--|--|
| Date Started: 1/29/18      | Date Started: 1/29/18 Coordinates: 43.43561° N |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used                          |  |  |
| Equipment: Geoprob         | Weight:  |  |  |
| Hole Diameter: 3 in.       | Drop:  |  |  |
| Note: See Legend for Expla | Energy Ratio:                                  |  |  |





Reissued for Use

| ДЕРТН, FT                        | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                 | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|----------------------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
|                                  |             | SAND, light brown, fine to medium grained, contains gravel to a depth of 3 in. |                            |          | Run 1                       |              | ⊈2.2 ft (1/29/2018)<br>Run 1 recovery 32 in.                                      |
| 5—<br>—<br>—<br>—<br>—<br>—<br>— |             | gray below 8 ft  |                            | 2.1      | Run 2                       |              | Run 2 recovery 48 in.<br>Heavy sheen and slight odor between depths of 8 to 17 ft |
| 10—<br>—<br>—<br>—<br>—<br>15—   |             |  |                            |          | Run 3<br>BP-102-12          |              | Run 3 recovery 60 in.   |
|                                  |             |  | 20.0                       | 0        | Run 4                       |              | Run 4 recovery 60 in.   |
|                                  |             | (1/29/2018)  |                            |          |                             |              |   |
| -                                |             |  |                            |          |                             |              |   |
|                                  |             |  |                            |          |                             |              |   |
|                                  |             |  |                            |          |                             | D            | 1.0   |

| Logged By: C. Smerdon      | Corporation              |                        |
|----------------------------|--------------------------|------------------------|
| Date Started: 1/29/18      | Coordinates: 43.43563° N | -124.23975° W (WGS 84) |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                        |
| Equipment: Geoprob         | Weight:                  |                        |
| Hole Diameter: 3 in.       | Drop:                    |                        |
| Note: See Legend for Expla | Energy Ratio:            |                        |





| Logged By: C. Smerdon      | Drilled by: Stratus      | Corporation            |
|----------------------------|--------------------------|------------------------|
| Date Started: 1/29/18      | Coordinates: 43.43563° N | -124.23975° W (WGS 84) |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                        |
| Equipment: Geoprob         | Weight:                  |                        |
| Hole Diameter: 3 in.       | Drop:                    |                        |
| Note: See Legend for Expla | Energy Ratio:            |                        |

| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                         | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|---------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
|               |             | SAND, light brown, fine grained  |                            |          | Run 1                       |              | ⊻1.9 ft (1/30/2018)<br>Run 1 recovery 33 in. |
| 5             |             | dark gray/discolored below 5 ft<br>gray to gray-brown, discoloration absent below 8 ft |                            |          | Run 2                       |              | Run 2 recovery 54 in.                        |
| 10—<br>—<br>— |             | gray to dark gray/discolored below 12.5 ft   | 14.0                       | 0        | Run 3<br>BP-103-13          |              | Run 2 recovery 60 in.                        |
| 15—<br>—<br>— |             | SILT, gray   | 15.0                       |          | Run 4                       |              | Run 4 recovery 60 in.                        |
| 20            |             | (1/30/2018)  | 20.0                       |          |                             |              |  |
| 25—<br>—<br>— |             |  |                            |          |                             |              |  |
|               |             |  |                            |          |                             |              |  |
|               |             |  |                            |          |                             |              |  |
|               |             |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 1/30/18      | Coordinates: 43.43572° N | -124.23978° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





JOB NO. 5764-1195

FIG. 3A

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -  |             | SAND, trace to some gravel, trace silt, gray-brown,<br>fine to medium grained<br>gravel absent, light brown, fine grained below 1 ft |                            |          | Run 1                       |              | <sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup> |
| 5  |             | dark gray to black, contains woody organics<br>below 8 ft  |                            |          | Run 2                       |              | Run 2 recovery 42 in.  |
|  |             |  |                            | 0        | Run 3<br>BP-104-13          |              | Slight sheen between depths of 10 to 14 ft<br>Run 3 recovery 60 in.  |
|  |             |  | 20.0                       |          | Run 4<br>BP-104-20          |              | Run 4 recovery 60 in.  |
| 25   |             | (1/30/2018)  |                            |          |                             |              |  |
| -  |             |  |                            |          |                             |              |  |
|  |             |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE GDT 7/26/18 |             |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 1/30/18      | Coordinates: 43.4356° N | -124.23981° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | e 7822DT                | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





| <b>DEPTH</b> , FT | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|-------------------|--------------------|--|----------------------------|----------|-----------------------------|--------------|--|
|                   |                    | SAND, trace to some gravel, trace silt, gray-brown,<br>fine grained<br>brown, gravel absent below 0.5 ft |                            |          | Run 1                       |              | ⊈2.3 ft (1/30/2018)<br>Run 1 recovery 27 in.                             |
| 5—<br>            |                    | dark brown below 5 ft  |                            |          | 1                           | -            |  |
| _<br>_<br>10—     |                    | black below 8.5 ft   |                            | 0.6      | Run 2                       | -            | Run 2 recovery 52 in.<br>Moderate sheen between depths of 8.5 to 13.5 ft |
|                   |                    | gray below 12.5 ft<br>m  | - 13.5                     | 0.0      | Run 3                       |              | Run 3 recovery 60 in.  |
|                   |                    | SAND, gray, fine grained   | - 14.5                     |          |                             | -            |  |
| _<br><br>20—      |                    | (1/30/2018)  | - 20.0                     |          | Run 4                       |              | Run 4 recovery 60 in.  |
| -                 |                    |  |                            |          |                             |              |  |
| 25—<br>—<br>—     |                    |  |                            |          |                             |              |  |
| <br>30—           |                    |  |                            |          |                             |              |  |
|                   |                    |  |                            |          |                             |              |  |
| 35—<br>—<br>—     |                    |  |                            |          |                             |              |  |
|                   |                    |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 1/30/18      | Coordinates: 43.43576° N | -124.23966° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





```
JOB NO. 5764-1195
```

| ДЕРТН, FT                | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available    | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                   |
|--------------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
|                          |             | SAND, trace silt, brown, fine grained<br>light brown below 0.5 ft |                            |          | Run 1                       |              | <sup>I</sup> <sup>I</sup> Z2.5 ft (1/30/2018)6 in. |
| 5—<br>—<br>—<br>—<br>10— |             | gray below 8.5 ft   |                            | 0        | Run 2                       |              | Run 2 recovery 45 in.                              |
| <br><br>15—              |             | SAND, gray/   | 14.0<br>14.5               |          | Run 3<br>BP-106-13          |              | Run 3 recovery 60 in.                              |
| <br><br>20               |             | (1/30/2018)   | 20.0                       |          | Run 4                       |              | Run 4 recovery 60 in.                              |
| <br><br>                 |             |   |                            |          |                             |              |  |
|                          |             |   |                            |          |                             |              |  |
|                          |             |   |                            |          |                             |              |  |
|                          |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus (     | Drilled by: Stratus Corporation |  |  |
|----------------------------|---------------------------|---------------------------------|--|--|
| Date Started: 1/30/18      | Coordinates: 43.4359° N - | 124.2395° W (WGS 84)            |  |  |
| Drilling Method: Direct Pu | ush Probe                 | Hammer Type: Not Used           |  |  |
| Equipment: Geoprob         | e 7822DT                  | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                     |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:             |                                 |  |  |





| DEPTH, FT               | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|-------------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| <br><br>5               |             | SAND, trace to some silt and gravel, brown, fine<br>grained<br>brown to black, gravel absent, contains wood<br>debris and organics below 1 ft<br>light brown, wood debris and organics absent<br>below 5 ft |                            |          | Run 1                       |              | ⊻1.8 ft (1/30/2018)<br>Run 1 recovery 36 in. |
| -<br>-<br>-<br>10       |             | gray below 7.5 ft   |                            |          | Run 2                       |              | Run 2 reocvery 52 in.                        |
| 10<br>                  |             | SILT, dark gray   | · 13.0<br>· 14.0           |          | Run 3<br>BP-107-12          |              | Run 3 reocvery 60 in.                        |
| -<br>-<br>-<br>20       |             | light gray below 16 ft  | 20.0                       |          | Run 4                       |              | Run 4 recovery 60 in.                        |
| _<br>_<br>_<br>25—      |             | (1/30/2018)   |                            |          |                             |              |  |
|                         |             |   |                            |          |                             |              |  |
| 30—<br>—<br>—<br>—<br>— |             |   |                            |          |                             |              |  |
| 35—<br>—<br>—<br>—      |             |   |                            |          |                             |              |  |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 1/30/18      | Coordinates: 43.4358° N | -124.23949° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | e 7822DT                | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





Reissued for Use

| ДЕРТН, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                       |
|-----------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
|           |             | SAND, trace silt, brown to light brown, fine grained,<br>contains organics<br>light brown, organics absent below 0.5 ft |                            |          | Run 1                       |              | ⊈2.5 ft (1/30/2018)<br>Run 1 recovery 33 in                            |
|           |             | black below 8 ft  |                            | 0        | Run 2                       |              | Run 2 recovery 60 in.<br>Slight sheen between depths of 8.7 to 14.5 ft |
|           | ПП          | SILT, gray  | 14.5<br>15.0               |          | Run 3<br>BP-108-13          | 3            | Run 3 recovery 60 in.  |
|           |             | SAND, gray, fine grained (1/30/2018)  | 20.0                       |          | Run 4<br>BP-108-17          |              | Run 4 recovery 60 in.  |
|           |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon         |   |                       | Drilled by: Stratus Corporation |                        |  |
|-------------------------------|---|-----------------------|---------------------------------|------------------------|--|
| Date Started: 1/30/18 Coordin |   |                       | nates:43.43588° N               | -124.23967° W (WGS 84) |  |
|                               | Drilling Method: Direct Pu                  | Hammer Type: Not Used |                                 |                        |  |
|                               | Equipment: Geoprob                          | Weight:               |                                 |                        |  |
|                               | Hole Diameter: 3 in.                        | Drop:                 |                                 |                        |  |
|                               | Note: See Legend for Explanation of Symbols |                       |                                 | Energy Ratio:          |  |





ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -  |             | SAND, trace silt, brown, fine grained, contains<br>organics<br>light brown, organics absent below 0.5 ft |                            |          | Run 1                       |              | Run 1 recovery 36 in.<br>⊻2.8 ft (1/30/2018) |
| 5—<br>—<br>—                                       |             | gray below 8.5 ft  |                            |          | Run 2                       |              | Run 2 recovery 50 in.                        |
| 10—<br>—<br>—                                      |             | (1/30/2018)  | - 10.0                     |          |                             |              |  |
|  |             |  |                            |          |                             |              |  |
| 20   |             |  |                            |          |                             |              |  |
| <br>25   |             |  |                            |          |                             |              |  |
| MPLATE.GDT 7/26/18                                 |             |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |  |
| - ENVIRONMENTALE                                   |             |  |                            |          |                             | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|--|
| Date Started: 1/30/18      | Coordinates: 43.43589° N | -124.23982° W (WGS 84)          |  |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                         |  |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |  |

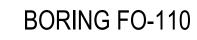




| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available            | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -  |             | SAND, trace to some silt, brown, fine grained<br>light brown below 0.5 ft |                            |          | Run 1                       |              | Run 1 recovery 36 in.<br>⊻2.8 ft (1/30/2018) |
| 5-   |             | gray-brown, grades to gray with depth below 7 ft                          |                            |          | Run 2                       |              | Run 2 recovery 51 in.                        |
| 10-<br>-<br>-<br>-<br>-<br>15-                     |             | _SILT, graySAND, gray, fine grained                                       | 13.5<br>14.2<br>15.0       |          | Run 3                       |              | Run 3 recovery 60 in.                        |
|  | -           | (1/30/2018)   | 10.0                       |          |                             |              |  |
|  | -           |   |                            |          |                             |              |  |
| -  | -           |   |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 | -           |   |                            |          |                             |              |  |
| ENVIRONMENTAL BORI                                 | -           |   |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus       | Drilled by: Stratus Corporation |  |  |  |
|----------------------------|---------------------------|---------------------------------|--|--|--|
| Date Started: 1/30/18      | Coordinates: 43.4364° N - | 124.23941° W (WGS 84)           |  |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used     |                                 |  |  |  |
| Equipment: Geoprob         | Weight:                   |                                 |  |  |  |
| Hole Diameter: 3 in.       | Drop:                     |                                 |  |  |  |
| Note: See Legend for Expla | anation of Symbols        | Energy Ratio:                   |  |  |  |





| DEPTH, FT  | GRAPHIC LOG     | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|--|-----------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -  |                 | SAND, some gravel, trace silt, brown to gray, fine to medium grainedgravel absent, light brown, fine grained below 3 ft |                            |          | Run 1                       |              | Run 1 recovery 35 in.<br>⊻3.5 ft (1/30/2018)                                |
| 5-<br>-<br>-<br>-<br>10-                           |                 | gray-brown, contains wood debris below 8 ft   |                            | 32.5     | Run 2<br>FO-111-8           |              | Run 2 recovery 48 in.<br>Slight sheen and odor between depths of 8 to 10 ft |
| -<br>-<br>-<br>15-<br>-                            | -<br>-<br>-<br> | SILT, gray SAND, gray, fine grained   | 14.0<br>15.0               |          | Run 3                       | -            | Run 3 recovery 60 in.   |
| -<br>-<br>20-<br>-<br>-                            |                 | (1/30/2018)   | 20.0                       |          | Run 4                       |              | Run 4 recovery 60 in.   |
| -<br>25-<br>-<br>81/92//                           | -               |   |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 | -               |   |                            |          |                             |              |   |
| - 35   | -               |   |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|--|
| Date Started: 1/30/18      | Coordinates: 43.43628° N | -124.23937° W (WGS 84)          |  |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |  |





| ДЕРТН, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -  |             | SAND, light brown, fine grained                                 |                            |          | Run 1                       |              | ⊻2.4 ft (1/30/2018)<br>Run 1 recovery 32 in. |
| 5—   |             | grades to gray-brown, contains organics below<br>7 ft           |                            |          | Run 2<br>FO-112-9           |              | Run 2 recovery 60 in.                        |
| 10—<br>—<br>—<br>—                                 | ]]]         | dark gray below 10 ft<br>SILT, gray<br>SAND, gray, fine grained | 13.0                       |          | Run 3                       |              | Run 3 recovery 60 in.                        |
| 15—<br>—<br>—<br>—                                 |             | (1/30/2018)   | 15.0                       |          |                             |              |  |
| 20—  |             |   |                            |          |                             |              |  |
| 25   |             |   |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |          |                             |              |  |
| NMENTAL BORING GRI                                 |             |   |                            |          |                             |              |  |
|  |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 1/30/18      | Coordinates: 43.43613° N | -124.23953° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | anation of Symbols       | Energy Ratio:                   |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -<br>-<br>-<br>5-                                  |             | Asphalt concrete PAVEMENT (11 in.)<br>SAND, trace to some gravel, trace silt, brown, fine to<br>medium grained<br>gravel absent, light brown, fine grained below 3 ft | 0.9                        |          | Run 1                       |              | Run 1 recovery 36 in.<br>⊈3.5 ft (1/30/2018) |
|  |             | light gray-brown below 7.5 ft<br>contains wood debris at 8 ft   |                            |          | Run 2<br>FO-113-8           | 3            | Run 2 recovery 55 in.                        |
|  |             | grades to silty material below 12.5 ft<br>SILT, gray<br>SAND, dark gray, fine grained   | 13.5                       |          | Run 3                       |              | Run 3 recovery 60 in.                        |
|  | -           | (1/30/2018)   | 15.0                       |          |                             |              |  |
| 25   | -           |   |                            |          |                             |              |  |
| -  | -           |   |                            |          |                             |              |  |
|  | -           |   |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE GDT 7/26/18 | -           |   |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon         |                            |                       | Drilled by: Stratus Corporation |                        |  |  |
|-------------------------------|----------------------------|-----------------------|---------------------------------|------------------------|--|--|
| Date Started: 1/30/18 Coordin |                            |                       | nates:43.43634° N               | -124.23925° W (WGS 84) |  |  |
|                               | Drilling Method: Direct Pu | Hammer Type: Not Used |                                 |                        |  |  |
|                               | Equipment: Geoprob         | Weight:               |                                 |                        |  |  |
|                               | Hole Diameter: 3 in.       | Drop:                 |                                 |                        |  |  |
|                               | Note: See Legend for Expla | Energy Ratio:         |                                 |                        |  |  |





|  | UEPIH, FI               | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                       |
|--|-------------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
|  |                         |             | SAND, trace to some gravel, trace silt, brown, fine to medium grained<br>gravel absent, light brown, fine grained below<br>3.5 ft |                            |          | Run 1                       |              | Run 1 recovery 32 in.<br>⊻3.4 ft (1/30/2018)                           |
|  |                         |             | gray-brown below 9 ft<br>contains wood debris at 9.2 ft   |                            |          | Run 2                       |              | Run 2 recovery 44 in.<br>Slight sheen between depths of 9.2 to 12.5 ft |
|  |                         |             | SILT, some fine-grained sand, gray<br>(1/30/2018)   | 14.0<br>15.0               |          | Run 3<br>FO-114-13          |              | Run 3 recovery 60 in.  |
|  | <br>20<br>              |             |   |                            |          |                             |              |  |
|  | _<br>25—<br>_<br>_<br>_ |             |   |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 | 30                      |             |   |                            |          |                             |              |  |
| ENVIRONMENTAL BORING                               | 35—<br>—<br>—<br>_<br>  |             |   |                            |          |                             | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 1/30/18      | Coordinates: 43.43627° N | -124.23926° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                       |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -  |             | Asphalt concrete PAVEMENT (12 in.)                             | 1.0                        |          | Run 1                       |              | ⊊Run 1 recovery 32 in.<br>⊊3.1 ft (1/30/2018)          |
| 5—<br>5—   |             | grades to gray-brown below 5 ft                                |                            |          | Run 2                       |              | Run 2 recovery 52 in.                                  |
|  |             | gray below 8.5 ft<br>dark gray below 10 ft                     |                            | 8.1      |                             |              | Slight sheen and odor between depths of 8.5 to 17.5 ft |
|  |             | Sandy SILT, gray, fine-grained sand                            | - 13.5<br>- 14.5           | 6.1      | Run 3                       |              | Run 3 recovery 60 in.                                  |
|  |             |  | 20.0                       | 3.7      | Run 4                       |              | Run 4 recovery 60 in.                                  |
| -  |             | (1/30/2018)  |                            |          |                             |              |  |
| 25-<br>-<br>81/9 -                                 |             |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |  |
| BORING GRI DATA<br>                                |             |  |                            |          |                             |              |  |
| – – – – – – – – – – – – – – – – – – –              |             |  |                            |          |                             | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Corporation            |
|----------------------------|--------------------------|------------------------|
| Date Started: 1/30/18      | Coordinates: 43.43625° N | -124.23937° W (WGS 84) |
| Drilling Method: Direct Pu | ish Probe                | Hammer Type: Not Used  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                |
| Hole Diameter: 3 in.       | Drop:                    |                        |
| Note: See Legend for Expla | anation of Symbols       | Energy Ratio:          |





Reissued for Use

| <b>DEPTH</b> , FT  | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                              | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                |
|--------------------|--------------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -                  |                    | SAND, some gravel, trace silt, brown, fine grained<br>gravel absent, light brown below 1 ft |                            |          | Run 1                       |              | Run 1 recovery 37 in.<br>⊻3.6 ft (1/31/2018)    |
| 5—                 |                    | grades to gray-brown below 7 ft<br>gray below 9 ft  |                            |          | Run 2                       |              | Run 2 recovery 48 in.                           |
| 10—<br>—<br>—<br>— |                    | SILT, some fine-grained sand, gray, contains  | - 14.0                     | 1.9      | Run 3<br>FO-116-14          |              | Moderate odor at 10 ft<br>Run 3 recovery 60 in. |
| 15—<br>—<br>—<br>— |                    | organics<br>(1/31/2018)   | 15.0                       | 1.5      | PO-110-14                   |              |   |
| 20                 |                    |   |                            |          |                             |              |   |
| 25—<br>—<br>—<br>— |                    |   |                            |          |                             |              |   |
|                    |                    |   |                            |          |                             |              |   |
| 35—<br>            |                    |   |                            |          |                             |              |   |
| 40                 |                    |   |                            |          |                             | 0            | 1.0   |

|                              | Logged By: C. Smerdon      |            | Drilled by: Stratus C | orporation            |
|------------------------------|----------------------------|------------|-----------------------|-----------------------|
| Date Started: 1/31/18 Coordi |                            |            | nates:43.4363° N -1   | 24.23943° W (WGS 84)  |
|                              | Drilling Method: Direct Pu | ush Probe  | Э                     | Hammer Type: Not Used |
|                              | Equipment: Geoprob         | e 7822D    | Т                     | Weight:               |
|                              | Hole Diameter: 3 in.       |            |                       | Drop:                 |
|                              | Note: See Legend for Expla | anation of | f Symbols             | Energy Ratio:         |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -  |             | Asphalt concrete PAVEMENT (4 in.)/<br>SAND, some gravel, trace to some silt, dark brown,<br>fine to medium grained<br>gravel absent, light brown, fine grained below 1 ft | 0.3                        |          | Run 1                       |              | Run 1 recovery 37 in.<br>⊻3.1 ft (1/31/2018) |
| 5  |             | light gray below 8 ft   |                            | 0.7      | Run 2                       |              | Run 2 recovery 49 in.                        |
| 10—<br>—<br>—<br>—                                 |             | some silt, gray below 13 ft<br>up to trace silt below 14 ft   |                            | 0        | Run 3<br>FO-117-13          |              | Run 3 recovery 60 in.                        |
| 15—<br>—<br>—<br>—                                 |             | (1/31/2018)   | 15.0                       | 0        |                             |              |  |
| 20   |             |   |                            |          |                             |              |  |
| 25—<br>—<br>                                       |             |   |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |          |                             |              |  |
| XONMENTAL BORING GI                                |             |   |                            |          |                             |              |  |
|  |             |   |                            |          | (                           | )            | 1.0  |

|                              | Logged By: C. Smerdon      |            | Drilled by: Stratus | Corporation           |
|------------------------------|----------------------------|------------|---------------------|-----------------------|
| Date Started: 1/31/18 Coordi |                            |            | nates:43.43617° N   | -124.2392° W (WGS 84) |
|                              | Drilling Method: Direct Pu | ush Probe  | 9                   | Hammer Type: Not Used |
|                              | Equipment: Geoprob         | e 7822D    | Т                   | Weight:               |
|                              | Hole Diameter: 3 in.       |            |                     | Drop:                 |
|                              | Note: See Legend for Expla | anation of | f Symbols           | Energy Ratio:         |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -  |             | SAND, trace silt and gravel, brown, fine to medium<br>grained<br>gravel absent, light brown below 0.5 ft<br>gray-brown, contains organics below 4 ft |                            |          | Run 1                       |              | ⊈2.4 ft (1/31/2018)<br>Run 1 recovery 32 in. |
| 5  |             | organics absent below 7 ft<br>gray below 8 ft  |                            | 0        | FO-118-4                    |              | Run 2 recovery 60 in.                        |
| <br>10<br>   |             |  | 40.5                       |          |                             |              |  |
| -<br>-<br>15                                       |             | Sandy SILT, gray, fine-grained sand, sandier<br>material in graded interbeds /<br>SAND, light gray, fine grained<br>(1/31/2018)                      | 12.5<br>13.5<br>15.0       | 0        | Run 3                       |              | Run 3 recovery 60 in.                        |
|  |             |  |                            |          |                             |              |  |
| -<br>-<br>-<br>25-                                 |             |  |                            |          |                             |              |  |
| -  |             |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |  |
| - NTAL BORING GRI I<br>- 32<br>                    |             |  |                            |          |                             |              |  |
| – ENVIRONMEI<br>– 40–                              |             |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Corporation            |
|----------------------------|--------------------------|------------------------|
| Date Started: 1/31/18      | Coordinates: 43.43611° N | -124.23883° W (WGS 84) |
| Drilling Method: Direct Pu | ush Probe                | Hammer Type: Not Used  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                |
| Hole Diameter: 3 in.       |                          | Drop:                  |
| Note: See Legend for Expla | anation of Symbols       | Energy Ratio:          |





| DEPTH, FT          | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|--------------------|--------------------|---|----------------------------|----------|-----------------------------|--------------|---|
| _                  |                    | Asphalt concrete PAVEMENT (3 in.)   | 0.2                        |          |                             |              |   |
| -                  |                    | SAND, light brown, fine grained   |                            |          | Run 1                       |              | Run 1 recovery 30 in.   |
| 5—<br>—            |                    | trace silt below 5 ft   |                            |          |                             | -            |   |
| -                  |                    | dark brown to gray below 8 ft   |                            | 70<br>58 | Run 2<br>BP-119-8           |              | Run 2 recovery 49 in.<br>Heavy odor between depths of 8 to 20 ft            |
| 10—<br>—<br>—      |                    |   |                            |          |                             | -            | Heavy sheen between depths of 11 to 24 ft                                   |
| _<br>_<br>15—      |                    |   |                            | 55       | Run 3                       |              | Run 3 recovery 60 in.   |
| 10-                |                    |   |                            | 33       |                             |              |   |
| _                  |                    | gray below 17 ft  |                            |          | Run 4<br>BP-119-17          |              | Run 4 recovery 60 in.   |
| 20—<br>—           |                    |   |                            | 30.2     |                             | -            | Moderate odor between depths of 20 to 28 ft                                 |
| _                  |                    |   |                            |          | Run 5                       |              | Run 5 recovery 60 in.   |
| <br>25—            |                    |   |                            |          |                             |              | Moderate sheen between depths of 24 to 26 ft                                |
| 25-                |                    |   |                            | 28       |                             |              | Slight sheen between depths of 26 to 29 ft                                  |
| -                  |                    |   |                            |          | Run 6                       |              | Run 6 recovery 60 in.<br>Slight odor between depths of 28 to 43.5 ft        |
| 30—                |                    |   |                            | 0.7      |                             |              | Slight staining or sheen on acetate sleeves between depths of 29 to 43.5 ft |
| -                  |                    | light gray below 33 ft  |                            | 0        | Run 7<br>BP-119-33          |              | Run 7 recovery 60 in.   |
| 35—<br>—<br>—      |                    |   |                            |          | Run 8                       |              | Run 8 recovery 60 in.   |
| _                  |                    |   |                            |          |                             |              |   |
| 40                 | <u>e segui</u> d   | (CONTINUED NEXT PAGE)   | 1                          | 1        | 1                           | 0            | 1.0   |
| Logged<br>Date Sta |                    | Smerdon         Drilled by: Stratus Corporation           1/31/18         Coordinates:43.4354° N         -124.2394° W (WGS) | 5 84)                      |          |                             |              |   |
| Drilling I         | Metho<br>ipmer     | d: Direct Push Probe Hammer Type: N<br>ht: Geoprobe 7822DT Weight:  |                            |          | (                           |              | <b>R</b> BORING BP-119  |

JOB NO. 5764-1195

JULY 2018

FIG. 19A

| DEPTH, FT               | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|-------------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -<br>-<br>-<br>45-<br>- |             | SAND, trace silt, light gray, fine grained<br>contains shell fragments at 43.5 ft<br>(1/31/2018)<br>Depth to groundwater not measured due to caving | - 45.0                     |          | Run 9                       |              | Slight odor and staining or sheen on acetate sleeves to<br>43.5 ft<br>Run 9 recovery 60 in. |
| -<br>50-<br>-<br>-      | -           |   |                            |          |                             |              |   |
|                         | -           |   |                            |          |                             |              |   |
| 60<br><br><br>65<br>    | -           |   |                            |          |                             |              |   |
|                         | -           |   |                            |          |                             |              |   |
|                         |             |   |                            |          |                             |              |   |





| <b>DEPTH</b> , FT        | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|--------------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
|                          |             | SAND, some gravel, trace silt, brown with scattered<br>red mottling, fine to medium grained<br>gravel absent, light brown, fine grained below 1 ft |                            |          | Run 1                       |              | Run 1 recovery 34 in.<br>⊻3.2 ft (2/1/2018)                                  |
| 5—<br>—<br>—<br>—<br>10— |             | light gray to light brown below 7 ft<br>dark gray below 8 ft   |                            | 1<br>2.9 | Run 2<br>BP-120-8           |              | Run 2 recovery 45 in.<br>Moderate sheen and odor between depths of 8 to 9 ft |
|                          |             | trace to some silt below 14 ft<br>up to trace silt, gray-brown below 15 ft   |                            |          | BP-120-11 X                 |              | Run 3 recovery 60 in.  |
|                          |             | (2/1/2018)   | - 20.0                     |          | Run 4                       |              | Run 4 recovery 35 in.  |
| <br><br>25               | -           |  |                            |          |                             |              |  |
| <br><br>30—              | -           |  |                            |          |                             |              |  |
|                          |             |  |                            |          |                             |              |  |
| <br>                     | -           |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Corporation            |
|----------------------------|--------------------------|------------------------|
| Date Started: 2/1/18       | Coordinates: 43.43556° N | -124.23951° W (WGS 84) |
| Drilling Method: Direct Pu | ish Probe                | Hammer Type: Not Used  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                |
| Hole Diameter: 3 in.       |                          | Drop:                  |
| Note: See Legend for Expla | anation of Symbols       | Energy Ratio:          |



JULY 2018



|                                       | , , , , , , , , , , , , , , , , , , , |  |                            |          |                             |   |   |
|---------------------------------------|---------------------------------------|--|----------------------------|----------|-----------------------------|---|---|
| DEPTH, FT                             | <b>GRAPHIC LOG</b>                    | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT |   | COMMENTS AND<br>ADDITIONAL TESTS                      |
|                                       |                                       | SAND, trace silt and gravel, light brown to dark<br>brown, fine to coarse grained<br>gravel absent, light brown, fine grained below<br>1.5 ft        |                            |          | Run 1                       |   | Run 1 recovery 32 in.<br>⊻3.8 ft (2/1/2018)           |
|                                       |                                       | contains organics at 9 ft, light gray-brown below<br>9 ft  |                            | 3.3      | Run 2<br>BP-121-9           | X | Run 2 recovery 50 in.<br>Possible slight odor at 9 ft |
|                                       |                                       |  |                            |          | Run 3                       |   | Run 3 recovery 60 in.                                 |
| <br><br>                              |                                       |  |                            |          | Run 4                       |   | Run 4 recovery 40 in.                                 |
| 25-                                   |                                       | trace to some silt at 23 ft  |                            |          | Run 5                       |   | Run 5 recovery 45 in.                                 |
|                                       |                                       | (2/1/2018)   | - 30.0                     |          | Run 6                       |   | Run 6 recovery 43 in.                                 |
|                                       |                                       |  |                            |          |                             |   |   |
| 40-                                   | Bv: C                                 | Smerdon Drilled by: Stratus Corporation  |                            |          |                             | 0 | 1.0   |
| Date Sta<br>Drilling<br>Equ<br>Hole D | arted: 2<br>Metho<br>uipmer<br>iamete | Coordinates:43.43522° N         -124.23928° W (W           d: Direct Push Probe         Hammer Type: N           it: Geoprobe 7822DT         Weight: |                            |          | (                           |   | BORING BP-121   |

| Docu | ment No: | J1-680-RGL-GRI-00001-00  |
|------|----------|--------------------------|
| 2000 |          | )! 000 1102 011 00001 00 |

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18



JOB NO. 5764-1195

JULY 2018

Revision: 1

Reissued for Use

FIG. 21A

| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                 |
|---------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -             |             | SAND, trace to some silt and gravel, brown, fine to<br>medium grained<br>gravel absent, up to trace silt, light brown mottled<br>brown, fine grained, contains organics |                            |          | Run 1                       |              | Run 1 recovery 22 in.<br>⊻3.7 ft (2/1/2018)                      |
| 5             |             | contains metal fragments below 5 ft<br>metal fragments absent below 7 ft<br>light gray, organics absent below 8 ft  |                            | 1        | Run 2<br>BP-122-7           | X            | Slight odor between depths of 6 to 7 ft<br>Run 2 recovery 48 in. |
| 10—<br>—<br>— |             | gray below 10 ft  |                            |          | Run 3                       |              | Run 3 recovery 60 in.  |
| <br>15<br>    |             | (2/1/2018)  | • 15.0                     |          |                             |              |  |
| <br>20—<br>   |             |   |                            |          |                             |              |  |
| <br>25        |             |   |                            |          |                             |              |  |
|               |             |   |                            |          |                             |              |  |
|               |             |   |                            |          |                             |              |  |
| 40            |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation          |  |  |
|----------------------------|--------------------------|--|--|--|
| Date Started: 2/1/18       | Coordinates: 43.43531° N | nates:43.43531° N -124.23928° W (WGS 84) |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |  |  |  |
| Equipment: Geoprob         | Weight:                  |  |  |  |
| Hole Diameter: 3 in.       | Drop:                    |  |  |  |
| Note: See Legend for Expla | Energy Ratio:            |  |  |  |



JULY 2018



| GRAPHIC LOG         | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT                  | PID, PPM  | SAMPLE NO.<br>AND DEPTH, FT   | INSTALLATION  | COMMENTS AND<br>ADDITIONAL TESTS   |
|---------------------|--|---|---|---|---|--|
|                     | SAND, trace silt, light brown, fine grained                    |   |   | Run 1   |   | Run 1 recovery 28 in.<br>⊻3.8 ft (2/1/2018)  |
|                     | contains woody debris at 8.5 ft, gray below 8.5 ft             |   | 3.2   | Run 2<br>BP-123-8   |   | Run 2 recovery 47 in.  |
|                     |  |   | 0   | Run 3   |   | Run 3 recovery 60 in.  |
| <u>e la freidae</u> | (2/1/2018)   | - 15.0                                      |   | -   |   |  |
|                     |  |   |   |   |   |  |
|                     |  |   |   |   |   |  |
|                     |  |   |   |   |   |  |
|                     |  |   |   |   |   |  |
|                     | GRAPHIC LOG  | SAND, trace silt, light brown, fine grained | SAND, trace silt, light brown, fine grainedcontains woody debris at 8.5 ft, gray below 8.5 ft | SAND, trace silt, light brown, fine grainedcontains woody debris at 8.5 ft, gray below 8.5 ft 3.2 | SAND, trace silt, light brown, fine grained<br>Run 1<br>contains woody debris at 8.5 ft, gray below 8.5 ft<br>Run 2<br>BP-123-8<br>Run 3<br>Run 3 | SAND, trace silt, light brown, fine grained<br>Run 1<br>contains woody debris at 8.5 ft, gray below 8.5 ft<br>BP-123-8<br>Run 2<br>3.2<br>BP-123-8<br>Run 3<br>Run 3 |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation          |  |  |
|----------------------------|--------------------------|--|--|--|
| Date Started: 2/1/18       | Coordinates: 43.43508° N | nates:43.43508° N -124.23968° W (WGS 84) |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |  |  |  |
| Equipment: Geoprob         | Weight:                  |  |  |  |
| Hole Diameter: 3 in.       | Drop:                    |  |  |  |
| Note: See Legend for Expla | Energy Ratio:            |  |  |  |





```
JOB NO. 5764-1195
```

| DEPTH, FT   | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|-------------|--------------------|---|----------------------------|----------|-----------------------------|--------------|---|
| <br><br>5   |                    | SAND, some gravel, trace silt, brown to red-brown,<br>fine grained, contains organics<br>gravel absent, light brown to brown mottled dark<br>brown below 0.5 ft |                            |          | Run 1                       |              | Run 1 recovery 34 in.<br>⊻3.7 ft (2/1/2018) |
| <br><br>10— |                    | gray below 8.5 ft   |                            | 0.6      | Run 2                       |              | Run 2 recovery 49 in.                       |
| <br><br>15  |                    | dark gray below 13 ft<br>SILT, trace to some fine-grained sand, dark gray,<br>contains organics<br>(2/1/2018)   | - 14.0<br>- 15.0           |          | Run 3                       |              | Run 3 recovery 60 in.                       |
| <br><br>    |                    |   |                            |          |                             |              |   |
| <br>25      |                    |   |                            |          |                             |              |   |
| <br>30      |                    |   |                            |          |                             |              |   |
|             |                    |   |                            |          |                             |              |   |
|             |                    |   |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/1/18       | Coordinates: 43.43519° N | -124.23944° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS              |
|-----------|--------------------|--|----------------------------|----------|-----------------------------|--------------|---|
|           |                    | Asphalt concrete PAVEMENT (4 in.)/<br>SAND, light brown mottled dark brown, fine grained,<br>contains organics | 0.3                        |          | Run 1                       |              | Run 1 recovery 24 in.<br>⊻3.6 ft (2/1/2018)   |
|           |                    | gray below 8.5 ft  |                            |          | Run 2                       |              | Run 2 recovery 45 in.                         |
|           |                    | Sandy SILT, gray, fine-grained sand  | 14.0                       | 0        | Run 3<br>BP-125-13          |              | Run 3 recovery 60 in.<br>Slight odor at 14 ft |
|           |                    | Silty SAND, gray, fine grained   | 20.0                       |          | Run 4                       |              | Run 4 recovery 42 in.                         |
|           |                    | (2/1/2018)   |                            |          |                             |              |   |
|           |                    |  |                            |          |                             |              |   |
|           |                    |  |                            |          |                             |              |   |
|           |                    |  |                            |          |                             | )            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/1/18       | Coordinates: 43.43534° N | -124.23932° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

| DEPTH, FT     | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                   |
|---------------|--------------------|---|----------------------------|----------|-----------------------------|--------------|--|
|               |                    | Asphalt concrete PAVEMENT (3 in.)/<br>SAND, trace to some silt, light brown to dark brown,<br>fine grained, contains organics | 0.2                        |          | Run 1                       |              | Run 1 recovery 14 in.<br>⊻3.3 ft (2/1/2018)                        |
| 5—            |                    | up to trace silt, light brown, organics absent below<br>7 ft<br>dark gray-brown at 8.5 ft                                     |                            | 0.3      | BP-126-6 X                  |              | Slight sheen between depths of 5 and 6 ft<br>Run 2 recovery 51 in. |
| 10—<br>—<br>— |                    | gray below 10 ft  |                            |          | Run 3                       |              | Run 3 recovery 60 in.  |
|               |                    | dark gray, trace to some silt below 14 ft<br>(2/1/2018)   | 15.0                       | 0        |                             |              |  |
| 20            |                    |   |                            |          |                             |              |  |
| 25-           |                    |   |                            |          |                             |              |  |
|               |                    |   |                            |          |                             |              |  |
|               |                    |   |                            |          |                             |              |  |
|               |                    |   |                            |          | (                           | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/1/18       | Coordinates: 43.43537° N | -124.2395° W (WGS 84)           |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS              |
|-----------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
|           |             | Portland cement CONCRETE (5 in.) /                             | 0.4                        |          | Run 1                       |              | Run 1 recovery 27 in.                         |
| 5         |             | trace silt, gray to dark gray below 8.5 ft                     |                            | 0        | Run 2<br>BP-127-8           |              | Run 2 recovery 45 in.<br>Slight sheen at 9 ft |
|           |             | (2/1/2018)   | 15.0                       |          | Run 3<br>BP-127-13          |              | Run 3 recovery 60 in.                         |
| 20-       |             | Depth to groundwater not measured due to caving                |                            |          |                             |              |   |
| <br>25    |             |  |                            |          |                             |              |   |
|           |             |  |                            |          |                             |              |   |
| 35-       |             |  |                            |          |                             |              |   |
| 40        |             |  |                            |          |                             | )            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/1/18       | Coordinates: 43.43551° N | -124.23929° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|---------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -             |             | SAND, light brown, fine grained                                | 0.5                        |          | Run 1                       |              | Run 1 recovery 36 in.  |
| 5             | -           | 3-inthick lens of organics at 4 ft                             |                            | 0        |                             |              | ⊻3.8 ft (2/2/2018)   |
|               | -           | trace silt, black below 7.5 ft                                 |                            | 107      | Run 2<br>BP-128-9           |              | Run 2 recovery 45 in.<br>Moderate sheen and heavy odor between depths of 7.5 and 14 ft |
| -             | -           |  |                            | 11<br>0  | Run 3<br>BP-128-15          |              | Run 3 recovery 60 in.  |
| 15—<br>—<br>— | -           | (2/2/2018)   | 15.0                       |          |                             |              |  |
| 20—<br>       | -           |  |                            |          |                             |              |  |
| <br>25—       | -           |  |                            |          |                             |              |  |
|               | -           |  |                            |          |                             |              |  |
|               |             |  |                            |          |                             |              |  |
| 35—<br>—<br>— | -           |  |                            |          |                             |              |  |
| 40-           |             |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/2/18       | Coordinates: 43.43542° N | -124.23927° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT    | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|--------------|--------------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -            |                    | Asphalt concrete PAVEMENT (3 in.)/                             | 0.2                        |          | Run 1                       |              | Run 1 recovery 32 in.<br>⊻4.0 ft (2/2/2018)  |
| 5—<br>—<br>— |                    | dark brown below 6 ft  |                            | 1        | Run 2                       |              | Heavy odor at 6.5 ft<br>Run 2 recovery 45 in.  |
| <br>10—      |                    | dark gray below 9 ft   |                            | 140      | BP-129-8                    |              | Slight to moderate sheen between depths of 8 to 10 ft<br>Moderate to heavy sheen, moderate odor between depths<br>of 10 to 13.5 ft |
|              |                    | trace to some silt, gray below 13 ft                           |                            | 60       | Run 3<br>BP-129-14          |              | Run 3 recovery 60 in.  |
| 15—<br>      |                    | (2/2/2018)   | 15.0                       |          |                             |              |  |
| <br>20—      |                    |  |                            |          |                             |              |  |
| <br><br>25   |                    |  |                            |          |                             |              |  |
|              |                    |  |                            |          |                             |              |  |
| 30—<br>      |                    |  |                            |          |                             |              |  |
|              |                    |  |                            |          |                             |              |  |
|              |                    |  |                            |          |                             |              |  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/2/18       | Coordinates: 43.43543° N | -124.23923° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -  |             | SAND, trace to some silt, trace gravel, brown, fine to<br>medium grained<br>trace silt, light brown mottled brown, fine grained<br>below 0.5 ft<br>gravel lens at 4.5 ft |                            |          | Run 1                       |              | ⊻2.0 ft (2/2/2018)<br>Run 1 recovery 32 in. |
| 5—   |             | (2/2/2018)<br>Practical refusal at 5.5 ft  | 5.5                        |          | Run 2                       |              | Run 2 recovery 6 in.                        |
| 10—<br>—<br>—                                      |             |  |                            |          |                             |              |   |
| 15—<br>—<br>—                                      |             |  |                            |          |                             |              |   |
| 20—<br>—<br>—<br>—                                 |             |  |                            |          |                             |              |   |
| 25   |             |  |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |   |
| MENTAL BORING GRI E                                |             |  |                            |          |                             |              |   |
|  |             |  |                            |          | (                           | )            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/2/18       | Coordinates: 43.43544° N | -124.23918° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |

JOB NO. 5764-1195



JULY 2018



FIG. 30A

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available     | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|-----------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
|           |             | Asphalt concrete PAVEMENT (3 in.)/ SAND, light brown, fine grained | 0.2                        |          | Run 1                       |              | Run 1 recovery 26 in.<br>⊻4.8 ft (2/2/2018)   |
|           |             | trace silt, light gray below 8.5 ft                                |                            | 300      | Run 2<br>MS-131-9           |              | Run 2 recovery 44 in.<br>Moderate odor between depths of 8.5 to 10 ft<br>Heavy odor between depths of 10 to 15 ft |
|           |             | silty, gray below 14 ft<br>trace silt below 15 ft                  |                            |          | Run 3                       |              | Run 3 recovery 60 in.<br>Slight to moderate odor between depths of 15 to 20 ft                                    |
| 20-       |             |  |                            | 0.9      | Run 4                       |              | Run 4 recovery 40 in.   |
|           |             | silty sand lens at 24 ft<br>(2/2/2018)                             | 25.0                       | 0        | MS-131-21 X                 |              | Run 5 recovery 43 in.<br>Slight odor between depths of 23 to 24 ft  |
|           |             |  |                            |          |                             |              |   |
|           |             |  |                            |          |                             |              |   |
| 40        |             |  |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 2/2/18       | Coordinates:43.43481° N |                                 |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





JOB NO. 5764-1195

FIG. 31A

| DEPTH, FT         | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|-------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -                 |             | ר <u>Asphalt concrete PAVEMENT (5 in.)</u>                     | 0.4                        |          | Run 1                       |              | Run 1 recovery 15 in.<br>⊻4.6 ft (2/2/2018) |
| 5—<br>—<br>—<br>— |             | light gray, contains organics below 8.5 ft                     |                            |          | Run 2                       |              | Run 2 recovery 47 in.                       |
| 10—<br>—<br>—     | T TT        | light gray to gray below 10 ft<br>silty, gray below 14 ft      |                            | 2        | MS-132-9<br>Run 3           |              | Run 3 recovery 60 in.                       |
| 15—<br>—<br>—     |             | (2/2/2018)   | 15.0                       |          |                             |              |   |
| 20—<br>—<br>—     |             |  |                            |          |                             |              |   |
| <br>25—<br>       |             |  |                            |          |                             |              |   |
| <br>30—<br>       |             |  |                            |          |                             |              |   |
|                   |             |  |                            |          |                             |              |   |
|                   |             |  |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 2/2/18       | Coordinates: 43.4348° N | -124.23946° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





| <b>DEPTH</b> , FT        | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--------------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -                        |             | SAND, light brown, fine grained                                |                            |          | Run 1                       |              | Run 1 recovery 31 in.                       |
| 5—<br>—<br>—<br>—<br>10— |             | light gray to gray below 8.5 ft                                |                            | 0.3      | Run 2<br>MS-133-9           |              | Run 2 recovery 51 in.<br>∑8.3 ft (2/2/2018) |
|                          |             | trace to some silt, gray below 14 ft<br>(2/2/2018)             | — 15.0                     | 0.3      | Run 3                       |              | Run 3 recovery 60 in.                       |
| 20-                      |             |  |                            |          |                             |              |   |
| <br>25—                  |             |  |                            |          |                             |              |   |
|                          |             |  |                            |          |                             |              |   |
| 35—<br>—<br>—            |             |  |                            |          |                             |              |   |
| 40                       |             |  |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/2/18       | Coordinates: 43.43477° N | -124.23917° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| <b>DEPTH</b> , FT  | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available           | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|--------------------|--------------------|--|----------------------------|----------|-----------------------------|--------------|--|
|                    |                    | Asphalt concrete PAVEMENT (2 in.)/                                       | 0.2                        |          | Run 1                       |              | Approximately 3-inthick concrete slab or fragment<br>encountered at depth of 2 ft<br>Run 1 recovery 31 in. |
| 5—<br>—<br>—<br>—  |                    | trace silt, gray to light gray below 8.5 ft<br>contains organics at 9 ft |                            | 0.3      | Run 2                       | -            | ⊈4.7 ft (2/2/2018)<br>Run 2 recovery 57 in.  |
| 10—<br>—<br>—<br>— |                    | trace to some silt, gray below 13.5 ft                                   |                            | 0        | Run 3                       |              | Run 3 recovery 60 in.  |
| 15—<br>—<br>—<br>— |                    | (2/2/2018)   | 15.0                       |          |                             |              |  |
| 20—                |                    |  |                            |          |                             |              |  |
| 25—<br>—<br>—      |                    |  |                            |          |                             |              |  |
| 30—<br>            |                    |  |                            |          |                             |              |  |
| 35—<br>            |                    |  |                            |          |                             |              |  |
|                    |                    |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/2/18       | Coordinates: 43.43461° N | -124.23936° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| <b>DEPTH</b> , FT | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|-------------------|--------------------|---|----------------------------|----------|-----------------------------|--------------|---|
|                   |                    | SAND, trace silt and gravel, brown, fine to medium<br>grained, contains organics<br>gravel and organics absent, light brown, fine<br>grained below 0.7 ft |                            |          | Run 1                       |              | Run 1 recovery 34 in.                       |
| 5—<br>—<br>—      |                    |   |                            | 0        | Run 2                       |              | ⊈4.5 ft (2/5/2018)<br>Run 2 recovery 51 in. |
| <br>10—           |                    | light gray below 8.5 ft<br>contains wood debris at 9 ft   |                            | 0        | -                           | -            |   |
| -                 |                    | trace to some silt, gray below 13 ft  | 45.0                       | 0        | Run 3                       |              | Run 3 recovery 60 in.                       |
| 15—<br>—<br>—     |                    | (2/5/2018)  | - 15.0                     |          | -                           |              |   |
| <br>20            |                    |   |                            |          |                             |              |   |
| <br>25—           |                    |   |                            |          |                             |              |   |
|                   |                    |   |                            |          |                             |              |   |
| 30—<br>           |                    |   |                            |          |                             |              |   |
|                   |                    |   |                            |          |                             |              |   |
|                   |                    |   |                            |          |                             |              |   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/5/18       | Coordinates: 43.43494° N | -124.23958° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| SAND, light brown, fine grained  SAND, light brown, fine grained  Run 1  Run 1  Run 2  Run 2  MS-136-9 | Run 1 recovery 37 in.<br>⊈4.5 ft (2/5/2018)<br>Run 2 recovery 60 in. |
|--|--|
| Run 2  |  |
|  |  |
| Run 3  | Run 3 recovery 60 in.  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

| Logged By: C. Smerdon      | Drilled by: Stratus    | Drilled by: Stratus Corporation |  |  |
|----------------------------|------------------------|---------------------------------|--|--|
| Date Started: 2/5/18       | -124.23925° W (WGS 84) |                                 |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used  |                                 |  |  |
| Equipment: Geoprob         | Weight:                |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                  |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:          |                                 |  |  |





| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|---------------|-------------|---|----------------------------|------------|-----------------------------|--------------|--|
|               |             | ר <u>Portland cement CONCRETE (5 in.)</u><br>SAND, light brown, fine grained  | 0.4                        |            | Run 1                       |              | Run 1 recovery 34 in.<br>⊈3.6 ft (2/5/2018)                              |
| 5             |             | Sandy GRAVEL, trace silt, fine- to medium-grained sand sand SAND, light brown, fine grained                                     | 4.5<br>5.5                 | 0.9        | Run 2                       |              | Run 2 recovery 58 in.  |
| 10—<br>—<br>— |             |   | 13.5                       | 0.8<br>0.5 | Run 3                       |              | Run 3 recovery 60 in.  |
|               |             | SILT, some fine-grained sand, gray<br>some clay, trace sand below 14.5 ft<br>SAND, trace silt, gray to light gray, fine grained | 15.5                       | 0.5<br>0.4 | HF-137-16<br>Run 4          |              | Very slight sheen between depths of 13 to 20 ft<br>Run 4 recovery 45 in. |
| 20            |             | (2/5/2018)  | 20.0                       |            |                             |              |  |
| <br>25—       | -           |   |                            |            |                             |              |  |
|               | -           |   |                            |            |                             |              |  |
|               |             |   |                            |            |                             |              |  |
|               | -           |   |                            |            |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus    | Corporation |
|----------------------------|------------------------|-------------|
| Date Started: 2/5/18       | -124.24101° W (WGS 84) |             |
| Drilling Method: Direct Pu | Hammer Type: Not Used  |             |
| Equipment: Geoprob         | Weight:                |             |
| Hole Diameter: 3 in.       | Drop:                  |             |
| Note: See Legend for Expla | Energy Ratio:          |             |





JOB NO. 5764-1195

FIG. 37A

| <b>DEPTH</b> , FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|-------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -                 |             | SAND, trace to some silt, light brown, fine grained, contains organics<br>up to trace silt, organics absent below 0.5 ft |                            |          | Run 1                       |              | Run 1 recovery 34 in.<br>⊻3.3 ft (2/5/2018) |
| 5—<br>—<br>—      |             | contains wood debris at 8.5 ft   |                            | 1.6      | Run 2                       | -            | Run 2 recovery 55 in.                       |
| 10—<br>—<br>—     |             | trace silt, light brown-gray below 9 ft  | 10.5                       | 0        | Run 3                       | -            | Run 3 recovery 60 in.                       |
|                   |             | Clayey SILT, trace fine-grained sand, gray (2/5/2018)  | - 13.5<br>- 15.0           | 0        |                             |              |   |
| 20-               |             |  |                            |          |                             |              |   |
| <br>25            |             |  |                            |          |                             |              |   |
|                   |             |  |                            |          |                             |              |   |
|                   |             |  |                            |          |                             |              |   |
|                   |             |  |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Corporation            |  |
|----------------------------|------------------------|--|
| Date Started: 2/5/18       | -124.24114° W (WGS 84) |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used  |  |
| Equipment: Geoprob         | Weight:                |  |
| Hole Diameter: 3 in.       | Drop:                  |  |
| Note: See Legend for Expla | Energy Ratio:          |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available        | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--|-------------|---|----------------------------|------------|-----------------------------|--------------|---|
| -  |             | SAND, light brown, fine grained                                       |                            |            | Run 1                       |              | Run 1 recovery 19 in.<br>⊈3.2 ft (2/5/2018) |
| 5—   |             | contains organics at 5 ft, trace silt, brown below 5 ft<br>(2/5/2018) | 7.0                        | 0.2<br>0.2 | Run 2                       |              | Run 2 recovery 16 in.                       |
|  |             | Refusal on obstruction at 7 ft  |                            |            |                             |              |   |
| <br>15—  |             |   |                            |            |                             |              |   |
| 20-  |             |   |                            |            |                             |              |   |
|  |             |   |                            |            |                             |              |   |
| DT 7/26/18   |             |   |                            |            |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |            |                             |              |   |
| MENTAL BORING GR                                   |             |   |                            |            |                             |              |   |
|  |             |   |                            |            |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/5/18       | Coordinates: 43.43557° N | -124.24094° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |



JULY 2018



Reissued for Use

| DEPTH, FT<br>GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--------------------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -                        | Portland cement CONCRETE (5 in.) / Portland cement CONCRETE (5 in.) / SAND, light brown, fine grained | 0.4                        |          | Run 1                       |              | Run 1 recovery 24 in.<br>⊻3.5 ft (2/5/2018) |
| 5                        | trace to some silt below 8 ft   |                            | 0        | Run 2                       |              | Run 2 recovery 48 in.                       |
|                          | coarse sand with some gravel lens at 8.5 ft<br>light brown-gray below 10 ft<br>gray below 13 ft       |                            | 0        | Run 3                       |              | Run 3 recovery 60 in.                       |
|                          | - Clayey SILT, gray<br>(2/5/2018)   | 14.5<br>15.0               | 0        | HF-140-13                   |              |   |
| <br>20                   |   |                            |          |                             |              |   |
| <br>25—                  |   |                            |          |                             |              |   |
| <br><br>30               |   |                            |          |                             |              |   |
|                          |   |                            |          |                             |              |   |
| -                        |   |                            |          |                             |              |   |

| Logged By: C. Smerdon      | Drilled by: Stratus   | Drilled by: Stratus Corporation |  |  |
|----------------------------|-----------------------|---------------------------------|--|--|
| Date Started: 2/5/18       | -124.2409° W (WGS 84) |                                 |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used |                                 |  |  |
| Equipment: Geoprob         | Weight:               |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                 |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:         |                                 |  |  |





Reissued for Use

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--|-------------|---|----------------------------|------------|-----------------------------|--------------|---|
|  |             | SAND, light brown, fine grained   |                            |            | Run 1                       |              | Run 1 recovery 22 in.<br>⊈3.8 ft (2/5/2018) |
| 5  |             | 4.5 ft  |                            | 0.6        | Run 2<br>HF-141-8           |              | Run 2 recovery 52 in.                       |
| 10—<br>—<br>—<br>—   | ТПТ         | SILT, some clay and fine-grained sand, gray<br>grades to clayey silt/silty clay below 14.5 ft | 13.5                       | 0.6<br>0.8 | Run 3                       |              | Run 3 recovery 60 in.                       |
| 15—<br>—<br>—<br>—   | ***         | grades to clayey silt/silty clay below 14.5 ft<br>(2/5/2018)                                  | 15.0                       |            |                             |              |   |
| 20—<br>—<br>—<br>—   |             |   |                            |            |                             |              |   |
| 25<br>   |             |   |                            |            |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18   |             |   |                            |            |                             |              |   |
| MENTAL BORING GRID<br>32<br>1<br>1<br>1<br>28<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 |             |   |                            |            |                             |              |   |
|  |             |   |                            |            |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus                           | Drilled by: Stratus Corporation |  |  |
|----------------------------|---|---------------------------------|--|--|
| Date Started: 2/5/18       | Date Started: 2/5/18 Coordinates: 43.43561° N |                                 |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used                         |                                 |  |  |
| Equipment: Geoprob         | Weight:                                       |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:                                 |                                 |  |  |





| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available         | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|---------------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -             |             | Sandy GRAVEL, soem silt, fine- to coarse-grained sand                  |                            |          | Run 1                       |              | Run 1 recovery 42 in.<br>⊻4.3 ft (2/5/2018)                                   |
| 5             |             | silty below 5 ft<br>SAND, trace silt, gray to light gray, fine grained | 8.5                        |          | Run 2                       |              | Run 2 recovery 27 in.   |
|               |             | SAND, trace sin, gray to ignt gray, line grained                       |                            | 0<br>0   | CT-142-11                   |              | Moderate sheen and odor between depths of 9 to 11 ft<br>Run 3 recovery 60 in. |
|               |             | Sandy SILT, gray, fine-grained sand                                    | · 14.0<br>· 15.0           | 0        | Run 4                       |              | Run 4 recovery 43 in.   |
| 20            |             | silt with some clay lens at 19 ft<br>(2/5/2018)                        | · 20.0                     |          |                             |              |   |
| -<br>25-<br>- |             |  |                            |          |                             |              |   |
| 30-           |             |  |                            |          |                             |              |   |
|               |             |  |                            |          |                             |              |   |
|               |             |  |                            |          |                             | )            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/5/18       | Coordinates: 43.43525° N | -124.24111° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
|  |             | SAND, light brown, fine grained                                |                            |          | Run 1                       |              | Run 1 recovery 36 in.<br>⊻3.6 ft (2/5/2018) |
|  |             | trace silt, light gray below 8.5 ft                            |                            | 0.5      | Run 2                       |              | Run 2 recovery 55 in.                       |
|  |             | Clayey SILT, gray  | 13.5                       | 0.6      | CT-143-11                   |              | Run 3 recovery 60 in.                       |
| <br><br>   |             |  |                            |          |                             |              |   |
|  |             |  |                            |          |                             |              |   |
| EMPLATE.GDT 7/26/18                                |             |  |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |   |
|  |             |  |                            |          | (                           | )            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 2/5/18       | Coordinates: 43.4352° N | -124.24073° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                            | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -  |             | Sandy GRAVEL, trace silt, fine-graiend sand   | 1.0                        |          | Run 1                       |              | Run 1 recovery 36 in.<br>⊻3.5 ft (2/5/2018) |
| 5—<br>—<br>—<br>—                                  |             | trace silt below 5 ft<br>contains wood debris at 8.5 ft, light gray-brown<br>below 8.5 ft |                            | 0        | Run 2                       |              | Run 2 recovery 60 in.                       |
| 10—<br>—<br>—<br>—                                 |             | SILT, some clay and fine-grained sand, gray   | 14.0                       | 0        | Run 3                       |              | Run 3 recovery 60 in.                       |
| 15—<br>—<br>—<br>—                                 |             | contains wood debris near 15 ft / SAND, trace silt, gray, fine grained/                   | 15.0                       |          | Run 4                       |              | Run 4 recovery 44 in.                       |
| 20—<br>—<br>—<br>—                                 |             | (2/5/2018)  | 20.0                       |          | -                           |              |   |
| 25-<br>-<br>81/97/2 -                              |             |   |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |          |                             |              |   |
| CONMENTAL BORING G                                 |             |   |                            |          |                             |              |   |
|  |             |   |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/5/18       | Coordinates: 43.43514° N | -124.24108° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|--------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
|                    |             | Sandy GRAVEL, trace to some silt, fine- to<br>coarse-grained sand, contains organics<br>organics absent below 0.5 ft<br>increasing sand content with depth | 5.0                        |          | Run 1                       |              | Run 1 recovery 41 in.<br>⊻3.8 ft (2/6/2018)   |
| -                  |             | Silty SAND, some gravel, red-brown, fine to medium grainedtrace silt, gray, fine grained below 8 ft  | 0.0                        | 0        | Run 2<br>CT-145-7           | X            | Run 2 recovery 34 in.<br>Moderate sheen and discoloration, moderate to heavy odor<br>between depths of 7 to 14 ft |
| 10—<br>—<br>—<br>— |             | trace to some silt below 10 ft<br>   | 13.5                       | 0        | Run 3                       |              | Run 3 recovery 55 in.   |
| 15—<br>—<br>—      |             | SAND, trace to some silt, gray, fine grained,  | 15.0                       | 0        | CT-145-16<br>Run 4          | X            | Run 4 recovery 44 in.   |
| <br>20<br>         |             | SILT, some clay, gray  | 19.5<br>20.0               |          |                             |              |   |
| <br>25<br>         | -           |  |                            |          |                             |              |   |
| <br>30             | -           |  |                            |          |                             |              |   |
| -<br>-<br>35-      |             |  |                            |          |                             |              |   |
|                    |             |  |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/6/18       | Coordinates: 43.43528° N | -124.24121° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT          | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                     |
|--------------------|--------------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -                  |                    | Sandy GRAVEL, some silt to silty, fine- to<br>coarse-grained sand/<br>SAND, light brown, fine grained       | - 1.0                      |          | Run 1                       |              | Run 1 recovery 38 in.<br>⊻4.2 ft (2/6/2018)                          |
| 5—<br>—<br>—<br>—  |                    | trace silt, light brown-gray, contains organics<br>below 8.5 ft   |                            | 0        | Run 2                       |              | Run 2 recovery 60 in.<br>Slight sheen between depths of 8.5 to 20 ft |
| 10—<br>—<br>—<br>— |                    | trace to some silt below 12 ft<br>clayey silt with some sand lens at 14 ft<br>some silt, gray below 14.5 ft |                            | 0        | Run 3<br>CT-146-13          |              | Run 3 recovery 60 in.  |
| 15—<br>—<br>—<br>— |                    | clayey silt lens at 17 ft   |                            |          | Run 4                       |              | Run 4 recovery 42 in.  |
| 20                 |                    | (2/6/2018)  | 20.0                       |          |                             |              |  |
| 25—<br>—<br>—      |                    |   |                            |          |                             |              |  |
| 30—<br>            |                    |   |                            |          |                             |              |  |
| 35—<br>            |                    |   |                            |          |                             |              |  |
| 40                 |                    |   |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/6/18       | Coordinates: 43.43519° N | -124.24121° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                       | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|--------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -                  |             | SAND, light brown, fine grained<br>Sandy GRAVEL, some silt to silty, fine- to<br>coarse-grained sand | - 1.0                      |          | Run 1                       |              | Run 1 recovery 32 in.   |
| 5                  |             | SAND, light brown, fine grained  | - 5.0                      | 0        | Run 2                       |              | <ul> <li> <sup>1</sup> G.2 ft (2/6/2018)     </li> <li>         Run 2 recovery 44 in.         Moderate odor between depths of 8 to 14 ft     </li> <li>         Slight sheen between depths of 9 to 20 ft     </li> </ul> |
|                    |             | trace to some silt, light gray below 12.5 ft<br>gray, contains organics below 14 ft                  |                            | 0        | Run 3                       | -            | Run 3 recovery 60 in.<br>Moderate sheen at 14 ft  |
|                    |             | clayey silt lenses up to 3 in. thick at 17 ft<br>(2/6/2018)  | - 20.0                     | 0        | Run 4                       |              | Run 4 recovery 50 in.   |
| -<br>-<br>-<br>25- | -           |  |                            |          |                             |              |   |
|                    | -           |  |                            |          |                             |              |   |
|                    |             |  |                            |          |                             |              |   |
|                    |             |  |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/6/18       | Coordinates: 43.43532° N | -124.24103° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| <b>DEPTH</b> , FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -                 |             | Asphalt concrete PAVEMENT (7.5 in.)<br>Sandy GRAVEL, trace silt, fine- to coarse-grained<br>sand | 0.6                        |          | Run 1                       |              | Run 1 recovery 27 in.            |
| 5                 |             | SAND, light brown, fine grained  | 4.5                        |          |                             |              | ⊻4.6 ft (2/6/2018)               |
| -<br>-<br>10-     |             | trace silt, light gray-brown below 8.5 ft  |                            | 0        | Run 2<br>CT-148-9           |              | Run 2 recovery 55 in.            |
| -                 |             | Clayey sandy SILT, gray, fine-grained sand   | 13.5                       | 0        | Run 3                       |              | Run 3 recovery 60 in.            |
| 15                |             | (2/6/2018)   | 15.0                       |          |                             |              |                                  |
| <br>20—           | -           |  |                            |          |                             |              |                                  |
| -                 | -           |  |                            |          |                             |              |                                  |
| 25-               | -           |  |                            |          |                             |              |                                  |
|                   | -           |  |                            |          |                             |              |                                  |
|                   | -           |  |                            |          |                             |              |                                  |
|                   |             |  |                            |          |                             |              |                                  |
| 40-               |             |  |                            |          |                             | )            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/6/18       | Coordinates: 43.43542° N | -124.24099° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| ОЕРТН, FT          | GRAPHIC LOG   | CLASSIFICATION OF MATERIAL   | ELEVATION, FT<br>DEPTH, FT | O, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                    |
|--------------------|---|--|----------------------------|--------|-----------------------------|--------------|---|
| DE                 | GF  | Surface Elevation: Not Available   |                            | PID,   | SA<br>AN                    | Ň            |   |
| _                  |   | Asphalt concrete PAVEMENT (8 in.)<br>Sandy GRAVEL, some silt, fine- to coarse-grained<br>sand  | 0.6                        |        |                             |              | Dur d recence 40 in   |
| -                  |   | SAND, light brown, fine grained  | 2.5                        |        | Run 1                       |              | Run 1 recovery 40 in.   |
| 5-                 |   |  |                            |        |                             |              | ⊻4.5 ft (2/6/2018)  |
|                    |   | trace silt, light gray below 8.5 ft  |                            |        | Run 2                       |              | Run 2 recovery 52 in.   |
| -                  |   | some silt, contains wood debris below 12 ft<br>Clayey SILT, some fine-grained sand, gray, contains<br>wood debris                                    | - 13.0                     | 0      | Run 3<br>CT-149-13          |              | Run 3 recovery 60 in.<br>Slight sheen between depths of 13 to 25 ft |
| 15-<br>-<br>-      |   | grades to clay below 14.5 ft<br>SAND, some silt, light gray, fine grained, contains<br>organics and wood debris<br>silt with some clay lens at 18 ft | - 15.0                     | 0      | Run 4                       |              | Run 4 recovery 45 in.   |
| 20-                |   | silt with some clay lens at 20 ft  |                            |        |                             |              |   |
| -<br>-<br>25-<br>- |   |  |                            |        | Run 5                       |              | Run 5 recovery 45 in.   |
| 01/07//            |   |  |                            |        | Run 6                       |              | Run 6 recovery 45 in.   |
|                    |   | (2/6/2018)   | 30.0                       |        | CT-149-29                   |              |   |
|                    |   |  |                            |        |                             |              |   |
| 35-<br>35-<br>-    |   |  |                            |        |                             |              |   |
|                    |   |  |                            |        |                             |              |   |
| <u>40</u> –40–     |   |  |                            |        | (                           | )            | 1.0   |
| Logaed             | By: C.  | Smerdon Drilled by: Stratus Corporation  |                            |        |                             |              |   |
| Date St            | arted:  | 2/6/18 Coordinates:43.43537° N -124.24123° W (   |                            |        |                             |              |   |
| Eq                 | uipmer  | d: Direct Push Probe Hammer Type:<br>t: Geoprobe 7822DT Weight:  |                            |        |                             |              |   |
| Hole D             | )iamete   | er: 3 in. Drop:  |                            |        |                             | J            | <b>R</b> BORING CT-149  |
| Note: S            | Note: See Legend for Explanation of Symbols Energy Ratio: |  |                            |        |                             |              |   |

| Docu | ument No: | J1-680-RGL- | GRI-00001-00 |  |
|------|-----------|-------------|--------------|--|



JOB NO. 5764-1195

Revision: 1

Reissued for Use

FIG. 49A

| DEPTH, FT     | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                             | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|---------------|--------------------|--|----------------------------|----------|-----------------------------|--------------|--|
|               | •0°                | SAND, light brown, fine grained  | 2.0                        |          | Run 1                       |              | Run 1 recovery 52 in.<br>∑3.4 ft (2/6/2018)<br>Slight sheen between depths of 4 to 20 ft |
| 5             |                    | trace silt below 5 ft<br>trace to some silt, light gray, contains organics<br>below 8.5 ft |                            |          | Run 2                       |              | Run 2 recovery 60 in.  |
| 10            |                    | some silt below 10 ft  | 13.5                       |          | Run 3<br>CT-150-13          |              | Run 3 recovery 60 in.  |
| 15—<br>—<br>— | ШИ<br>Ц            | SAND, some silt, gray, fine grained, contains organics                                     | 15.0                       |          | Run 4                       |              | Run 4 recovery 45 in.  |
| 20            | ХЙ                 | Clayey SILT, trace fine-grained sand, gray<br>(2/6/2018)                                   | 19.0<br>20.0               |          |                             |              |  |
| 25—<br>       |                    |  |                            |          |                             |              |  |
|               | -                  |  |                            |          |                             |              |  |
| 35-           |                    |  |                            |          |                             |              |  |
|               |                    |  |                            |          | (                           | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/6/18       | Coordinates: 43.43533° N | -124.24132° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                            |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -  |             | Asphalt concrete PAVEMENT (4 in.)/<br>Sandy GRAVEL, some silt, fine- to coarse-grained<br>sand/<br>SAND, light brown, fine grained | 0.3<br>2.0                 |          | Run 1                       |              | <sup>,</sup><br>⊈2.5 ft (2/6/2018)<br>Run 1 recovery 24 in. |
| 5  |             | light gray-brown below 7.5 ft  |                            |          | Run 2                       |              | Run 2 recovery 60 in.                                       |
| 10—<br>—<br>—                                      | W           | Clayey SILT, trace to some fine-grained sand, gray   | 12.5                       |          | Run 3<br>CT-151-12          |              | Slight sheen below 12 ft<br>Run 3 recovery 60 in.           |
|  |             | SAND, some silt, gray, fine grained (2/6/2018)   | · 14.0<br>· 15.0           |          |                             |              |   |
| 20-  |             |  |                            |          |                             |              |   |
| 25-<br>-   |             |  |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |   |
| AL BORING GRI DATA                                 |             |  |                            |          |                             |              |   |
|  |             |  |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/6/18       | Coordinates: 43.43518° N | -124.24155° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

110.01

| ДЕРТН, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                   |
|--------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
|                    |             | Silty SAND, brown, fine grained, contains organics<br>up to trace silt, light brown below 1 ft   |                            |          | Run 1                       |              | Run 1 recovery 36 in.<br>⊈3.9 ft (2/6/2018)                        |
| 5—<br>—<br>—<br>—  |             | trace to some silt, light brown-gray below 6 ft<br>contains organics between depths of 8 to 9 ft |                            |          | Run 2                       |              | Run 2 recovery 52 in.<br>Slight sheen between depths of 8 to 15 ft |
| 10—<br>—<br>—      |             | some silt, gray, contains organics and wood debris below 10 ft                                   |                            |          | Run 3<br>CT-152-13          |              | Run 3 recovery 60 in.  |
| 15 <u></u><br><br> | XX.         | Clayey SILT, trace fine-grained sand, gray (2/6/2018)  | 14.0<br>15.0               |          |                             |              |  |
| 20—<br>            |             |  |                            |          |                             |              |  |
| 25-                |             |  |                            |          |                             |              |  |
| PLAIE-GUI //26/18  |             |  |                            |          |                             |              |  |
|                    |             |  |                            |          |                             |              |  |
|                    |             |  |                            |          |                             | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/6/18       | Coordinates: 43.43525° N | -124.24083° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|---------------|-------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -             | 000         | Asphalt cocnrete PAVEMENT (4 in.) /<br>Sandy GRAVEL, some silt, fine- to coarse-grained /<br>sand/<br>SAND, light brown, fine grained | 0.3                        |          | Run 1                       |              | ⊻2.4 ft (2/7/2018)<br>Run 1 recovery 45 in. |
| 5—<br>—<br>—  |             | trace to some silt, gray below 5 ft<br>gray mottled brown, contains organics and wood<br>debris at 8 ft                               |                            | 0        | Run 2                       |              | Run 2 recovery 60 in.                       |
| 10—<br>—<br>— |             |   | 13.0                       | 0        | Run 3                       |              | Run 3 recovery 60 in.                       |
| <br>15—       |             | SILT, some clay and fine-grained sand, gray<br>SAND, some silt, gray, fine grained<br>(2/7/2018)                                      | 14.0<br>15.0               | 0        |                             |              |   |
| 20-           |             |   |                            |          |                             |              |   |
| <br>25—       |             |   |                            |          |                             |              |   |
|               |             |   |                            |          |                             |              |   |
|               |             |   |                            |          |                             |              |   |
|               |             |   |                            |          | (                           |              | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43507° N | -124.24134° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                            | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|-----------|-------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -         |             | Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand (Fill)                     |                            |          | Run 1                       |              | Run 1 recovery 19 in.                       |
| 5         |             | SAND, light brown, fine grained, contains organics  | 5.0                        | 0        | Run 2                       |              | ⊊4.5 ft (2/7/2018)<br>Run 2 recovery 27 in. |
|           |             | trace to some silt, light brown-gray below 8.5 ft<br>gray below 10 ft                     |                            | 0        | Run 3                       | -            |   |
|           | ИX.         | Clayey SILT, trace to some fine-grained sand, gray,<br>contains wood debris<br>(2/7/2018) | · 14.0<br>· 15.0           | 0        | Ruli 3                      |              | Run 3 recovery 60 in.                       |
| 20-       | -           |   |                            |          |                             |              |   |
|           | -           |   |                            |          |                             |              |   |
| _         | -           |   |                            |          |                             |              |   |
|           | -           |   |                            |          |                             |              |   |
|           |             |   |                            |          |                             |              |   |
|           |             |   |                            |          |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43485° N | -124.24155° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | Asphalt concrete PAVEMENT (5 in.) Asphalt concrete PAVEMENT (5 in.) / Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand (Fill) | 0.4                        |          | Run 1                       |              | Run 1 recovery 26 in.            |
| 5  |             | SAND, some gravel, trace to some silt, brown-gray,<br>fine to coarse grained (Fill)<br>(2/7/2018)<br>Practical refusal at 7 ft              | 5.0<br>7.0                 |          | Run 2                       |              | Run 2 recovery 15 in.            |
| 10—<br>—<br>—                                      |             | Groundwater not encountered   |                            |          |                             |              |                                  |
|  |             |   |                            |          |                             |              |                                  |
| 20   |             |   |                            |          |                             |              |                                  |
| 25—<br>25—<br>                                     |             |   |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |          |                             |              |                                  |
| ITAL BORING GRI DAT.                               |             |   |                            |          |                             |              |                                  |
| - ENVIRONMEN<br>- 40                               |             |   |                            |          | (                           | )            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43452° N | -124.24136° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|--|--------------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -  |                    | Asphalt concrete PAVEMENT (3 in.) /<br>SAND, some silt, trace gravel, dark brown, fine to<br>coarse grained<br>up to trace silt, gravel absent, light brown-gray,<br>fine grained below 1 ft | 0.2                        |          | Run 1                       |              | ⊻1.6 ft (2/7/2018)<br>Run 1 recovery 26 in.                                |
| 5  |                    | trace to some silt, contains wood debris 5 ft<br>(2/7/2018)  | • 7.5                      | 0.4      | Run 2<br>DB-156-6           |              | Run 2 recovery 18 in.<br>Slight odor and sheen between depths of 6 to 7 ft |
| 10—<br>—<br>—                                      |                    | Practical refusal at 7.5 ft  |                            |          |                             |              |  |
| 15—<br>—<br>—                                      |                    |  |                            |          |                             |              |  |
| <br>20<br>   |                    |  |                            |          |                             |              |  |
| <br>25—  |                    |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |                    |  |                            |          |                             |              |  |
| - BORING GRI DATATI<br>                            |                    |  |                            |          |                             |              |  |
| ENVIRONMENTAL<br>                                  |                    |  |                            |          |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43467° N | -124.24107° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

| <b>DEPTH</b> , FT                                  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | Asphalt concrete PAVEMENT (5 in.) / Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand (Fill) SAND, light brown, fine grained | 0.4                        |          | Run 1                       |              | Run 1 recovery 37 in.            |
| 5  |             | (2/7/2018)<br>Practical refusal at 5.3 ft<br>Groundwater not encountered  | 5.3                        |          | DB-157-5<br>Run 2           |              | Run 2 recovery 4 in.             |
| 10—<br>—<br>—                                      |             |   |                            |          |                             |              |                                  |
|  |             |   |                            |          |                             |              |                                  |
| 20   |             |   |                            |          |                             |              |                                  |
| 25   |             |   |                            |          |                             |              |                                  |
| MPLATE.GDT 7/26/18                                 |             |   |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |          |                             |              |                                  |
| ENVIRONMENTAL B<br>                                |             |   |                            |          |                             | )            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates:43.43435° N | 1                               |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |



JULY 2018



| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | ,  | 4.0                        |          | Run 1                       |              | Run 1 recovery 37 in.            |
| 5<br>-<br>-  |             | SAND, light gray, fine grained<br>(2/7/2018)<br>Practical refusal at 5.1 ft<br>Groundwater not encountered | 5.1                        | 0.2      | Run 2 💻                     |              | Run 2 recovery 1 in.             |
|  | -           |  |                            |          |                             |              |                                  |
|  | -           |  |                            |          |                             |              |                                  |
| 20   | -           |  |                            |          |                             |              |                                  |
| 25   | -           |  |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 | -           |  |                            |          |                             |              |                                  |
| L BORING GRI DATA T<br>                            | -           |  |                            |          |                             |              |                                  |
| - ENVIRONMENTA<br>                                 | -           |  |                            |          | (                           | 0            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43441° N | -124.24117° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |



JULY 2018



Reissued for Use

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available    | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                      |
|--|-------------|---|----------------------------|------------|-----------------------------|--------------|---|
| -  |             | Sandy GRAVEL, trace to some silt, fine- to<br>coarse-grained sand | 0.4                        |            | Run 1                       |              | Run 1 recovery 18 in.   |
| 5<br>-<br>-  |             | SAND, light brown to brown-gray, fine grained (2/7/2018)          | 4.5<br>7.7                 | 0.6<br>0.3 | Run 2<br>DB-159-7           |              | Run 2 recovery 20 in.<br>⊈6.8 ft (2/7/2018)<br>Slight odor below 7 ft |
|  | -           | Practical refusal at 7.7 ft                                       |                            |            |                             |              |   |
| -<br>15-<br>-                                      | -           |   |                            |            |                             |              |   |
| -<br>20-<br>-                                      | -           |   |                            |            |                             |              |   |
| -<br>-<br>25-<br>-                                 | -           |   |                            |            |                             |              |   |
| MPLATE.GDT 7/26/18                                 | -           |   |                            |            |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |            |                             |              |   |
| - ENVIRONMENTAL E                                  | -           |   |                            |            |                             | )            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43438° N | -124.24132° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--------------------|-------------|--|----------------------------|------------|-----------------------------|--------------|---|
| -                  |             | Sandy GRAVEL, trace silt, fine- to coarse-grained sand           | • 4.0                      |            | Run 1                       |              | Run 1 recovery 35 in.                       |
| 5                  |             | SAND, light brown, fine grained                                  |                            |            | Run 2                       |              | ⊻5.2 ft (2/7/2018)<br>Run 2 recovery 45 in. |
|                    |             | trace to some silt, gray below 10 ft                             |                            | 0.4<br>0.4 | Run 3                       |              | Run 3 recovery 55 in.                       |
| -<br>-<br>15-<br>- | XX.         | Clayey SILT, trace to some fine-grained sand, gray<br>(2/7/2018) | · 14.0<br>· 15.0           | 0.4        | Run 3<br>DB-160-12          |              |   |
|                    | -           |  |                            |            |                             |              |   |
| -<br>-<br>-<br>25- | -           |  |                            |            |                             |              |   |
| DI //26/18         | -           |  |                            |            |                             |              |   |
|                    | -           |  |                            |            |                             |              |   |
|                    |             |  |                            |            |                             |              |   |
|                    |             |  |                            |            |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43439° N | -124.24107° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available            | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|-----------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
|           |             | SAND  |                            |          | Run 1                       |              | Run 1 recovery 16 in.  |
| -         |             | ¬ Portland cement CONCRETE (6 in.) / ·<br>SAND, light brown, fine grained | 1.5<br>2.0                 |          | Run 2                       |              | Probe refusal on concrete at 1.5 ft; driller uses destructive<br>drill bit to penetrate to 2 ft<br>Run 2 recovery 17 in. |
| 5—        |             |   |                            | 0.1      | -                           |              |  |
| -         |             | contains wood debris at 8.5 ft, contains organics below 8.5 ft            |                            |          | Run 3                       |              | Run 3 recovery 48 in.  |
| 10—       |             | trace to some silt, gray below 10 ft                                      |                            |          | -                           |              |  |
| _         |             |   |                            |          | Run 4<br>DB-161-13          |              | Run 4 recovery 60 in.<br>Sight sheen between depths of 13 to 30 ft   |
| <br>15    |             | some silt below 15 ft   |                            |          |                             |              | Sight sheet between depths of 13 to 30 ft  |
| _         |             |   |                            | 0.2      | Run 5                       |              | Run 5 recovery 40 in.  |
| _         |             |   |                            |          |                             |              |  |
| 20—       |             |   |                            |          |                             |              |  |
| _         |             |   |                            |          | Run 6                       |              | Run 6 recovery 41 in.  |
| <br>25—   |             |   |                            | 0.5      | -                           |              |  |
| _         |             |   |                            |          | Run 7                       |              | Run 7 recovery 44 in.  |
| -<br>30-  |             | (27)2242  | 30.0                       | 0.4      | DB-161-30                   |              |  |
| _         |             | (2/7/2018)<br>Depth to groundwater not measured due to caving,            |                            |          |                             |              |  |
| _         |             | observed to be at least 10 ft below existing grade                        |                            |          |                             |              |  |
| <br>35    |             |   |                            |          |                             |              |  |
| _         |             |   |                            |          |                             |              |  |
| -         |             |   |                            |          |                             |              |  |
| -40       | · · · · ·   |   | ·                          | ·        | [(                          | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43417° N | -124.2412° W (WGS 84)           |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | anation of Symbols       | Energy Ratio:                   |  |  |





Reissued for Use

| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|---------------|-------------|--|----------------------------|------------|-----------------------------|--------------|---|
|               |             | Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand   | 4.0                        |            | Run 1                       |              | Run 1 recovery 37 in.   |
| 5             |             | SAND, light brown, fine grained, contains wood debris and organics   |                            | 1.8<br>0.1 | Run 2                       |              | Slight to moderate odor between depths of 5 to 8 ft<br>↓7.3 ft (2/7/2018)<br>Run 2 recovery 47 in.<br>Moderate to heavy odor between depths of 8 to 10 ft<br>Moderate to heavy sheen between depths of 8 to 11 ft |
|               |             | 12-inthick layer of wood debris with some sand<br>and trace silt at 9 ft<br>trace to some silt, light brown-gray below 10 ft |                            | 1.2        | DB-162-10                   |              | Moderate to heavy sheen between depths of 8 to 11 ft<br>Run 3 recovery 49 in.<br>Slight sheen between depths of 12 to 20 ft   |
|               |             |  |                            |            | <br>Run 4                   |              | Run 4 recovery 34 in.   |
| <br>20—       |             | Sandy SILT, some clay, gray, fine-grained sand   | 18.0<br>20.5<br>21.0       |            | DB-162-21                   |              | Run 5 recovery 39 in.   |
| -<br>25-<br>- |             | (2/7/2018)   | 25.0                       |            |                             |              |   |
| 30-           |             |  |                            |            |                             |              |   |
|               |             |  |                            |            |                             |              |   |
|               |             |  |                            |            |                             | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/7/18       | Coordinates: 43.43433° N | -124.24137° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

JOB NO. 5764-1195

| DEPTH, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -                  |             | Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand | 4.3                        |          | Run 1                       |              | Run 1 recovery 33 in.                        |
| 5—<br>—<br>—       |             | SAND, light brown, fine grained                                | 7.0                        | 0.8      | Run 2                       |              | Run 2 recovery 50 in.                        |
|                    |             | trace silt below 10 ft   |                            | 1.3      | DB-163-11                   |              | ⊻11.3 ft (2/8/2018)<br>Run 3 recovery 60 in. |
|                    |             | (2/8/2018)   | - 15.0                     |          |                             |              |  |
| 20                 | -           |  |                            |          |                             |              |  |
| <br>25—            |             |  |                            |          |                             |              |  |
| MPLAIE.GDI //26/18 |             |  |                            |          |                             |              |  |
|                    |             |  |                            |          |                             |              |  |
| - ENVIRONMENTALE   |             |  |                            |          | (                           | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43431° N | -124.24139° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand   | 3.5                        |          | Run 1                       |              | Run 1 recovery 35 in.            |
| 5<br>-<br>-  |             | SAND, some silt, gray to dark brown, fine to medium<br>grained, contains wood debris<br>light brown below 5.5 ft<br>(2/8/2018) | 7.5                        | 1.2      | Run 2                       |              | Run 2 recovery 26 in.            |
|  | -           | Practical refusal at 7.5 ft<br>Groundwater not encountered   |                            |          |                             |              |                                  |
| <br>15<br>   | -           |  |                            |          |                             |              |                                  |
| _<br><br>  | -           |  |                            |          |                             |              |                                  |
| -<br>-<br>25-                                      | -           |  |                            |          |                             |              |                                  |
| ATE.GDT 7/26/18                                    | -           |  |                            |          |                             |              |                                  |
|  | -           |  |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 | -           |  |                            |          |                             |              |                                  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43437° N | -124.2414° W (WGS 84)           |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT             | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-----------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -                     |             | Sandy GRAVEL, trace to some silt, fine- to coarse-grained sand  | 4.0                        |          | Run 1                       |              | Run 1 recovery 40 in.            |
| 5                     |             | SAND, light brown, fine grained<br>trace silt, contains wood debris and organics<br>below 5 ft        | 4.0                        |          | Run 2                       |              | Run 2 recovery 41 in.            |
|                       |             | 12-inthick layer of wood debris with some sand<br>at 9 ft<br>trace to some silt below 10 ft           |                            | 1.4      | DB-165-10                   |              |                                  |
| -<br>-<br>15-         |             | grades to gray below 14 ft<br>(2/8/2018)  | 15.0                       | 1.3      | Run 3                       |              | Run 3 recovery 60 in.            |
|                       | -           | Depth to groundwater not measured due to caving,<br>observed to be at least 8 ft below existing grade |                            |          |                             |              |                                  |
|                       | -           |   |                            |          |                             |              |                                  |
| 25-<br>-<br>81/97// - | -           |   |                            |          |                             |              |                                  |
|                       | -           |   |                            |          |                             |              |                                  |
|                       |             |   |                            |          |                             |              |                                  |
|                       | -           |   |                            |          |                             | 0            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.4344° N | -124.24146° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





| <b>DEPTH</b> , FT   | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS               |
|---|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
|   |             | Sandy GRAVEL, trace to some silt, fine- to<br>coarse-grained sand<br>SAND, light brown, fine grained<br>4-inthick layer of clayey sandy silt at 4 ft | 3.0                        |          | Run 1                       |              | Run 1 recovery 36 in.                          |
|   |             | trace silt, contains organic debris at 8.5 ft<br>trace to some silt below 10 ft  |                            | 1.2      | Run 2                       |              | Run 2 recovery 44 in.<br>Slight odor at 8.5 ft |
|   |             | light gray below 14 ft   | 15.0                       | 0.5      | DB-166-11                   |              | Run 3 recovery 58 in.                          |
| 20-   |             | (2/8/2018)<br>Depth to groundwater not measured due to caving,<br>observed to be at least 10 ft below existing grade                                 |                            |          |                             |              |  |
|   |             |  |                            |          |                             |              |  |
| GDT 7/26/18<br>06<br>   |             |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18  |             |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORIT<br>00<br>01<br>01<br>01<br>01<br>01<br>01<br>01<br>01<br>01<br>01<br>01<br>01 |             |  |                            |          |                             | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.4343° N | 124.24133° W (WGS 84)           |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                       | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | Sandy GRAVEL, trace silt, fine- to coarse-grained<br>sand<br>SAND, gray to light brown, fine grained | - 2.5                      |          | Run 1                       |              | Run 1 recovery 34 in.            |
| 5  |             | trace gravel below 5 ft<br>(2/8/2018)<br>Practical refusal at 7 ft                                   | - 7.0                      |          | Run 2<br>DB-167-6           |              | Run 2 recovery 20 in.            |
| 10—<br>—<br>—                                      |             | Groundwater not encountered  |                            |          |                             |              |                                  |
|  |             |  |                            |          |                             |              |                                  |
| 20-  | -           |  |                            |          |                             |              |                                  |
| <br>25—  |             |  |                            |          |                             |              |                                  |
| APLATE.GDT 7/26/18                                 |             |  |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |                                  |
| ENVIRONMENTAL B                                    |             |  |                            |          |                             | 0            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43443° N | -124.24132° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT            | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS               |
|----------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -                    |             | Sandy GRAVEL, trace silt, fine- to coarse-grained<br>sand<br>SAND<br>Portland cement CONCRETE (6 in.) /<br>SAND, light brown, fine grained | 1.5<br>2.0<br>2.5          |          | Run 1                       |              | Run 1 recovery 22 in.<br>Run 2 recovery 14 in. |
| 5—<br>—<br>—         |             | trace silt, contains wood debris below 5 ft  |                            | 0.3      | Run 3                       |              | ⊻5.6 ft (2/8/2018)<br>Run 3 recovery 41 in.    |
|                      |             | trace to some silt below 10 ft<br>some silt, gray-brown below 12.5 ft  |                            | 0.9      | <br>Run 4                   |              | Run 4 recovery 60 in.                          |
| <br><br>15           |             | (2/8/2018)   | 15.0                       | 0.9      | DB-168-13                   |              |  |
| <br><br>             |             |  |                            |          |                             |              |  |
|                      |             |  |                            |          |                             |              |  |
| -                    |             |  |                            |          |                             |              |  |
|                      |             |  |                            |          |                             |              |  |
| 35—<br>35—<br>-<br>- |             |  |                            |          |                             |              |  |
|                      |             |  |                            |          |                             | )            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43419° N | -124.24117° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| ДЕРТН, FT          | GRAPHIC LOG           | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                   |
|--------------------|-----------------------|---|----------------------------|------------|-----------------------------|--------------|--|
| -<br>-<br>-<br>5-  | 0<br>0<br>0<br>0<br>0 | Sandy GRAVEL, trace to some silt, fine- to<br>coarse-grained sand<br>Portland cement CONCRETE (6 in.)<br>SAND, light brown, fine grained, contains wood<br>debris<br>contains organics below 5 ft | 2.5<br>3.5                 |            | Run 1                       | -            | Run 1 recovery 31 in.<br>⊈5.5 ft (2/8/2018)                        |
| -<br>-<br>-<br>10- |                       | trace silt, light brown-gray below 10.5 ft  |                            | 0.3        | Run 2                       |              | Run 2 recovery 43 in.<br>Slight sheen between depths of 8 to 15 ft |
| -<br>-<br>-<br>15- |                       | trace to some silt, light gray below 13 ft<br>SILT, some fine-grained sand to sandy, trace to   | 15.0                       | 0.2        | Run 3<br>DB-169-12          |              | Run 3 recovery 60 in.  |
| <br><br><br>20—    |                       | Some clay, gray         CLAY, some silt, gray         SILT, some fine-grained sand to sandy, trace to         some clay, gray   | 18.0<br>19.0<br>20.0       | 0.4<br>0.5 | DB-169-16                   |              | Run 4 recovery 28 in.  |
| <br><br>25         | -                     | (2/8/2018)  |                            |            |                             |              |  |
|                    | -                     |   |                            |            |                             |              |  |
| –<br>–<br>–<br>35– | -                     |   |                            |            |                             |              |  |
|                    | -                     |   |                            |            |                             | 0            | 1.0  |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43414° N | -124.24111° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





JOB NO. 5764-1195

FIG. 69A

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                    |
|-----------|-------------|--|----------------------------|------------|-----------------------------|--------------|---|
|           |             | Sandy GRAVEL, trace to some silt, fine- to<br>coarse-grained sand<br>SAND, light brown, fine grained<br>6-inthick silty organic layer at 4.5 ft<br>light brown-gray, contains abundant wood debris<br>below 5 ft | 2.5                        |            | Run 1                       |              | Run 1 recovery 32 in.<br>⊈4.8 ft (2/8/2018)                         |
|           |             | trace to some silt, gray-brown to gray, wood<br>debris absent below 11 ft  |                            | 0.6        | Run 2                       |              | Run 2 recovery 35 in.   |
|           |             | some silt to silty, gray, contains organics below  |                            | 1          | Run 3<br>DB-170-13          |              | Run 3 recovery 55 in.<br>Slight sheen between depths of 12 to 20 ft |
|           | -/-/        | 15 ft<br><u>CLAY, trace to some silt, gray</u><br>SAND, some silt to silty, gray, fine grained, contains<br>organics<br>(2/8/2018)   | 18.0<br>18.5<br>20.0       | 0.3<br>0.7 | Run 4                       |              | Run 4 recovery 38 in.   |
|           |             |  |                            |            |                             |              |   |
|           |             |  |                            |            |                             |              |   |
|           |             |  |                            |            |                             |              |   |
|           |             |  |                            |            | C                           | 1            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43402° N | -124.24122° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





JOB NO. 5764-1195

FIG. 70A

| <b>DEPTH</b> , FT                                  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                          | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|---|
|  |             | SAND, Igiht brown, fine grained   |                            |          | Run 1                       |              | Run 1 recovery 23 in.<br>⊻3.5 ft (2/8/2018) |
| 5—   |             | trace silt, contains wood debris below 7 ft<br>grades to light brown-gray below 8 ft    |                            | 0.8      | Run 2                       |              | Run 2 recovery 54 in.                       |
| 10—<br>—<br>—<br>—                                 |             | trace to some silt, gray below 10 ft<br>Sandy SILT, some clay, gray, fine-grained sand, | 14.0                       | 0.8      | Run 3<br>MO-171-13          |              | Run 3 recovery 60 in.                       |
| 15—<br>—<br>—<br>—                                 |             | contains wood debris<br>(2/8/2018)  | 15.0                       |          |                             |              |   |
| 20   |             |   |                            |          |                             |              |   |
| 25   |             |   |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |   |                            |          |                             |              |   |
| ONMENTAL BORING GF                                 |             |   |                            |          |                             |              |   |
|  |             |   |                            |          | (                           | 0            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43379° N | -124.24112° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                            | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -                  | 2<br>2<br>2 | Sandy GRAVEL, trace silt, fine- to coarse-grained<br>sand SAND, light brown, fine grained | - 1.5                      |          | Run 1                       |              | Run 1 recovery 32 in.<br>⊻3.8 ft (2/8/2018) |
| 5                  |             | trace silt, contains wood debris and organics below 5 ft                                  |                            | 0.7      | Run 2                       |              | Run 2 recovery 46 in.                       |
|                    |             | light gray-brown, wood debris absent below 10 ft  |                            | 0.3      |                             |              |   |
|                    |             | some silt below 14 ft<br>(2/8/2018)   | - 15.0                     | 0.1      | Run 3<br>MO-172-12          |              | Run 3 recovery 60 in.                       |
| 20-                |             |   |                            |          |                             |              |   |
| -                  |             |   |                            |          |                             |              |   |
| 25—<br>—<br>•1/07/ |             |   |                            |          |                             |              |   |
|                    |             |   |                            |          |                             |              |   |
|                    |             |   |                            |          |                             |              |   |
|                    |             |   |                            |          | (                           | )            | 1.0   |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43364° N | -124.24115° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT                         | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|-----------------------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -                                 |             | Sandy GRAVEL, some silt to silty, fine- to coarse-grained sand  | - 3.5                      |          | Run 1                       |              | Run 1 recovery 17 in.<br>⊻3.3 ft (2/8/2018)  |
|                                   |             | light brown-gray below 7.5 ft<br>trace to some silt below 10 ft |                            | 0.2      | Run 2                       |              | Run 2 recovery 23 in.  |
| 10—<br>—<br>—<br>—<br>—<br>—<br>— |             |   | - 15.0                     | 0.7      | Run 3<br>MO-173-14          |              | Steel fragment encountered at 10 ft<br>Run 3 recovery 60 in.<br>Slight sheen between depths of 14 to 15 ft |
|                                   |             | (2/8/2018)  | 15.0                       |          |                             |              |  |
| 25                                |             |   |                            |          |                             |              |  |
| -                                 |             |   |                            |          |                             |              |  |
| G GRI DATA TEMPLATE               | -           |   |                            |          |                             |              |  |
|                                   |             |   |                            |          |                             |              |  |

| Logged By: C. Smerdon      | Drilled by: Stratus (    | Drilled by: Stratus Corporation |  |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|--|
| Date Started: 2/8/18       | Coordinates: 43.43361° N | -124.24093° W (WGS 84)          |  |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |  |





Reissued for Use

| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                       | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|---------------|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -             |             | Sandy GRAVEL, trace to some silt, fine- to<br>coarse-grained sand<br>SAND, light brown, fine grained | 2.0                        |          | Run 1                       |              | Run 1 recovery 37 in.            |
| 5—<br>—<br>—  |             |  |                            | 0        | Run 2                       | -            | Run 2 recovery 50 in.            |
| 10—<br>—<br>— |             | trace to some silt, light brown-gray below 10 ft   |                            | 0        | MO-174-9                    |              | Run 3 recovery 60 in.            |
|               |             | (2/9/2018)<br>Groundwater not encountered  | - 15.0                     | 0.3      |                             | _            |                                  |
| 20            |             |  |                            |          |                             |              |                                  |
| <br>25        |             |  |                            |          |                             |              |                                  |
| 30-           |             |  |                            |          |                             |              |                                  |
|               |             |  |                            |          |                             |              |                                  |
|               |             |  |                            |          |                             | 0            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|
| Date Started: 2/9/18       | Coordinates: 43.4333° N | -124.24041° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used   |                                 |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |





| DEPTH, FT   | GRAPHIC LOG      | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-------------|------------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
|             | 9 <del>2</del> 1 | Sandy GRAVEL, some silt, fine- to coarse-grained<br>sand<br>SAND, light brown, fine grained<br>brown, contains organics below 2 ft<br>organics absent below 3 ft<br>Portland cement CONCRETE (8 in.)<br>SAND, trace silt, light brown, fine grained | 4.0<br>4.6                 | 0.4      | Run 1                       |              | ,                                |
| <br><br>10  |                  | gray, contains wood debris and organics<br>trace silt, light gray, organics and wood debris<br>absent below 9.5 ft  |                            | 0.2      | Run 2<br>MO-175-9           |              | Run 2 recovery 48 in.            |
| <br><br>15  | XX.              | some silt below 12 ft<br>Silty CLAY, some fine-grained sand, gray<br>(2/9/2018)   | - 14.0<br>- 15.0           | 0.8      | Run 3                       |              | Run 3 recovery 60 in.            |
|             | -                |   |                            |          |                             |              |                                  |
| <br>25      | -                |   |                            |          |                             |              |                                  |
| <br>30      | -                |   |                            |          |                             |              |                                  |
| <br>35<br>- |                  |   |                            |          |                             |              |                                  |
|             |                  |   |                            |          |                             | 0            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus     | Drilled by: Stratus Corporation |  |  |  |
|----------------------------|-------------------------|---------------------------------|--|--|--|
| Date Started: 2/9/18       | Coordinates: 43.4337° N | -124.24023° W (WGS 84)          |  |  |  |
| Drilling Method: Direct Pu | ush Probe               | Hammer Type: Not Used           |  |  |  |
| Equipment: Geoprob         | Weight:                 |                                 |  |  |  |
| Hole Diameter: 3 in.       | Drop:                   |                                 |  |  |  |
| Note: See Legend for Expla | Energy Ratio:           |                                 |  |  |  |





| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                    | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-----------|-------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -         |             | Sandy GRAVEL, trace to some silt, fine- to<br>coarse-grained sand SAND, light brown, fine grained | - 1.5                      |          | Run 1                       |              | Run 1 recovery 36 in.            |
| 5         |             |   |                            | 0.5      | -                           |              | ⊻4.3 ft (2/9/2018)               |
|           |             | trace silt, light gray-brown, contains organics below 8.5 ft                                      |                            |          | Run 2<br>SH-176-10          | 3            | Run 2 recovery 48 in.            |
| -         |             | some silt, gray below 13 ft   |                            | 0.6      | Run 3                       |              | Run 3 recovery 60 in.            |
|           |             | (2/9/2018)  | - 15.0                     | 0        |                             |              |                                  |
| 20-       |             |   |                            |          |                             |              |                                  |
|           |             |   |                            |          |                             |              |                                  |
| 25        | -           |   |                            |          |                             |              |                                  |
| 01/07//   | -           |   |                            |          |                             |              |                                  |
|           |             |   |                            |          |                             |              |                                  |
|           |             |   |                            |          |                             |              |                                  |
|           |             |   |                            |          |                             |              |                                  |
| 40-       |             |   |                            |          |                             | 0            | 1.0                              |

| Logged By: C. Smerdon      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/9/18       | Coordinates: 43.43433° N | -124.24063° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS            |
|--|--------------------|---|----------------------------|----------|-----------------------------|--------------|---|
|  |                    | Portland cement CONCRETE (3 in.)/<br>SAND, trace to some gravel, trace silt, light brown to<br>gray, fine grained<br>gravel absent below 2 ft | 0.2                        | 0        | Run 1                       |              | ⊻1.7 ft (2/9/2018)<br>Run 1 recovery 34 in. |
|  | <u>5</u>           | 2-inthick layer of sandy gravel at 5 ft<br>12-inthick layer of sandy gravel at 6 ft   |                            | 0        | SH-177-5                    | X            | Slight sheen and odor at 5 ft               |
|  | <u></u>            |   |                            |          | Run 2                       |              | Run 2 recovery 45 in.                       |
|  |                    |   |                            | 0        | Run 3                       |              | Run 3 recovery 60 in.                       |
| <br>15   |                    | silty below 14.5 ft<br>(2/12/2018)  | 15.0                       | 0        |                             |              |   |
|  |                    |   |                            |          |                             |              |   |
| 20—  |                    |   |                            |          |                             |              |   |
| 25   |                    |   |                            |          |                             |              |   |
| )T 7/26/18<br>                                     |                    |   |                            |          |                             |              |   |
| A TEMPLATE.GC<br>30<br>1 1 2                       |                    |   |                            |          |                             |              |   |
| ORING GRI DAT                                      |                    |   |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |                    |   |                            |          |                             |              |   |
| Zu40   |                    |   |                            |          |                             | 0            | 1.0   |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/9/18       | Coordinates: 43.43459° N | -124.24055° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                     | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | SAND, brown, fine grained  |                            |          | Run 1                       |              | Run 1 recovery 30 in.            |
| 5—<br>—<br>—<br>—                                  |             | contains gravel and concrete fragments below 6 ft<br>(2/12/2018)<br>Refusal on obstruction at 7 ft | • 7.0                      | 0        | Run 2                       |              | Run 2 recovery 22 in.            |
| 10—<br>—<br>—<br>—                                 |             | Groundwater not encountered  |                            |          |                             |              |                                  |
| <br>15—  |             |  |                            |          |                             |              |                                  |
| 20   |             |  |                            |          |                             |              |                                  |
| <br>25<br>   |             |  |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |                                  |
|  |             |  |                            |          |                             |              |                                  |
|  |             |  |                            |          | (                           | )            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43465° N | -124.23872° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | SAND, brown, fine grained                                      |                            | 0        | Run 1                       |              | Run 1 recovery 31 in.            |
| 5  |             | (2/12/2018)<br>Refusal on obstruction at 7 ft                  | - 7.0                      | 0        | Run 2                       |              | Run 2 recovery 18 in.            |
| 10—<br>—<br>—                                      |             | Groundwater not encountered                                    |                            |          |                             |              |                                  |
|  | -           |  |                            |          |                             |              |                                  |
| 20   |             |  |                            |          |                             |              |                                  |
| <br>25—  | -           |  |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |                                  |
| BORING GRI DATA TE<br>                             |             |  |                            |          |                             |              |                                  |
| - ENVIRONMENTAL                                    |             |  |                            |          |                             | 0            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43463° N | -124.23869° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|-----------|-------------|--|----------------------------|------------|-----------------------------|--------------|--|
| -         |             | ר <u>Portland cement CONCRETE (5.5 in.)</u>                    | 0.5                        |            | Run 1                       |              | Run 1 recovery 22 in.  |
| 5         |             | gray below 5 ft<br>contains wood debris below 6 ft             |                            | 0<br>20    | Run 2                       |              | ∑5.8 ft (2/12/2018)<br>Moderate odor between depths of 6 to 10 ft<br>Run 2 recovery 27 in. |
|           |             | wood debris absent below 9 ft                                  |                            | 2.8<br>0.5 | SL-180-10                   |              |  |
|           |             | (2/12/2018)  | 15.0                       | 0.2        | Run 3<br>SL-180-15          |              | Run 3 recovery 41 in.  |
| -         |             |  |                            |            |                             |              |  |
| 20        |             |  |                            |            |                             |              |  |
| 25—<br>   |             |  |                            |            |                             |              |  |
| 30        |             |  |                            |            |                             |              |  |
|           |             |  |                            |            |                             |              |  |
|           |             |  |                            |            |                             |              |  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43464° N | -124.23874° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -  |             | Portland cement CONCRETE (5.5 in.) SAND, brown, fine grained  | 0.5                        |          | Run 1                       |              | Run 1 recovery 32 in.            |
| 5-<br>-<br>-                                       | -           |   |                            | 0.4      | Run 2                       |              | Run 2 recovery 41 in.            |
| -<br>10-<br>-                                      | -<br>-<br>- | gray below 10 ft<br>dark gray below 12.5 ft   |                            | 0.4      | Run 3                       |              | Run 3 recovery 60 in.            |
| -<br>-<br>15-<br>-                                 |             | (2/12/2018)   | 15.0                       | 0.1      | SL-181-15                   |              |                                  |
|  | -           | Depth to groundwater not measured due to caving,<br>observed to be at least 5 ft below existing grade |                            |          |                             |              |                                  |
|  | -           |   |                            |          |                             |              |                                  |
| -  | -           |   |                            |          |                             |              |                                  |
| ATA TEMPLATE.GDT                                   | -           |   |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 | -           |   |                            |          |                             |              |                                  |
| -<br>ENVIRONMEL<br>-<br>40-                        |             |   |                            |          |                             |              | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43458° N | -124.23873° W (WGS 84)          |  |  |
| Drilling Method: Direct Pr | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| ДЕРТН, FT  | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available       | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS  |
|--|--------------------|--|----------------------------|----------|-----------------------------|--------------|---|
| -  |                    | <u>Portland cement CONCRETE (2.5 in.)</u> / SAND, gray, fine grained | 0.2                        |          | Run 1                       |              | <ul> <li>✓0.7 ft (2/12/2018)</li> <li>Moderate to heavy sheen, moderate odor throughout</li> <li>Run 1 recovery 27 in.</li> </ul> |
| 5—<br>—<br>—                                       |                    | (2/12/2018)<br>Refusal on obstruction at 5 ft                        | 5.0                        | 0.3      | NL-182-5                    |              |   |
|  |                    |  |                            |          |                             |              |   |
| <br>15<br>   |                    |  |                            |          |                             |              |   |
| <br>20   |                    |  |                            |          |                             |              |   |
| <br>25—  |                    |  |                            |          |                             |              |   |
| IPLATE.GDT 7/26/18                                 |                    |  |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |                    |  |                            |          |                             |              |   |
| ENVIRONMENTAL B<br>06<br>1 1 1 1                   |                    |  |                            |          |                             | )            | 1.0   |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43477° N | -124.2387° W (WGS 84)           |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| <b>DEPTH</b> , FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
|                   |             | <u>ר Portland cement CONCRETE (6 in.)</u> /<br>SAND, brown, fine grained                              | 0.5                        |          | Run 1                       |              | Run 1 recovery 10 in.            |
| 5—<br>—<br>—      |             | gray below 8 ft   |                            | 0.3      | Run 2                       |              | Run 2 recovery 32 in.            |
|                   |             |   |                            | 0.3      | Run 3                       | -            | Run 3 recovery 60 in.            |
| <br>15            |             | dark gray below 14 ft<br>(2/12/2018)<br>Depth to groundwater not measured due to caving,              | 15.0                       | 0.1      | NL-183-15                   |              |                                  |
| _<br><br>20—<br>  |             | Depth to groundwater not measured due to caving,<br>observed to be at least 5 ft below existing grade |                            |          |                             |              |                                  |
| _<br>_<br>25—     |             |   |                            |          |                             |              |                                  |
|                   |             |   |                            |          |                             |              |                                  |
| 30                |             |   |                            |          |                             |              |                                  |
| 35—<br>—<br>—     |             |   |                            |          |                             |              |                                  |
|                   |             |   |                            |          |                             | 0            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43476° N | -124.23865° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available     | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
|  | <u>5</u>    | GRAVEL, some silt and fine-grained sand/-SAND, brown, fine grained | 0.5                        | 1.4      | Run 1                       |              | Run 1 recovery 28 in.            |
|  |             | Refusal on obstruction at 4 ft<br>Groundwater not encountered      |                            |          |                             |              |                                  |
|  |             |  |                            |          |                             |              |                                  |
|  |             |  |                            |          |                             |              |                                  |
|  |             |  |                            |          |                             |              |                                  |
|  |             |  |                            |          |                             |              |                                  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |                                  |
| =  |             |  |                            |          |                             | )            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43428° N | -124.23917° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |



JULY 2018



Reissued for Use

| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|---------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
|               | <u>5</u>    | Sandy GRAVEL, trace to some silt, fine- to //coarse-grained sand // SAND, brown, fine grained         | 0.5                        |          | Run 1                       |              | ⊻0.5 ft (2/12/2018)<br>Run 1 recovery 35 in. |
| 5             |             |   |                            | 3.8      | MS-185-4                    |              | Run 2 recovery 30 in.                        |
| <br>10—       | <u>, p</u>  | 6-inthick layer of gravelly sand with some silt at<br>8.5 ft<br>gray, contains wood debris below 9 ft |                            | 1.5      |                             |              |  |
|               |             | trace to some silt, dark gray below 13 ft<br>(2/12/2018)  | - 15.0                     | 2.1      | Run 3                       |              | Run 3 recovery 60 in.                        |
|               |             |   |                            |          |                             |              |  |
| -             |             |   |                            |          |                             |              |  |
| 25—<br>—<br>— |             |   |                            |          |                             |              |  |
| 30—<br>       |             |   |                            |          |                             |              |  |
|               |             |   |                            |          |                             |              |  |
|               |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43421° N | -124.23917° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -  | ন্দ্র       | Silty GRAVEL, some fine-grained sand, brown/-                  | 0.5                        |          | Run 1                       |              | Run 1 recovery 34 in.<br>⊈3.8 ft (2/12/2018) |
| 5—<br>—<br>—<br>—                                  |             | lisht source to be a C 5 A                                     |                            | 1.3      | Run 2                       |              | Run 2 recovery 44 in.                        |
| 10—<br>—<br>—                                      |             | light gray below 9.5 ft<br>(2/12/2018)                         | 10.0                       | 1        |                             |              |  |
| 15—<br>—<br>—                                      |             |  |                            |          |                             |              |  |
| 20—<br>  |             |  |                            |          |                             |              |  |
|  |             |  |                            |          |                             |              |  |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |  |
|  |             |  |                            |          |                             |              |  |
|  |             |  |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43435° N | -124.23838° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





JOB NO. 5764-1195

| <b>DEPTH</b> , FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-------------------|-------------|--|----------------------------|------------|-----------------------------|--------------|----------------------------------|
| -                 | .0(         | Asphalt concrete PAVEMENT (6 in.) over crushed<br>rock BASE COURSE (6 in.) / -<br>Sandy GRAVEL, trace to some silt, fine-grained /-<br>sand (Fill) / SAND, brown, fine grained, contains wood<br>fragments | 1.0<br>2.0                 |            | Run 1                       |              | Run 1 recovery 42 in.            |
| 5—                |             | gray below 8 ft  |                            | 1.5        | Run 2                       |              | Run 2 recovery 52 in.            |
| 10—<br>—<br>—     |             |  |                            | 2.2<br>2.4 | BP-187-11                   |              | Run 3 recovery 60 in.            |
| 15—<br>           |             | (2/12/2018)<br>Depth to groundwater not measured due to caving,<br>observed to be at least 5 ft below existing grade   | 15.0                       | 0.3        |                             |              |                                  |
| <br>20—<br>       |             |  |                            |            |                             |              |                                  |
| <br>25            |             |  |                            |            |                             |              |                                  |
| <br>30—           |             |  |                            |            |                             |              |                                  |
|                   |             |  |                            |            |                             |              |                                  |
|                   |             |  |                            |            |                             | )            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/12/18      | Coordinates: 43.43547° N | -124.23909° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |



JULY 2018



| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|---------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -             |             | SAND, light brown to gray, grass at ground surface             |                            | 0        | Run 1                       |              | Run 1 recovery 32 in.                        |
| 5             |             | organics and wood debris absent below 7.5 ft                   |                            | 0        | JP-188-6<br>Run 2           |              | ⊈7.5 ft (2/13/2018)<br>Run 2 recovery 60 in. |
| 10            |             | (2/13/2018)  | - 10.0                     |          |                             |              |  |
| 15—<br>—<br>— |             |  |                            |          |                             |              |  |
| 20—<br>—<br>— |             |  |                            |          |                             |              |  |
| 25—<br>       |             |  |                            |          |                             |              |  |
|               |             |  |                            |          |                             |              |  |
|               |             |  |                            |          |                             |              |  |
|               |             |  |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43105° N | -124.23925° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |



JULY 2018



Reissued for Use

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                      | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS   |
|-----------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
|           |             | SAND, brown, fine grained, grass at ground surface                                  |                            |          | Run 1                       |              | Run 1 recovery 32 in.  |
| 5         |             | dark gray, wood debris and organics absent<br>below 7 ft<br>light gray below 8.5 ft |                            | 0        | Run 2<br>JP-189-7           |              | <sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup><br><sup>,</sup> |
|           |             | (2/13/2018)   | - 10.0                     |          | -                           |              |  |
|           |             |   |                            |          |                             |              |  |
| 20        |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             |              |  |
| 35<br>    |             |   |                            |          |                             |              |  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43142° N | -124.23908° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available              | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
|  |             | SAND, brown, fine grainedcontains organics and wood debris below 4.5 ft     |                            |          | Run 1                       |              | Run 1 recovery 35 in.                        |
| 5  |             | dark gray, abundant organics below 6 ft<br>gray, organics absent below 8 ft |                            | 0        | Run 2<br>JP-190-7           | ×            | ∑7.0 ft (2/13/2018)<br>Run 2 recovery 48 in. |
|  |             | (2/13/2018)   | - 10.0                     | 0        |                             |              |  |
| <br>15—  |             |   |                            |          |                             |              |  |
| 20-  |             |   |                            |          |                             |              |  |
| _<br><br>25—<br>   |             |   |                            |          |                             |              |  |
| AIE:601 //2018<br>   |             |   |                            |          |                             |              |  |
| NG GRIDALA LEMPL<br>32 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |             |   |                            |          |                             |              |  |
|  |             |   |                            |          |                             |              |  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43139° N | -124.23854° W (WGS 84)          |  |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                         |  |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |  |





| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available | ELEVATION, FT<br>DEPTH, FT | PID, PPM   | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|---------------|-------------|--|----------------------------|------------|-----------------------------|--------------|----------------------------------|
| -             |             | SAND, brown, fine grained, contains organics                   |                            |            | Run 1                       |              | Run 1 recovery 39 in.            |
| 5—            |             | gray below 8 ft  |                            | 0.6<br>0.6 | Run 2<br>JP-191-8           |              | <sup>I</sup>                     |
| 10—<br>—<br>— |             |  |                            | 0.8        | Run 3                       |              | Run 3 recovery 52 in.            |
|               |             | (2/13/2018)  | - 15.0                     | 2.1        |                             |              |                                  |
| 20            |             |  |                            |            |                             |              |                                  |
| 25—           |             |  |                            |            |                             |              |                                  |
|               |             |  |                            |            |                             |              |                                  |
| 35—           |             |  |                            |            |                             |              |                                  |
| 40-           |             |  |                            |            |                             | 0            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43274° N | -124.24007° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                         |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT    | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available         | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                 |
|--------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -            | -           | SAND, brown, fine grained, contains organics                           |                            |          | Run 1                       |              | ⊻1.5 ft (2/13/2018)<br>Run 1 recovery 39 in.                     |
| 5—<br>—<br>— |             |  |                            | 4.2<br>4 | Run 2<br>TS-192-8           |              | Slight odor between depths of 6 to 9 ft<br>Run 2 recovery 42 in. |
|              |             | gray below 10 ft<br>6-inthick layer of silt with trace clay at 12.5 ft |                            | 1.3      | Run 3                       |              | Run 3 recovery 44 in.  |
|              |             | (2/13/2018)  | - 15.0                     | 0.5      |                             |              |  |
| 20           | -           |  |                            |          |                             |              |  |
| <br>25—      | -           |  |                            |          |                             |              |  |
| 30-          | -           |  |                            |          |                             |              |  |
|              |             |  |                            |          |                             |              |  |
|              | -           |  |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky |                            |                       | Drilled by: Stratus Corporation |                        |  |  |
|-----------------------|----------------------------|-----------------------|---------------------------------|------------------------|--|--|
|                       | Date Started: 2/13/18      | Coordi                | nates:43.43581° N               | -124.24138° W (WGS 84) |  |  |
|                       | Drilling Method: Direct Pu | Hammer Type: Not Used |                                 |                        |  |  |
|                       | Equipment: Geoprob         | Weight:               |                                 |                        |  |  |
|                       | Hole Diameter: 3 in.       | Drop:                 |                                 |                        |  |  |
|                       | Note: See Legend for Expla | Energy Ratio:         |                                 |                        |  |  |





| DEPTH, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available       | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                   |
|--------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -                  |             | SAND, brown, fine grained, contains roots, organics, and wood debris |                            |          | Run 1                       |              | ⊻1.5 ft (2/13/2018)<br>Run 1 recovery 25 in.                       |
| 5—<br>—<br>—       |             | organics absent below 5 ft<br>gray below 6 ft                        |                            | 1.5      | Run 2                       |              | Run 2 recovery 60 in.  |
| 10—<br>            |             | 6-inthick layer of silt with trace clay at 12.5 ft                   |                            | 1        | Run 3                       |              | Slight odor between depths of 10 to 15 ft<br>Run 3 recovery 60 in. |
|                    |             | dark gray below 13 ft<br>(2/13/2018)                                 | 15.0                       | 1        | TS-193-15                   |              |  |
| <br>20—            |             |  |                            |          |                             |              |  |
| <br>               |             |  |                            |          |                             |              |  |
|                    |             |  |                            |          |                             |              |  |
|                    |             |  |                            |          |                             |              |  |
| 35—<br>—<br>—<br>— |             |  |                            |          |                             |              |  |
| 40-                |             |  |                            |          | (                           | )            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratus        | Drilled by: Stratus Corporation |  |  |
|----------------------------|----------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43582° N   | -124.24134° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used      |                                 |  |  |
| Equipment: Geoprob         | Equipment: Geoprobe 7822DT |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                      |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:              |                                 |  |  |





| DEPTH, FT          | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--------------------|-------------|--|----------------------------|----------|-----------------------------|--------------|--|
| -                  |             | SAND, brown, fine grained, contains organics<br>organics absent below 1 ft       |                            |          | Run 1                       |              | ⊈2.0 ft (2/13/2018)<br>Run 1 recovery 36 in. |
| 5                  |             |  |                            | 1        | Run 2                       |              | Run 2 recovery 44 in.                        |
| 10—<br>—<br>—      |             | gray below 11 ft<br>3-inthick layer of silt with trace clay and sand at<br>13 ft |                            | 1.6      | Run 3<br>TS-194-13          |              | Run 3 recovery 47 in.                        |
| 15—<br>—<br>—      |             | (2/13/2018)  | 15.0                       | 1        |                             |              |  |
| 20                 |             |  |                            |          |                             |              |  |
| 25—<br>            |             |  |                            |          |                             |              |  |
|                    |             |  |                            |          |                             |              |  |
| AL BORING GRI DATA |             |  |                            |          |                             |              |  |
|                    |             |  |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky |                            |                       | Drilled by: Stratus Corporation |                        |  |  |
|-----------------------|----------------------------|-----------------------|---------------------------------|------------------------|--|--|
|                       | Date Started: 2/13/18      | Coordi                | nates:43.43578° N               | -124.24126° W (WGS 84) |  |  |
|                       | Drilling Method: Direct Pu | Hammer Type: Not Used |                                 |                        |  |  |
|                       | Equipment: Geoprob         | Weight:               |                                 |                        |  |  |
|                       | Hole Diameter: 3 in.       | Drop:                 |                                 |                        |  |  |
|                       | Note: See Legend for Expla | Energy Ratio:         |                                 |                        |  |  |





| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available                                | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|---------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -             |             | SAND, brown, fine grained, contains organics<br>organics absent below 1 ft                    |                            |          | Run 1                       |              | ⊻0.5 ft (2/13/2018)<br>Run 1 recovery 32 in. |
| 5—            |             |   |                            | 0.5      |                             | -            |  |
|               |             | contains wood debris below 7.5 ft<br>dark gray, wood debris absent below 8.5 ft               |                            | 1.6      | Run 2                       |              | Run 2 recovery 32 in.<br>Slight odor at 9 ft |
| 10—<br>—<br>— |             | 6-inthick layer of silt with some clay to clayey and trace sand, contains organics at 12.5 ft |                            | 1.8      | TS-195-11                   |              | Run 3 recovery 60 in.                        |
| <br>15—       |             | (2/13/2018)   | - 15.0                     | 1.1      |                             | -            |  |
|               |             |   |                            |          |                             |              |  |
| 20            |             |   |                            |          |                             |              |  |
| 25            |             |   |                            |          |                             |              |  |
| 01/07/1       |             |   |                            |          |                             |              |  |
| 30-<br>       |             |   |                            |          |                             |              |  |
|               |             |   |                            |          |                             |              |  |
|               |             |   |                            |          |                             |              |  |
| 40-           |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43576° N | -124.24134° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT                      | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|--------------------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -                              |             | Asphalt concrete PAVEMENT (6 in.) over crushed<br>rock BASE COURSE (18 in.)<br>SAND, brown, fine grained, contains organics | - 2.0                      |          | Run 1                       |              | Run 1 recovery 42 in.<br>⊻3.2 ft (2/13/2018) |
| 5                              | -           | gray below 5.5 ft   |                            | 3.4      |                             |              | - 5.2 it (2/15/2010)                         |
|                                |             |   |                            |          | Run 2<br>CS-196-8           | 3            | Run 2 recovery 41 in.                        |
| -                              |             | dark gray below 10.5 ft<br>8-inthick layer of clayey silt at 13 ft  |                            | 0.3      | Run 3                       |              | Run 3 recovery 43 in.                        |
|                                |             | (2/13/2018)   | - 15.0                     | 0.8      |                             |              |  |
| -<br>-<br>20-                  | -           |   |                            |          |                             |              |  |
| -                              |             |   |                            |          |                             |              |  |
| 25-                            | -           |   |                            |          |                             |              |  |
|                                | -           |   |                            |          |                             |              |  |
|                                |             |   |                            |          |                             |              |  |
| 2017<br>35<br>-<br>-<br>-<br>- |             |   |                            |          |                             |              |  |
|                                |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratu       | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43584° N | I -124.2417° W (WGS 84)         |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-----------|-------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
| -         | ٥<br>•<br>^ | Asphalt concrete PAVEMENT (6 in.) over crushed<br>rock BASE COURSE (12 in.)<br>SAND, brown, fine grained, contains organics | 1.5                        |          | Run 1                       |              | Run 1 recovery 37 in.            |
| 5—        |             | gray below 5.5 ft   |                            | 0.5      |                             |              |                                  |
|           |             | contains wood debris below 8 ft<br>wood debris absent below 9 ft  |                            |          | Run 2<br>CS-197-7           |              | Run 2 recovery 43 in.            |
|           | -<br>-<br>  | 6-inthick layer of clayey silt at 13 ft   |                            | 0        | Run 3                       |              | Run 3 recovery 60 in.            |
| <br>15—   |             | (2/13/2018)<br>Depth to groundwater not measured due to caving,   | 15.0                       |          |                             |              |                                  |
| 20-       | -           | Depth to groundwater not measured due to caving,<br>observed to be at least 2 ft below existing grade                       |                            |          |                             |              |                                  |
| -         | -           |   |                            |          |                             |              |                                  |
| 25        | -           |   |                            |          |                             |              |                                  |
|           | -           |   |                            |          |                             |              |                                  |
|           |             |   |                            |          |                             |              |                                  |
|           |             |   |                            |          |                             |              |                                  |
|           |             |   |                            |          |                             |              |                                  |
| 40-       |             |   |                            |          |                             | 0            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43593° N | -124.24172° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |



JULY 2018



Reissued for Use

| <b>DEPTH</b> , FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|-------------------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -                 | •0°         | Asphalt concrete PAVEMENT (6 in.) over crushed<br>rock BASE COURSE (15 in.)<br>SAND, brown, fine grained<br>1-inthick layer of gravel at 3 ft | - 1.7                      |          | Run 1                       |              | ⊈2.1 ft (2/13/2018)<br>Run 1 recovery 35 in. |
| 5<br><br>         |             | gray below 8 ft   |                            | 1.5      | Run 2                       |              | Run 2 recovery 39 in.                        |
| 10<br>            |             | 6-inthick layer of clayey silt at 13 ft   |                            | 1.4      | CS-198-9                    |              | Run 3 recovery 37 in.                        |
| <br>15—           |             | (2/13/2018)   | - 15.0                     | 1.3      |                             |              |  |
| 20-               |             |   |                            |          |                             |              |  |
| <br>25—           |             |   |                            |          |                             |              |  |
| 30-               |             |   |                            |          |                             |              |  |
|                   |             |   |                            |          |                             |              |  |
|                   |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/13/18      | Coordinates: 43.43585° N | -124.24187° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





| DEPTH, FT | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|-----------|--------------------|---|----------------------------|----------|-----------------------------|--------------|----------------------------------|
|           |                    | Asphalt concrete PAVEMENT (3 in.) SAND, brown, fine grained   | 0.3                        |          | Run 1                       |              | Run 1 recovery 26 in.            |
| 5—<br>_   |                    |   |                            | 0.7      | 1                           |              |                                  |
| _         |                    | gray below 7.5 ft<br>dark gray at 9.5 ft  |                            |          | Run 2                       |              | Run 2 recovery 40 in.            |
| 10—<br>—  |                    | uark gray at 9.5 it   | 10.0                       | 1.2      | DB-199-11                   |              |                                  |
| _         |                    | Clayey SILT, gray to dark brown   | 12.0<br>13.5               |          | Run 3                       |              | Run 3 recovery 34 in.            |
| 15—       |                    | (2/14/2018)<br>Depth to groundwater not measured due to caving.                                       | 15.0                       | 1        |                             |              |                                  |
| _         |                    | Depth to groundwater not measured due to caving,<br>observed to be at least 3 ft below existing grade |                            |          |                             |              |                                  |
| 20—       |                    |   |                            |          |                             |              |                                  |
| _         |                    |   |                            |          |                             |              |                                  |
| 25—<br>   |                    |   |                            |          |                             |              |                                  |
| <br>30—   |                    |   |                            |          |                             |              |                                  |
|           |                    |   |                            |          |                             |              |                                  |
|           |                    |   |                            |          |                             |              |                                  |
|           |                    |   |                            |          |                             |              |                                  |
|           |                    |   |                            |          |                             | )            | 1.0                              |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/14/18      | Coordinates: 43.43507° N | -124.24255° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |





Reissued for Use

ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18

| DEPTH, FT     | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM  | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                            |
|---------------|--------------------|--|----------------------------|-----------|-----------------------------|--------------|---|
| -             |                    | ר Portland cement CONCRETE (4 in.)   | 0.3                        |           | Run 1                       |              | Run 1 recovery 33 in.                                       |
| 5             |                    | dark brown below 4.5 ft<br>gray below 6 ft   |                            | 1.7       |                             |              | Heavy odor and moderate sheen between depths of 6 to 9.5 ft |
| <br><br>10—   |                    |  |                            | 13<br>1.2 | Run 2<br>BP-200-8           |              | Run 2 recovery 32 in.                                       |
| -             |                    | 6-inthick layer of silt with some clay to clayey and trace sand  |                            | 0.9       | Run 3<br>BP-200-13          |              | Run 3 recovery 30 in.                                       |
| 15—<br>—<br>— |                    | (2/14/2018)<br>Depth to groundwater not measured due to caving,<br>observed to be at least 3 ft below existing grade | 15.0                       |           | -                           |              |   |
| <br>20        | -                  |  |                            |           |                             |              |   |
| <br>25—       |                    |  |                            |           |                             |              |   |
| -             | -                  |  |                            |           |                             |              |   |
| 30—<br>—<br>— |                    |  |                            |           |                             |              |   |
| <br>35<br>-   |                    |  |                            |           |                             |              |   |
|               |                    |  |                            |           |                             | )            | 1.0   |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|--|
| Date Started: 2/14/18      | Coordinates: 43.43549° N | -124.23949° W (WGS 84)          |  |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |  |



JULY 2018



Reissued for Use

| DEPTH, FT  | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available       | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                                    |
|--|-------------|--|----------------------------|----------|-----------------------------|--------------|---|
|  |             | SAND, brown, fine grainedcontains possible asbestos fibers at 2.5 ft |                            |          | Run 1                       |              | Run 1 recovery 30 in.<br>Sample not opened due to possible asbestos |
| 5  |             | (2/14/2018)<br>Groundwater not encountered                           | 5.0                        |          |                             |              |   |
| 10—<br>—<br>—                                      | -           |  |                            |          |                             |              |   |
|  | -           |  |                            |          |                             |              |   |
| 20-  | -           |  |                            |          |                             |              |   |
| -<br>25-<br>-                                      | -           |  |                            |          |                             |              |   |
| EMPLATE.GDT 7/26/18                                | -           |  |                            |          |                             |              |   |
| ENVIRONMENTAL BORING GRI DATA TEMPLATE.GDT 7/26/18 |             |  |                            |          |                             |              |   |
| - ENVIRONMENTAL<br>                                |             |  |                            |          | (                           | )            | 1.0   |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Drilled by: Stratus Corporation |  |  |
|----------------------------|--------------------------|---------------------------------|--|--|
| Date Started: 2/14/18      | Coordinates: 43.43533° N | -124.23967° W (WGS 84)          |  |  |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                                 |  |  |
| Equipment: Geoprob         | Weight:                  |                                 |  |  |
| Hole Diameter: 3 in.       | Drop:                    |                                 |  |  |
| Note: See Legend for Expla | Energy Ratio:            |                                 |  |  |



JULY 2018



Reissued for Use

| DEPTH, FT | <b>GRAPHIC LOG</b> | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS                          |
|-----------|--------------------|---|----------------------------|----------|-----------------------------|--------------|---|
| -         |                    | SAND, brown, fine grained, contains organics, brick<br>fragments, gravel, and scattered clay clods<br>(Possible Fill) |                            |          | Run 1                       |              | <sup>IZ</sup> 2.0 ft (2/14/2018)<br>Run 1 recovery 23 in. |
| 5—<br>—   |                    | fragments absent below 5 ft   |                            | 0        | BP-202-4                    |              | Run 2 recovery 39 in.                                     |
| <br>10    |                    | gray below 9 ft<br>(2/14/2018)  | 10.0                       | 0.5      | BP-202-10                   |              |   |
|           |                    |   |                            |          |                             |              |   |
| -         |                    |   |                            |          |                             |              |   |
| 20—       |                    |   |                            |          |                             |              |   |
| 25        |                    |   |                            |          |                             |              |   |
|           |                    |   |                            |          |                             |              |   |
|           |                    |   |                            |          |                             |              |   |
| 35—<br>   |                    |   |                            |          |                             |              |   |
| 40        |                    |   |                            |          |                             | 0            | 1.0   |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Corporation            |
|----------------------------|--------------------------|------------------------|
| Date Started: 2/14/18      | Coordinates: 43.43531° N | -124.23965° W (WGS 84) |
| Drilling Method: Direct Pu | Hammer Type: Not Used    |                        |
| Equipment: Geoprob         | e 7822DT                 | Weight:                |
| Hole Diameter: 3 in.       | Drop:                    |                        |
| Note: See Legend for Expla | Energy Ratio:            |                        |





Reissued for Use

| DEPTH, FT     | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available   | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS |
|---------------|-------------|--|----------------------------|----------|-----------------------------|--------------|----------------------------------|
|               |             | Portland cement CONCRETE (10.5 in.) SAND, brown, fine grained, contains organics                                     | - 0.8                      |          | Run 1                       |              | Run 1 recovery 34 in.            |
| 5             |             | up to trace gravel below 6 ft<br>gray below 7 ft   |                            | 1.3      | Run 2                       |              | Run 2 recovery 40 in.            |
|               |             | (2/14/2018)<br>Depth to groundwater not measured due to caving,<br>observed to be at least 4 ft below existing grade | - 10.0                     | 0.2      | FO-203-9                    | X            |                                  |
|               | -           |  |                            |          |                             |              |                                  |
| <br>20—       | -           |  |                            |          |                             |              |                                  |
| -<br>-<br>25- | -           |  |                            |          |                             |              |                                  |
|               | -           |  |                            |          |                             |              |                                  |
|               | -           |  |                            |          |                             |              |                                  |
| 35            | -           |  |                            |          |                             |              |                                  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Corporation            |
|----------------------------|--------------------------|------------------------|
| Date Started: 2/14/18      | Coordinates: 43.43616° N | -124.23934° W (WGS 84) |
| Drilling Method: Direct Pu | ush Probe                | Hammer Type: Not Used  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                |
| Hole Diameter: 3 in.       | Drop:                    |                        |
| Note: See Legend for Expla | Energy Ratio:            |                        |





Reissued for Use

| DEPTH, FT | GRAPHIC LOG | CLASSIFICATION OF MATERIAL<br>Surface Elevation: Not Available  | ELEVATION, FT<br>DEPTH, FT | PID, PPM | SAMPLE NO.<br>AND DEPTH, FT | INSTALLATION | COMMENTS AND<br>ADDITIONAL TESTS             |
|-----------|-------------|---|----------------------------|----------|-----------------------------|--------------|--|
| -         |             | SAND, brown, fine grained, contains wood debris and organics    |                            |          | Run 1                       |              | Run 1 recovery 41 in.<br>⊻3.0 ft (2/14/2018) |
| 5         |             | organics and wood debris absent below 4.5 ft<br>gray below 6 ft |                            |          | Run 2                       |              | Run 2 recovery 42 in.                        |
|           |             | (2/14/2018)   | - 10.0                     | 1.4      |                             | -            |  |
|           |             |   |                            |          |                             |              |  |
| 20-       |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             |              |  |
| -         |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             |              |  |
|           |             |   |                            |          |                             | 0            | 1.0  |

| Logged By: N. Utevsky      | Drilled by: Stratus      | Corporation            |
|----------------------------|--------------------------|------------------------|
| Date Started: 2/14/18      | Coordinates: 43.43631° N | -124.24091° W (WGS 84) |
| Drilling Method: Direct Pu | ish Probe                | Hammer Type: Not Used  |
| Equipment: Geoprob         | e 7822DT                 | Weight:                |
| Hole Diameter: 3 in.       | Drop:                    |                        |
| Note: See Legend for Expla | Energy Ratio:            |                        |





APPENDIX B Analytical Laboratory Reports



# ANALYTICAL REPORT

February 07, 2018



## **GRI** - Beaverton, OR

Sample Delivery Group: Samples Received: Project Number: Description:

L967603 02/03/2018 5764-1195 5764-1195

Report To:

Nora Utevsky 9750 SW Nimbus Avenue Beaverton, OR 97008

Entire Report Reviewed By: Buan Ford

Brian Ford Technical Service Representative

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

Document No: J1-680-RGL-GRI-00001-00 Revision: 1 12065 Lebanon Rd Mount Juliet. TN 37122 615-758-5858 800-767-5859

Reissued for Use www.esclabsciences.com

## TABLE OF CONTENTS

2

|   |    | - ,             |
|---|----|-----------------|
| Cp: Cover Page  | 1  | 1               |
| Tc: Table of Contents   | 2  | Ср              |
| Ss: Sample Summary  | 3  | <sup>2</sup> Tc |
| Cn: Case Narrative  | 5  |                 |
| Sr: Sample Results  | 6  | Ss              |
| BP-102-12 L967603-01  | 6  | 4               |
| BP-102-W L967603-02   | 9  | Cn              |
| FO-111-8 L967603-03   | 12 | ⁵Sr             |
| FO-111-W L967603-04   | 15 |                 |
| BP-119-W L967603-05   | 18 | <sup>6</sup> Qc |
| BP-119-8 L967603-06   | 21 | 7               |
| Qc: Quality Control Summary                                   | 24 | GI              |
| Total Solids by Method 2540 G-2011                            | 24 | <sup>8</sup> Al |
| Volatile Organic Compounds (GC) by Method NWTPHGX             | 25 |                 |
| Volatile Organic Compounds (GC/MS) by Method 8260B            | 27 | Sc              |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | 39 |                 |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | 41 |                 |
| GI: Glossary of Terms   | 45 |                 |
| Al: Accreditations & Locations                                | 46 |                 |
| Sc: Sample Chain of Custody                                   | 47 |                 |
|   |    |                 |

| Document No: J1-680-RGL-GRI-00001-00 | Revision: 1 |
|--------------------------------------|-------------|
| ACCOUNT:                             | PROJECT:    |
| GRI - Beaverton, OR                  | 5764-1195   |

SDG:

L967603

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

霥

| BP-102-12 L967603-01 Solid   |                        |          | Collected by<br>N. Utevsky       | Collected date/time<br>01/29/18 16:43 | Received date/time<br>02/03/18 08:45 |
|--|------------------------|----------|----------------------------------|---------------------------------------|--------------------------------------|
| Method   | Batch                  | Dilution | Preparation<br>date/time         | Analysis<br>date/time                 | Analyst                              |
| Total Solids by Method 2540 G-2011   | WG1070464              | 1        | 02/06/18 14:30                   | 02/06/18 14:43                        | KDW                                  |
| Volatile Organic Compounds (GC) by Method NWTPHGX  | WG1069747              | 1        | 01/29/18 16:43                   | 02/06/18 23:04                        | LRL                                  |
| /olatile Organic Compounds (GC/MS) by Method 8260B   | WG1070279              | 1        | 01/29/18 16:43                   | 02/06/18 14:19                        | BMB                                  |
| olatile Organic Compounds (GC/MS) by Method 8260B  | WG1070279              | 25       | 01/29/18 16:43                   | 02/07/18 12:03                        | ACG                                  |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT  | WG1069926              | 20.8     | 02/05/18 08:38                   | 02/05/18 16:02                        | ACM                                  |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1069800              | 3        | 02/03/18 22:40                   | 02/04/18 16:47                        | KM                                   |
|  |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| 3P-102-W L967603-02 GW   |                        |          | N. Utevsky                       | 01/30/18 10:02                        | 02/03/18 08:45                       |
| Nethod   | Batch                  | Dilution | Preparation                      | Analysis<br>data/time                 | Analyst                              |
| /olatile Organic Compounds (GC) by Method NWTPHGX  | WG1069970              | 1        | date/time<br>02/04/18 22:36      | date/time<br>02/04/18 22:36           | BMB                                  |
| /olatile Organic Compounds (GC/ by Method NWTPHGX<br>/olatile Organic Compounds (GC/MS) by Method 8260B                      | WG1069970<br>WG1069715 | 1        | 02/04/18 22:36                   | 02/04/18 22:36                        | DWR                                  |
| /olatile Organic Compounds (GC/MS) by Method 8260B   | WG1069715<br>WG1069715 | 1        | 02/04/18 03.22                   | 02/04/18 03.22                        | LRL                                  |
| Semi-Volatile Organic Compounds (GC/MS) by Method 82606  | WG1069715<br>WG1069801 | 1        | 02/05/18 05:43                   | 02/05/18 20:40                        | LRL                                  |
| Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1069935              | 2        | 02/03/18 05:43                   | 02/05/18 20:40                        | KM                                   |
|  | W01003333              | Z        | 02/04/10 21.35                   | 02/03/18 08.32                        | IZIVI                                |
|  |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| FO-111-8 L967603-03 Solid  |                        |          | N. Utevsky                       | 01/30/18 15:00                        | 02/03/18 08:45                       |
| Method   | Batch                  | Dilution | Preparation<br>date/time         | Analysis<br>date/time                 | Analyst                              |
| Eatal Salida by Mathad 2E40 C 2011   | WC1070464              | 1        |                                  |                                       | KDW                                  |
| otal Solids by Method 2540 G-2011  | WG1070464              | 1        | 02/06/18 14:30                   | 02/06/18 14:43                        | KDW                                  |
| olatile Organic Compounds (GC) by Method NWTPHGX   | WG1069747              | 1        | 01/30/18 15:00                   | 02/05/18 20:17                        | DWR                                  |
| /olatile Organic Compounds (GC/MS) by Method 8260B   | WG1070279              | 25       | 01/30/18 15:00                   | 02/06/18 13:58                        | BMB                                  |
| /olatile Organic Compounds (GC/MS) by Method 8260B   | WG1070279              | 2500     | 01/30/18 15:00                   | 02/07/18 02:22                        | JHH                                  |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT  | WG1069926              | 10       | 02/05/18 08:38                   | 02/05/18 16:17                        | MTJ                                  |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1069800              | 3        | 02/03/18 22:40                   | 02/04/18 17:09                        | KM                                   |
|  |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| FO-111-W L967603-04 GW   |                        |          | N. Utevsky                       | 01/31/18 09:20                        | 02/03/18 08:45                       |
| Method   | Batch                  | Dilution | Preparation<br>date/time         | Analysis<br>date/time                 | Analyst                              |
| (alatila Organic Compounds (CC) by Mathed NWTDUCY  | WIC1060070             | 1        |                                  |                                       | BMB                                  |
| /olatile Organic Compounds (GC) by Method NWTPHGX  | WG1069970              | 1        | 02/04/18 23:00                   | 02/04/18 23:00                        |                                      |
| /olatile Organic Compounds (GC/MS) by Method 8260B   | WG1069715              | 1        | 02/04/18 03:41                   | 02/04/18 03:41                        | DWR                                  |
| /olatile Organic Compounds (GC/MS) by Method 8260B   | WG1069715              | 1        | 02/06/18 21:42                   | 02/06/18 21:42                        | LRL                                  |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT<br>Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM | WG1069801              | 1        | 02/05/18 05:43<br>02/04/18 21:39 | 02/05/18 20:56                        | LM<br>KM                             |
| emi volatile Organic Compounds (GC/MS) by Method 82700-SIM   | WG1069935              | 1        | 02/04/18 21:39                   | 02/05/18 03:45                        | KIVI                                 |
|  |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| BP-119-W L967603-05 GW   |                        |          | N. Utevsky                       | 01/31/18 15:30                        | 02/03/18 08:45                       |
| Aethod   | Batch                  | Dilution | Preparation                      | Analysis                              | Analyst                              |
| (alatile Organic Compounds (CC) by Mathed NWTD (CV)  | WC10C0070              | 4        | date/time                        | date/time                             |                                      |
| /olatile Organic Compounds (GC) by Method NWTPHGX  | WG1069970              | 1        | 02/04/18 23:23                   | 02/04/18 23:23                        | BMB                                  |
| /olatile Organic Compounds (GC/MS) by Method 8260B   | WG1069715              | 1        | 02/04/18 04:00                   | 02/04/18 04:00                        | DWR                                  |
| Volatile Organic Compounds (GC/MS) by Method 8260B   | WG1069715              | 1        | 02/06/18 22:02                   | 02/06/18 22:02                        | LRL                                  |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT  | WG1069801              | 1        | 02/05/18 05:43                   | 02/05/18 21:12                        | LM                                   |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1069935              | 5        | 02/04/18 21:39                   | 02/05/18 09:37                        | KM                                   |

| Document No: J1-680-RGL-GRI-00001-00 | Revision: | 1       | Reissued for   | Use     |
|--------------------------------------|-----------|---------|----------------|---------|
| ACCOUNT:                             | PROJECT:  | SDG:    | DATE/TIME:     | PAGE:   |
| GRI - Beaverton, OR                  | 5764-1195 | L967603 | 02/07/18 17:58 | 3 of 52 |

## SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

|   |            |                | Collected by<br>N. Utevsky | Collected date/time<br>01/31/18 15:55 | Received date/time<br>02/03/18 08:45 |
|---|------------|----------------|----------------------------|---------------------------------------|--------------------------------------|
| BP-119-8 L967603-06 Solid                                     | N. ULEVSKY | 01/31/16 15.55 | 02/03/16 06.45             |                                       |                                      |
| Method  | Batch      | Dilution       | Preparation                | Analysis                              | Analyst                              |
|   |            |                | date/time                  | date/time                             |                                      |
| Total Solids by Method 2540 G-2011                            | WG1070464  | 1              | 02/06/18 14:30             | 02/06/18 14:43                        | KDW                                  |
| Volatile Organic Compounds (GC) by Method NWTPHGX             | WG1069747  | 100            | 01/31/18 15:55             | 02/05/18 20:39                        | DWR                                  |
| Volatile Organic Compounds (GC/MS) by Method 8260B            | WG1069771  | 100            | 01/31/18 15:55             | 02/03/18 23:18                        | JHH                                  |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | WG1069926  | 200            | 02/05/18 08:38             | 02/05/18 17:01                        | MTJ                                  |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1069800  | 100            | 02/03/18 22:40             | 02/06/18 04:14                        | DMG                                  |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1069800  | 60             | 02/03/18 22:40             | 02/04/18 17:31                        | KM                                   |

| ³S             | S  |
|----------------|----|
|                |    |
| <sup>4</sup> C | 'n |
|                |    |
| ⁵S             | r  |
|                |    |
| <sup>6</sup> C | )c |
|                |    |
| <sup>7</sup> G | il |
|                |    |
| <sup>8</sup> A | l  |
|                |    |
| °S             | С  |

| Document No: J1-680-RGL-GRI-00001-00 |
|--------------------------------------|
| ACCOUNT:                             |
| GPL Boavorton OP                     |

SDG: L967603 Reissued for Use DATE/TIME: 02/07/18 17:58

## CASE NARRATIVE

\*

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

Brian Ford

Brian Ford Technical Service Representative

| <sup>1</sup> Cp<br><sup>2</sup> Tc<br><sup>3</sup> Ss<br><sup>4</sup> Cn<br><sup>5</sup> Sr<br><sup>6</sup> Qc<br><sup>7</sup> GI<br><sup>8</sup> AI |                 |
|--|-----------------|
| <sup>3</sup> Ss<br><sup>4</sup> Cn<br><sup>5</sup> Sr<br><sup>6</sup> Qc<br><sup>7</sup> Gl  |                 |
| <sup>4</sup> Cn<br><sup>5</sup> Sr<br><sup>6</sup> Qc<br><sup>7</sup> Gl   | <sup>2</sup> Tc |
| <sup>5</sup> Sr<br><sup>6</sup> Qc<br><sup>7</sup> Gl  | <sup>3</sup> Ss |
| <sup>6</sup> Qc<br><sup>7</sup> Gl   | <sup>4</sup> Cn |
| <sup>7</sup> Gl  |                 |
| 8  | <sup>6</sup> Qc |
| <sup>8</sup> Al  | <sup>7</sup> Gl |
|  | <sup>8</sup> Al |
| <sup>9</sup> Sc  | <sup>9</sup> Sc |

| Document No: J1    | -680-RGL-GRI-00001-00 |
|--------------------|-----------------------|
| ACCOUNT:           |                       |
| GRI - Beaverton, C | )R                    |

Revision: 1

Reissued for Use DATE/TIME: 02/07/18 17:58

PAGE: 5 of 52

#### SAMPLE RESULTS - 01 L967603

ONE LAB. NATIONWIDE.

#### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |    |
|--------------|--------|-----------|----------|------------------|-----------|----|
| Analyte      | %      |           |          | date / time      |           | 2  |
| Total Solids | 80.3   |           | 1        | 02/06/2018 14:43 | WG1070464 | ŤΤ |

## Volatile Organic Compounds (GC) by Method NWTPHGX

|                                 | Result       | Qualifier  | Dilution | Analysis         | Batch    |                  |           |  |
|---------------------------------|--------------|------------|----------|------------------|----------|------------------|-----------|--|
| Analyte                         | %            |            |          | date / time      |          |                  |           |  |
| Total Solids                    | 80.3         |            | 1        | 02/06/2018 14:43 | WG10704  | 464              |           |  |
| Volatile Organic Comp           | ounds (GC)   | by Method  | NWTPH    | HGX              |          |                  |           |  |
|                                 | Result (dry) | Qualifier  | MDL (c   | lry) RDL (dry)   | Dilution | Analysis         | Batch     |  |
| Analyte                         | mg/kg        |            | mg/kg    | mg/kg            |          | date / time      |           |  |
| Gasoline Range Organics-NWTPH   | 0.803        |            | 0.0422   | 0.125            | 1        | 02/06/2018 23:04 | WG1069747 |  |
| (S) a,a,a-Trifluorotoluene(FID) | 97.2         |            |          | 77.0-120         |          | 02/06/2018 23:04 | WG1069747 |  |
|                                 |              |            |          |                  |          |                  |           |  |
|                                 |              |            |          |                  |          |                  |           |  |
| Volatile Organic Comp           | ounds (GC/   | MS) by Met | hod 826  | 60B              |          |                  |           |  |

## Volatile Organic Compounds (GC/MS) by Method 8260B

|                             | Result (dry)     | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch          | <sup>6</sup> Qc |
|-----------------------------|------------------|-----------|-----------|-------------|----------|------------------|----------------|-----------------|
| Analyte                     | mg/kg            |           | mg/kg     | mg/kg       |          | date / time      |                |                 |
| Acetone                     | U                |           | 0.0125    | 0.0623      | 1        | 02/06/2018 14:19 | WG1070279      | <sup>7</sup> Gl |
| Acrylonitrile               | U                |           | 0.00223   | 0.0125      | 1        | 02/06/2018 14:19 | WG1070279      | OI              |
| Benzene                     | 0.000374         | J         | 0.000336  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      | 8               |
| Bromobenzene                | U                |           | 0.000354  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      | ĬAĬ             |
| Bromodichloromethane        | U                |           | 0.000316  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Bromoform                   | U                |           | 0.000528  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      | °Sc             |
| Bromomethane                | U                |           | 0.00167   | 0.00623     | 1        | 02/06/2018 14:19 | WG1070279      | 50              |
| n-Butylbenzene              | U                |           | 0.000321  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| sec-Butylbenzene            | U                |           | 0.000250  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| tert-Butylbenzene           | U                |           | 0.000257  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Carbon tetrachloride        | U                |           | 0.000409  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Chlorobenzene               | U                |           | 0.000264  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Chlorodibromomethane        | U                |           | 0.000465  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Chloroethane                | U                |           | 0.00118   | 0.00623     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Chloroform                  | U                |           | 0.000285  | 0.00623     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Chloromethane               | U                |           | 0.000467  | 0.00311     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 2-Chlorotoluene             | U                |           | 0.000375  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 4-Chlorotoluene             | U                |           | 0.000299  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,2-Dibromo-3-Chloropropane | U                |           | 0.00131   | 0.00623     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,2-Dibromoethane           | U                |           | 0.000427  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Dibromomethane              | U                |           | 0.000476  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,2-Dichlorobenzene         | U                |           | 0.000380  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,3-Dichlorobenzene         | U                |           | 0.000298  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,4-Dichlorobenzene         | U                |           | 0.000281  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Dichlorodifluoromethane     | U                |           | 0.000888  | 0.00623     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,1-Dichloroethane          | U                |           | 0.000248  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,2-Dichloroethane          | U                |           | 0.000330  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,1-Dichloroethene          | U                |           | 0.000377  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| cis-1,2-Dichloroethene      | U                |           | 0.000293  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| trans-1,2-Dichloroethene    | U                |           | 0.000329  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,2-Dichloropropane         | U                |           | 0.000446  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,1-Dichloropropene         | U                |           | 0.000395  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 1,3-Dichloropropane         | U                |           | 0.000258  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| cis-1,3-Dichloropropene     | U                |           | 0.000326  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| trans-1,3-Dichloropropene   | U                |           | 0.000333  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 2,2-Dichloropropane         | U                |           | 0.000347  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Di-isopropyl ether          | U                |           | 0.000309  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Ethylbenzene                | U                |           | 0.000370  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Hexachloro-1,3-butadiene    | U                |           | 0.000426  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Isopropylbenzene            | U                |           | 0.000303  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| p-lsopropyltoluene          | U                |           | 0.000254  | 0.00125     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 2-Butanone (MEK)            | U                |           | 0.00583   | 0.0125      | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Methylene Chloride          | U                |           | 0.00125   | 0.00623     | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| 4-Methyl-2-pentanone (MIBK) | U                |           | 0.00234   | 0.0125      | 1        | 02/06/2018 14:19 | WG1070279      |                 |
| Document No:                | J1-680-RGL-GRI-( | 00001-00  | F         | Revision: 1 |          |                  | Reissued for   | Use             |
| ACCOUNT:                    |                  |           | PROJECT:  |             | SDG      | :                | DATE/TIME:     | PAGE:           |
| GRI - Beaverton             | , OR             |           | 5764-1195 |             | L9676    | 03               | 02/07/18 17:58 | 6 of 52         |

#### BP-102-12 Collected date/time: 01/29/18 16:43

## SAMPLE RESULTS - 01

## \*

### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|--------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                        | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Methyl tert-butyl ether        | U            |           | 0.000264  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Naphthalene                    | 0.0636       | J         | 0.0311    | 0.156     | 25       | 02/07/2018 12:03 | WG1070279 |  |
| n-Propylbenzene                | U            |           | 0.000257  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Styrene                        | U            |           | 0.000291  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,1,1,2-Tetrachloroethane      | U            |           | 0.000329  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,1,2,2-Tetrachloroethane      | U            |           | 0.000455  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,1,2-Trichlorotrifluoroethane | U            |           | 0.000455  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Tetrachloroethene              | U            |           | 0.000344  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Toluene                        | U            |           | 0.000541  | 0.00623   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,2,3-Trichlorobenzene         | U            |           | 0.000381  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,2,4-Trichlorobenzene         | U            |           | 0.000483  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,1,1-Trichloroethane          | U            |           | 0.000356  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,1,2-Trichloroethane          | U            |           | 0.000345  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Trichloroethene                | U            |           | 0.000347  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Trichlorofluoromethane         | U            |           | 0.000476  | 0.00623   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,2,3-Trichloropropane         | U            |           | 0.000923  | 0.00311   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,2,4-Trimethylbenzene         | 0.000299     | J         | 0.000263  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,2,3-Trimethylbenzene         | U            |           | 0.000357  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| 1,3,5-Trimethylbenzene         | 0.000368     | J         | 0.000331  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Vinyl chloride                 | U            |           | 0.000362  | 0.00125   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| Xylenes, Total                 | U            |           | 0.000869  | 0.00374   | 1        | 02/06/2018 14:19 | WG1070279 |  |
| (S) Toluene-d8                 | 87.4         |           |           | 80.0-120  |          | 02/06/2018 14:19 | WG1070279 |  |
| (S) Toluene-d8                 | 42.2         | <u>J2</u> |           | 80.0-120  |          | 02/07/2018 12:03 | WG1070279 |  |
| (S) Dibromofluoromethane       | 95.6         |           |           | 74.0-131  |          | 02/07/2018 12:03 | WG1070279 |  |
| (S) Dibromofluoromethane       | 117          |           |           | 74.0-131  |          | 02/06/2018 14:19 | WG1070279 |  |
| (S) 4-Bromofluorobenzene       | 130          |           |           | 64.0-132  |          | 02/06/2018 14:19 | WG1070279 |  |
| (S) 4-Bromofluorobenzene       | 102          |           |           | 64.0-132  |          | 02/07/2018 12:03 | WG1070279 |  |

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | 697          | <u>J3</u> | 34.1      | 104       | 20.8     | 02/05/2018 16:02 | WG1069926 |
| Residual Range Organics (RRO) | 757          | <u>J3</u> | 85.4      | 259       | 20.8     | 02/05/2018 16:02 | WG1069926 |
| (S) o-Terphenyl               | 89.0         |           |           | 18.0-148  |          | 02/05/2018 16:02 | WG1069926 |

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

GRI - Beaverton, OR

|                        | Result (dry)        | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch            |     |
|------------------------|---------------------|-----------|-----------|-------------|----------|------------------|------------------|-----|
| Analyte                | mg/kg               |           | mg/kg     | mg/kg       |          | date / time      |                  |     |
| Anthracene             | 0.0739              |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | WG1069800        |     |
| Acenaphthene           | 0.0915              |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | WG1069800        |     |
| Acenaphthylene         | U                   |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Benzo(a)anthracene     | 0.00733             | J         | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Benzo(a)pyrene         | 0.00403             | J         | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Benzo(b)fluoranthene   | U                   |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Benzo(g,h,i)perylene   | 0.00421             | J         | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Benzo(k)fluoranthene   | U                   |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Chrysene               | 0.00691             | J         | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Dibenz(a,h)anthracene  | U                   |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Fluoranthene           | 0.0217              | J         | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Fluorene               | 0.0308              |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Indeno(1,2,3-cd)pyrene | U                   |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Naphthalene            | 0.165               |           | 0.00747   | 0.0747      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Phenanthrene           | 0.139               |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| Pyrene                 | 0.0641              |           | 0.00224   | 0.0224      | 3        | 02/04/2018 16:47 | <u>WG1069800</u> |     |
| 1-Methylnaphthalene    | 0.321               |           | 0.00747   | 0.0747      | 3        | 02/04/2018 16:47 | WG1069800        |     |
| Document N             | lo: J1-680-RGL-GRI- | 00001-00  | F         | Revision: 1 |          |                  | Reissued for Use |     |
| ACCOU                  | JNT:                |           | PROJECT:  |             | SDG      | :                | DATE/TIME:       | PAG |

5764-1195

L967603

7 of 52

02/07/18 17:58

#### BP-102-12 Collected date/time: 01/29/18 16:43

## SAMPLE RESULTS - 01

\*

Qc

Gl

ΆI

Sc

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

|                      | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |    |
|----------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|----|
| Analyte              | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           | L  |
| 2-Methylnaphthalene  | 0.409        |           | 0.00747   | 0.0747    | 3        | 02/04/2018 16:47 | WG1069800 | 2. |
| 2-Chloronaphthalene  | U            |           | 0.00747   | 0.0747    | 3        | 02/04/2018 16:47 | WG1069800 |    |
| (S) Nitrobenzene-d5  | 63.5         |           |           | 14.0-149  |          | 02/04/2018 16:47 | WG1069800 | 3  |
| (S) 2-Fluorobiphenyl | 70.1         |           |           | 34.0-125  |          | 02/04/2018 16:47 | WG1069800 | 5  |
| (S) p-Terphenyl-d14  | 60.1         |           |           | 23.0-120  |          | 02/04/2018 16:47 | WG1069800 |    |
|                      |              |           |           |           |          |                  |           | 4  |

#### Sample Narrative:

L967603-01 WG1069800: Dilution due to sample volume

| Document No: J1-680-RGL-GRI-00001-00 |
|--------------------------------------|
| ACCOUNT:                             |
| GRI - Beaverton OR                   |

SDG: L967603 Reissued for Use DATE/TIME: 02/07/18 17:58

PAGE: 8 of 52

#### SAMPLE RESULTS - 02 L967603



## Volatile Organic Compounds (GC) by Method NWTPHGX

|                     | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch            |
|---------------------|--------|-----------|------|----------|----------|------------------|------------------|
|                     | ug/l   |           | ug/l | ug/l     |          | date / time      |                  |
| e Range<br>s-NWTPH  | U      |           | 31.6 | 100      | 1        | 02/04/2018 22:36 | WG1069970        |
| ifluorotoluene(FID) | 102    |           |      | 77.0-122 |          | 02/04/2018 22:36 | <u>WG1069970</u> |

## Volatile Organic Compounds (GC/MS) by Method 8260B

|                            | Result     | Qualifier      | MDL   | RDL       | Dilution | Analysis         | Batch            | L       |
|----------------------------|------------|----------------|-------|-----------|----------|------------------|------------------|---------|
| Analyte                    | ug/l       |                | ug/l  | ug/l      |          | date / time      |                  | 5       |
| Acetone                    | U          |                | 10.0  | 50.0      | 1        | 02/04/2018 03:22 | WG1069715        | 5       |
| Acrolein                   | U          | <u>J4</u>      | 8.87  | 50.0      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Acrylonitrile              | U          |                | 1.87  | 10.0      | 1        | 02/04/2018 03:22 | WG1069715        | 6       |
| Benzene                    | U          |                | 0.331 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Bromobenzene               | U          |                | 0.352 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        | 7       |
| Bromodichloromethane       | U          |                | 0.380 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        | /       |
| Bromoform                  | U          |                | 0.469 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Bromomethane               | U          | <u>J3</u>      | 0.866 | 5.00      | 1        | 02/04/2018 03:22 | WG1069715        | 8       |
| -Butylbenzene              | U          | _              | 0.361 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| ec-Butylbenzene            | U          |                | 0.365 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        | 9       |
| ert-Butylbenzene           | U          |                | 0.399 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Carbon tetrachloride       | U          |                | 0.379 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        | L       |
| Chlorobenzene              | U          |                | 0.348 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Chlorodibromomethane       | U          |                | 0.327 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Chloroethane               | U          | <u>J3</u>      | 0.453 | 5.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Chloroform                 | U          | <u></u>        | 0.324 | 5.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Chloromethane              | U          | <u>J3 J4</u>   | 0.276 | 2.50      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| -Chlorotoluene             | U          | <u> </u>       | 0.276 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| -Chlorotoluene             | U          |                | 0.351 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 2-Dibromo-3-Chloropropane  | U          |                | 1.33  | 5.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
|                            | U          |                | 0.381 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 2-Dibromoethane            | U          |                | 0.346 | 1.00      | 1        | 02/04/2018 03:22 |                  |         |
| ibromomethane              |            |                |       |           |          |                  | WG1069715        |         |
| 2-Dichlorobenzene          | U          |                | 0.349 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 3-Dichlorobenzene          |            |                | 0.220 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 4-Dichlorobenzene          | U          |                | 0.274 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| ichlorodifluoromethane     | U          |                | 0.551 | 5.00      | 1        | 02/06/2018 21:22 | WG1069715        |         |
| 1-Dichloroethane           | U          |                | 0.259 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 2-Dichloroethane           | U          | 10             | 0.361 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 1-Dichloroethene           | U          | <u>J3</u>      | 0.398 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| is-1,2-Dichloroethene      | U          |                | 0.260 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| ans-1,2-Dichloroethene     | U          |                | 0.396 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 2-Dichloropropane          | U          |                | 0.306 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 1-Dichloropropene          | U          |                | 0.352 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| 3-Dichloropropane          | U          |                | 0.366 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| s-1,3-Dichloropropene      | U          |                | 0.418 | 1.00      | 1        | 02/04/2018 03:22 | <u>WG1069715</u> |         |
| ans-1,3-Dichloropropene    | U          |                | 0.419 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| ,2-Dichloropropane         | U          | <u>J3</u>      | 0.321 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| i-isopropyl ether          | U          |                | 0.320 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| thylbenzene                | U          |                | 0.384 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| exachloro-1,3-butadiene    | U          |                | 0.256 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| opropylbenzene             | U          |                | 0.326 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| -Isopropyltoluene          | U          |                | 0.350 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| -Butanone (MEK)            | U          |                | 3.93  | 10.0      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| lethylene Chloride         | U          |                | 1.00  | 5.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| -Methyl-2-pentanone (MIBK) | U          |                | 2.14  | 10.0      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| lethyl tert-butyl ether    | U          |                | 0.367 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| laphthalene                | U          |                | 1.00  | 5.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| -Propylbenzene             | U          |                | 0.349 | 1.00      | 1        | 02/04/2018 03:22 | WG1069715        |         |
| Document                   | No: J1-680 | )-RGL-GRI-0000 | 1-00  | Rev       | ision: 1 |                  | Reissued for     | Use     |
| ACCO                       | -          |                |       | PROJECT:  |          | SDG:             | DATE/TIME:       | PAGE:   |
|                            | verton, OR |                |       | 5764-1195 |          | L967603          | 02/07/18 17:58   | 9 of 52 |

## SAMPLE RESULTS - 02



#### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result | Qualifier    | MDL   | RDL      | Dilution | Analysis         | Batch     | i ( |
|--------------------------------|--------|--------------|-------|----------|----------|------------------|-----------|-----|
| Analyte                        | ug/l   |              | ug/l  | ug/l     |          | date / time      |           |     |
| Styrene                        | U      |              | 0.307 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 2   |
| 1,1,1,2-Tetrachloroethane      | U      |              | 0.385 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 |     |
| 1,1,2,2-Tetrachloroethane      | U      |              | 0.130 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 3   |
| 1,1,2-Trichlorotrifluoroethane | U      | <u>J3</u>    | 0.303 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 5   |
| Tetrachloroethene              | U      |              | 0.372 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 |     |
| Toluene                        | U      |              | 0.412 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 4   |
| 1,2,3-Trichlorobenzene         | U      |              | 0.230 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 |     |
| 1,2,4-Trichlorobenzene         | U      |              | 0.355 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 5   |
| 1,1,1-Trichloroethane          | U      |              | 0.319 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 5   |
| 1,1,2-Trichloroethane          | U      |              | 0.383 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 |     |
| Trichloroethene                | U      |              | 0.398 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 6   |
| Trichlorofluoromethane         | U      | <u>J3</u>    | 1.20  | 5.00     | 1        | 02/04/2018 03:22 | WG1069715 |     |
| 1,2,3-Trichloropropane         | U      |              | 0.807 | 2.50     | 1        | 02/04/2018 03:22 | WG1069715 | 7   |
| 1,2,4-Trimethylbenzene         | U      |              | 0.373 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | ,   |
| 1,2,3-Trimethylbenzene         | U      |              | 0.321 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 |     |
| 1,3,5-Trimethylbenzene         | U      |              | 0.387 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 | 8   |
| Vinyl chloride                 | U      | <u>J3 J4</u> | 0.259 | 1.00     | 1        | 02/04/2018 03:22 | WG1069715 |     |
| Xylenes, Total                 | U      |              | 1.06  | 3.00     | 1        | 02/04/2018 03:22 | WG1069715 | 9   |
| (S) Toluene-d8                 | 99.0   |              |       | 80.0-120 |          | 02/06/2018 21:22 | WG1069715 | 5   |
| (S) Toluene-d8                 | 102    |              |       | 80.0-120 |          | 02/04/2018 03:22 | WG1069715 |     |
| (S) Dibromofluoromethane       | 88.1   |              |       | 76.0-123 |          | 02/04/2018 03:22 | WG1069715 |     |
| (S) Dibromofluoromethane       | 93.1   |              |       | 76.0-123 |          | 02/06/2018 21:22 | WG1069715 |     |
| (S) 4-Bromofluorobenzene       | 98.1   |              |       | 80.0-120 |          | 02/04/2018 03:22 | WG1069715 |     |
| (S) 4-Bromofluorobenzene       | 106    |              |       | 80.0-120 |          | 02/06/2018 21:22 | WG1069715 |     |

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

|                               | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch            |
|-------------------------------|--------|-----------|------|----------|----------|------------------|------------------|
| Analyte                       | ug/l   |           | ug/l | ug/l     |          | date / time      |                  |
| Diesel Range Organics (DRO)   | 42.8   | J         | 33.0 | 100      | 1        | 02/05/2018 20:40 | <u>WG1069801</u> |
| Residual Range Organics (RRO) | U      |           | 82.5 | 250      | 1        | 02/05/2018 20:40 | WG1069801        |
| (S) o-Terphenyl               | 86.1   |           |      | 31.0-160 |          | 02/05/2018 20:40 | WG1069801        |

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

|                        | Result          | Qualifier    | MDL     | RDL      | Dilution | Analysis         | Batch     |                  |
|------------------------|-----------------|--------------|---------|----------|----------|------------------|-----------|------------------|
| Analyte                | ug/l            |              | ug/l    | ug/l     |          | date / time      |           |                  |
| Anthracene             | U               |              | 0.0280  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Acenaphthene           | U               |              | 0.0200  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Acenaphthylene         | U               |              | 0.0240  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Benzo(a)anthracene     | U               |              | 0.00820 | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Benzo(a)pyrene         | U               |              | 0.0232  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Benzo(b)fluoranthene   | 0.00680         | <u>B J</u>   | 0.00424 | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Benzo(g,h,i)perylene   | 0.00662         | <u>B J</u>   | 0.00454 | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Benzo(k)fluoranthene   | U               |              | 0.0272  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Chrysene               | U               |              | 0.0216  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Dibenz(a,h)anthracene  | U               |              | 0.00792 | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Fluoranthene           | U               |              | 0.0314  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Fluorene               | U               |              | 0.0170  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Indeno(1,2,3-cd)pyrene | U               |              | 0.0296  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Naphthalene            | 0.0978          | <u>BJ</u>    | 0.0396  | 0.500    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Phenanthrene           | U               |              | 0.0164  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| Pyrene                 | U               |              | 0.0234  | 0.100    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| 1-Methylnaphthalene    | U               |              | 0.0164  | 0.500    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| 2-Methylnaphthalene    | U               |              | 0.0180  | 0.500    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| 2-Chloronaphthalene    | U               |              | 0.0129  | 0.500    | 2        | 02/05/2018 08:32 | WG1069935 |                  |
| (S) Nitrobenzene-d5    | 82.0            |              |         | 31.0-160 |          | 02/05/2018 08:32 | WG1069935 |                  |
| Docume                 | ent No: 11-680- | RGI-GRI-0000 | 1-00    | Rev      | ision: 1 |                  |           | Reissued for Use |

ACCOUNT: GRI - Beaverton, OR PROJECT: 5764-1195

SDG: L967603 Reissued for U

02/07/18 17:58

PAGE: 10 of 52

| BP-102-W             |          |       |
|----------------------|----------|-------|
| Collected date/time: | 01/30/18 | 10:02 |

## SAMPLE RESULTS - 02

ONE LAB. NATIONWIDE.

\*

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

|                      | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch     | <br><sup>1</sup> Cp |
|----------------------|--------|-----------|------|----------|----------|------------------|-----------|---------------------|
| Analyte              | ug/l   |           | ug/l | ug/l     |          | date / time      |           |                     |
| (S) 2-Fluorobiphenyl | 102    |           |      | 48.0-148 |          | 02/05/2018 08:32 | WG1069935 | <sup>2</sup> Tc     |
| (S) p-Terphenyl-d14  | 73.4   |           |      | 37.0-146 |          | 02/05/2018 08:32 | WG1069935 |                     |

#### Sample Narrative:

L967603-02 WG1069935: Dilution due to matrix impact during extraction procedure

| <sup>2</sup> Tc |
|-----------------|
| <sup>3</sup> Ss |
| <sup>4</sup> Cn |
| ⁵Sr             |
| <sup>6</sup> Qc |
|                 |
| <sup>7</sup> Gl |
| <sup>°</sup> Gl |

| Docume   | nt No: J1-680-RGL-GRI-00001-00 |
|----------|--------------------------------|
| AC       | COUNT:                         |
| GRI - Be | eaverton, OR                   |

#### SAMPLE RESULTS - 03 L967603

ONE LAB. NATIONWIDE.

.

#### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |    |
|--------------|--------|-----------|----------|------------------|-----------|----|
| Analyte      | %      |           |          | date / time      |           | 2  |
| Total Solids | 81.8   |           | 1        | 02/06/2018 14:43 | WG1070464 | ŤΤ |

## Volatile Organic Compounds (GC) by Method NWTPHGX

|                                 | Result       | Qualifier   | Dilution | Analysis         | Batch    |                  |           |
|---------------------------------|--------------|-------------|----------|------------------|----------|------------------|-----------|
| Analyte                         | %            |             |          | date / time      |          |                  |           |
| Total Solids                    | 81.8         |             | 1        | 02/06/2018 14:43 | WG1070   | 464              |           |
| Volatile Organic Comp           | ounds (GC)   | by Method   | NWTP     | IGX              |          |                  |           |
|                                 | Result (dry) | Qualifier   | MDL (    | ry) RDL (dry)    | Dilution | Analysis         | Batch     |
| Analyte                         | mg/kg        |             | mg/kg    | mg/kg            |          | date / time      |           |
| Gasoline Range Organics-NWTPH   | 1.66         |             | 0.0414   | 0.122            | 1        | 02/05/2018 20:17 | WG1069747 |
| (S) a,a,a-Trifluorotoluene(FID) | 94.2         |             |          | 77.0-120         |          | 02/05/2018 20:17 | WG1069747 |
|                                 |              |             |          |                  |          |                  |           |
| Volatile Organic Comp           | ounds (GC/   | 'MS) by Met | hod 82   | 60B              |          |                  |           |
|                                 |              |             |          |                  |          |                  |           |

## Volatile Organic Compounds (GC/MS) by Method 8260B

|                             | Result (dry)    | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch          | <sup>6</sup> Qc |
|-----------------------------|-----------------|-----------|-----------|-------------|----------|------------------|----------------|-----------------|
| Analyte                     | mg/kg           |           | mg/kg     | mg/kg       |          | date / time      |                |                 |
| Acetone                     | U               |           | 0.306     | 1.53        | 25       | 02/06/2018 13:58 | WG1070279      | <sup>7</sup> Gl |
| Acrylonitrile               | U               |           | 0.0548    | 0.306       | 25       | 02/06/2018 13:58 | WG1070279      | U               |
| Benzene                     | U               |           | 0.00825   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      | 8               |
| Bromobenzene                | U               |           | 0.00868   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      | Ă               |
| Bromodichloromethane        | U               |           | 0.00776   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Bromoform                   | U               |           | 0.0130    | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      | °Sc             |
| Bromomethane                | U               |           | 0.0410    | 0.153       | 25       | 02/06/2018 13:58 | WG1070279      | 50              |
| n-Butylbenzene              | U               |           | 0.00789   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| sec-Butylbenzene            | 0.0797          |           | 0.00614   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| tert-Butylbenzene           | U               |           | 0.00630   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Carbon tetrachloride        | U               |           | 0.0100    | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Chlorobenzene               | U               |           | 0.00648   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Chlorodibromomethane        | U               |           | 0.0114    | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Chloroethane                | U               |           | 0.0289    | 0.153       | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Chloroform                  | U               |           | 0.00699   | 0.153       | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Chloromethane               | U               |           | 0.0115    | 0.0764      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 2-Chlorotoluene             | U               |           | 0.00919   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 4-Chlorotoluene             | U               |           | 0.00734   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,2-Dibromo-3-Chloropropane | U               |           | 0.0320    | 0.153       | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,2-Dibromoethane           | U               |           | 0.0105    | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Dibromomethane              | U               |           | 0.0117    | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,2-Dichlorobenzene         | U               |           | 0.00932   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,3-Dichlorobenzene         | U               |           | 0.00731   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,4-Dichlorobenzene         | U               |           | 0.00691   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Dichlorodifluoromethane     | U               |           | 0.0218    | 0.153       | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,1-Dichloroethane          | U               |           | 0.00609   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,2-Dichloroethane          | U               |           | 0.00809   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,1-Dichloroethene          | U               |           | 0.00927   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| cis-1,2-Dichloroethene      | U               |           | 0.00719   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| trans-1,2-Dichloroethene    | U               |           | 0.00807   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,2-Dichloropropane         | U               |           | 0.0109    | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,1-Dichloropropene         | U               |           | 0.00968   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 1,3-Dichloropropane         | U               |           | 0.00633   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| cis-1,3-Dichloropropene     | U               |           | 0.00801   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| trans-1,3-Dichloropropene   | U               |           | 0.00817   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 2,2-Dichloropropane         | U               |           | 0.00853   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Di-isopropyl ether          | U               |           | 0.00758   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Ethylbenzene                | 0.0158          | J         | 0.00907   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Hexachloro-1,3-butadiene    | U               |           | 0.0105    | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Isopropylbenzene            | 0.0297          | J         | 0.00743   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| p-lsopropyltoluene          | 0.0133          | J         | 0.00624   | 0.0306      | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 2-Butanone (MEK)            | U               |           | 0.143     | 0.306       | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Methylene Chloride          | U               |           | 0.0306    | 0.153       | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| 4-Methyl-2-pentanone (MIBK) | U               |           | 0.0575    | 0.306       | 25       | 02/06/2018 13:58 | WG1070279      |                 |
| Document No:                | J1-680-RGL-GRI- | 0001-00   | F         | Revision: 1 |          |                  | Reissued for L | Jse             |
| ACCOUNT                     | :               |           | PROJECT:  |             | SDG      | :                | DATE/TIME:     | PAGE:           |
| GRI - Beaverton             | n, OR           |           | 5764-1195 |             | L9676    | 03               | 02/07/18 17:58 | 12 of 52        |

## SAMPLE RESULTS - 03

## \*

## Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|--------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                        | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Methyl tert-butyl ether        | U            |           | 0.00648   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Naphthalene                    | 46.8         |           | 3.06      | 15.3      | 2500     | 02/07/2018 02:22 | WG1070279 |  |
| n-Propylbenzene                | 0.00794      | J         | 0.00630   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Styrene                        | U            |           | 0.00715   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,1,1,2-Tetrachloroethane      | U            |           | 0.00807   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,1,2,2-Tetrachloroethane      | U            |           | 0.0112    | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,1,2-Trichlorotrifluoroethane | U            |           | 0.0112    | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Tetrachloroethene              | U            |           | 0.00844   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Toluene                        | U            |           | 0.0132    | 0.153     | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,2,3-Trichlorobenzene         | U            |           | 0.00935   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,2,4-Trichlorobenzene         | U            |           | 0.0119    | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,1,1-Trichloroethane          | U            |           | 0.00874   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,1,2-Trichloroethane          | U            |           | 0.00846   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Trichloroethene                | U            |           | 0.00853   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Trichlorofluoromethane         | U            |           | 0.0117    | 0.153     | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,2,3-Trichloropropane         | U            |           | 0.0226    | 0.0764    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,2,4-Trimethylbenzene         | 0.0546       |           | 0.00646   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,2,3-Trimethylbenzene         | 0.0263       | J         | 0.00878   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| 1,3,5-Trimethylbenzene         | 0.0261       | J         | 0.00813   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Vinyl chloride                 | U            |           | 0.00890   | 0.0306    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| Xylenes, Total                 | 0.0325       | J         | 0.0213    | 0.0917    | 25       | 02/06/2018 13:58 | WG1070279 |  |
| (S) Toluene-d8                 | 101          |           |           | 80.0-120  |          | 02/07/2018 02:22 | WG1070279 |  |
| (S) Toluene-d8                 | 73.0         | <u>J2</u> |           | 80.0-120  |          | 02/06/2018 13:58 | WG1070279 |  |
| (S) Dibromofluoromethane       | 100          |           |           | 74.0-131  |          | 02/06/2018 13:58 | WG1070279 |  |
| (S) Dibromofluoromethane       | 102          |           |           | 74.0-131  |          | 02/07/2018 02:22 | WG1070279 |  |
| (S) 4-Bromofluorobenzene       | 103          |           |           | 64.0-132  |          | 02/07/2018 02:22 | WG1070279 |  |
| (S) 4-Bromofluorobenzene       | 100          |           |           | 64.0-132  |          | 02/06/2018 13:58 | WG1070279 |  |

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | 375          | <u>J3</u> | 16.1      | 48.9      | 10       | 02/05/2018 16:17 | WG1069926 |
| Residual Range Organics (RRO) | 477          | <u>J3</u> | 40.3      | 122       | 10       | 02/05/2018 16:17 | WG1069926 |
| (S) o-Terphenyl               | 93.6         |           |           | 18.0-148  |          | 02/05/2018 16:17 | WG1069926 |

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

GRI - Beaverton, OR

|                                      | Result (dry) | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch          |     |
|--------------------------------------|--------------|-----------|-----------|-------------|----------|------------------|----------------|-----|
| Analyte                              | mg/kg        |           | mg/kg     | mg/kg       |          | date / time      |                |     |
| Anthracene                           | 0.173        |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Acenaphthene                         | 0.267        |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Acenaphthylene                       | U            |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Benzo(a)anthracene                   | 0.0626       |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Benzo(a)pyrene                       | 0.0234       |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Benzo(b)fluoranthene                 | 0.0275       |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Benzo(g,h,i)perylene                 | 0.00965      | J         | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Benzo(k)fluoranthene                 | 0.00710      | J         | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Chrysene                             | 0.0914       |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Dibenz(a,h)anthracene                | 0.00453      | J         | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Fluoranthene                         | 0.222        |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Fluorene                             | 0.188        |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Indeno(1,2,3-cd)pyrene               | 0.00405      | J         | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Naphthalene                          | 0.372        |           | 0.00734   | 0.0734      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Phenanthrene                         | 0.455        |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Pyrene                               | 0.287        |           | 0.00220   | 0.0220      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| 1-Methylnaphthalene                  | 0.0774       |           | 0.00734   | 0.0734      | 3        | 02/04/2018 17:09 | WG1069800      |     |
| Document No: J1-680-RGL-GRI-00001-00 |              | 00001-00  | F         | Revision: 1 |          |                  | Reissued for U | se  |
| ACCOU                                | NT:          |           | PROJECT:  |             | SDG      | :                | DATE/TIME:     | PAG |

5764-1195

L967603

PAGE: 13 of 52

02/07/18 17:58

## SAMPLE RESULTS - 03 L967603

Qc

Gl

AI

Sc

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

|                                | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch            |   |
|--------------------------------|--------------|-----------|-----------|-----------|----------|------------------|------------------|---|
| Analyte                        | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |                  | L |
| 2-Methylnaphthalene            | 0.121        |           | 0.00734   | 0.0734    | 3        | 02/04/2018 17:09 | WG1069800        | : |
| 2-Chloronaphthalene            | U            |           | 0.00734   | 0.0734    | 3        | 02/04/2018 17:09 | WG1069800        |   |
| (S) Nitrobenzene-d5            | 83.7         |           |           | 14.0-149  |          | 02/04/2018 17:09 | WG1069800        | 5 |
| (S) 2-Fluorobiphenyl           | 76.2         |           |           | 34.0-125  |          | 02/04/2018 17:09 | WG1069800        |   |
| (S) p-Terphenyl-d14            | 72.7         |           |           | 23.0-120  |          | 02/04/2018 17:09 | WG1069800        | L |
| ( <i>S) μ- τειμπει</i> ΙΥΙ-014 | 12.1         |           |           | 23.0-120  |          | 02/04/2018 17.09 | <u>w01003800</u> |   |

#### Sample Narrative:

L967603-03 WG1069800: Dilution due to sample volume

| Ρ  | AG | E: |
|----|----|----|
| 14 | of | 52 |

SDG: L967603

Reissued for Use DATE/TIME: 02/07/18 17:58

#### SAMPLE RESULTS - 04 L967603



## Volatile Organic Compounds (GC) by Method NWTPHGX

|                      | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch            |
|----------------------|--------|-----------|------|----------|----------|------------------|------------------|
| 9                    | ug/l   |           | ug/l | ug/l     |          | date / time      |                  |
| ie Range<br>cs-NWTPH | U      |           | 31.6 | 100      | 1        | 02/04/2018 23:00 | <u>WG1069970</u> |
| rifluorotoluene(FID) | 101    |           |      | 77.0-122 |          | 02/04/2018 23:00 | WG1069970        |

## Volatile Organic Compounds (GC/MS) by Method 8260B

|                            | Result     | Qualifier      | MDL   | RDL       | Dilution   | Analysis         | Batch            |          |
|----------------------------|------------|----------------|-------|-----------|------------|------------------|------------------|----------|
| Analyte                    | ug/l       |                | ug/l  | ug/l      |            | date / time      |                  | 5        |
| Acetone                    | U          |                | 10.0  | 50.0      | 1          | 02/04/2018 03:41 | WG1069715        | ິS၊      |
| Acrolein                   | U          | <u>J4</u>      | 8.87  | 50.0      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Acrylonitrile              | U          |                | 1.87  | 10.0      | 1          | 02/04/2018 03:41 | WG1069715        | ŮQ       |
| Benzene                    | U          |                | 0.331 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Bromobenzene               | U          |                | 0.352 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        | 7        |
| Bromodichloromethane       | U          |                | 0.380 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        | Í G      |
| Bromoform                  | U          |                | 0.469 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Bromomethane               | U          | <u>J3</u>      | 0.866 | 5.00      | 1          | 02/04/2018 03:41 | WG1069715        | Å        |
| n-Butylbenzene             | U          |                | 0.361 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| sec-Butylbenzene           | U          |                | 0.365 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        | 9        |
| ert-Butylbenzene           | U          |                | 0.399 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        | S        |
| Carbon tetrachloride       | U          |                | 0.379 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Chlorobenzene              | U          |                | 0.348 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Chlorodibromomethane       | U          |                | 0.327 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Chloroethane               | U          | <u>J3</u>      | 0.453 | 5.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Chloroform                 | U          |                | 0.324 | 5.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Chloromethane              | U          | <u>J3 J4</u>   | 0.276 | 2.50      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| 2-Chlorotoluene            | U          | 0001           | 0.375 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| -Chlorotoluene             | U          |                | 0.351 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ,2-Dibromo-3-Chloropropane | U          |                | 1.33  | 5.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| 2-Dibromoethane            | U          |                | 0.381 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| libromomethane             | U          |                | 0.346 | 1.00      | 1          |                  |                  |          |
|                            | U          |                | 0.346 | 1.00      |            | 02/04/2018 03:41 | WG1069715        |          |
| 2-Dichlorobenzene          | U          |                |       |           | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ,3-Dichlorobenzene         | U          |                | 0.220 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ,4-Dichlorobenzene         |            |                | 0.274 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ichlorodifluoromethane     | U          |                | 0.551 | 5.00      | 1          | 02/06/2018 21:42 | WG1069715        |          |
| 1-Dichloroethane           | U          |                | 0.259 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ,2-Dichloroethane          | U          | 10             | 0.361 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ,1-Dichloroethene          | U          | <u>J3</u>      | 0.398 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| is-1,2-Dichloroethene      | U          |                | 0.260 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| rans-1,2-Dichloroethene    | U          |                | 0.396 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ,2-Dichloropropane         | U          |                | 0.306 | 1.00      | 1          | 02/04/2018 03:41 | <u>WG1069715</u> |          |
| 1-Dichloropropene          | U          |                | 0.352 | 1.00      | 1          | 02/04/2018 03:41 | <u>WG1069715</u> |          |
| ,3-Dichloropropane         | U          |                | 0.366 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| is-1,3-Dichloropropene     | U          |                | 0.418 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| rans-1,3-Dichloropropene   | U          |                | 0.419 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| ,2-Dichloropropane         | U          | <u>J3</u>      | 0.321 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Di-isopropyl ether         | U          |                | 0.320 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| thylbenzene                | U          |                | 0.384 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| lexachloro-1,3-butadiene   | U          |                | 0.256 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| sopropylbenzene            | U          |                | 0.326 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| -Isopropyltoluene          | U          |                | 0.350 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| -Butanone (MEK)            | U          |                | 3.93  | 10.0      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| lethylene Chloride         | U          |                | 1.00  | 5.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| -Methyl-2-pentanone (MIBK) | U          |                | 2.14  | 10.0      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| Nethyl tert-butyl ether    | U          |                | 0.367 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| laphthalene                | U          |                | 1.00  | 5.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
| -Propylbenzene             | U          |                | 0.349 | 1.00      | 1          | 02/04/2018 03:41 | WG1069715        |          |
|                            | No: 11-680 | )-RGL-GRI-0000 |       |           | sion: 1    |                  | Reissued for     | Use      |
| ACCOUNT: PROJECT:          |            |                |       | SDG:      | DATE/TIME: | PAGE:            |                  |          |
|                            | verton, OR |                |       | 5764-1195 |            | L967603          | 02/07/18 17:58   | 15 of 52 |

## SAMPLE RESULTS - 04



#### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result | Qualifier    | MDL   | RDL      | Dilution | Analysis         | Batch     |  |
|--------------------------------|--------|--------------|-------|----------|----------|------------------|-----------|--|
| Analyte                        | ug/l   |              | ug/l  | ug/l     |          | date / time      |           |  |
| Styrene                        | U      |              | 0.307 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,1,1,2-Tetrachloroethane      | U      |              | 0.385 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,1,2,2-Tetrachloroethane      | U      |              | 0.130 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,1,2-Trichlorotrifluoroethane | U      | <u>J3</u>    | 0.303 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| Tetrachloroethene              | U      |              | 0.372 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| Toluene                        | U      |              | 0.412 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,2,3-Trichlorobenzene         | U      |              | 0.230 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,2,4-Trichlorobenzene         | U      |              | 0.355 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,1,1-Trichloroethane          | U      |              | 0.319 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,1,2-Trichloroethane          | U      |              | 0.383 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| Trichloroethene                | U      |              | 0.398 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| Trichlorofluoromethane         | U      | <u>J3</u>    | 1.20  | 5.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,2,3-Trichloropropane         | U      |              | 0.807 | 2.50     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,2,4-Trimethylbenzene         | U      |              | 0.373 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,2,3-Trimethylbenzene         | U      |              | 0.321 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| 1,3,5-Trimethylbenzene         | U      |              | 0.387 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| Vinyl chloride                 | U      | <u>J3 J4</u> | 0.259 | 1.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| Xylenes, Total                 | U      |              | 1.06  | 3.00     | 1        | 02/04/2018 03:41 | WG1069715 |  |
| (S) Toluene-d8                 | 96.6   |              |       | 80.0-120 |          | 02/06/2018 21:42 | WG1069715 |  |
| (S) Toluene-d8                 | 100    |              |       | 80.0-120 |          | 02/04/2018 03:41 | WG1069715 |  |
| (S) Dibromofluoromethane       | 89.0   |              |       | 76.0-123 |          | 02/04/2018 03:41 | WG1069715 |  |
| (S) Dibromofluoromethane       | 94.7   |              |       | 76.0-123 |          | 02/06/2018 21:42 | WG1069715 |  |
| (S) 4-Bromofluorobenzene       | 96.7   |              |       | 80.0-120 |          | 02/04/2018 03:41 | WG1069715 |  |
| (S) 4-Bromofluorobenzene       | 100    |              |       | 80.0-120 |          | 02/06/2018 21:42 | WG1069715 |  |

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

|                               | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch            |
|-------------------------------|--------|-----------|------|----------|----------|------------------|------------------|
| Analyte                       | ug/l   |           | ug/l | ug/l     |          | date / time      |                  |
| Diesel Range Organics (DRO)   | 41.6   | J         | 33.0 | 100      | 1        | 02/05/2018 20:56 | <u>WG1069801</u> |
| Residual Range Organics (RRO) | U      |           | 82.5 | 250      | 1        | 02/05/2018 20:56 | <u>WG1069801</u> |
| (S) o-Terphenyl               | 90.4   |           |      | 31.0-160 |          | 02/05/2018 20:56 | WG1069801        |

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

|                       | Result          | Qualifier    | MDL     | RDL      | Dilution | Analysis         | Batch      |        |
|-----------------------|-----------------|--------------|---------|----------|----------|------------------|------------|--------|
| Analyte               | ug/l            |              | ug/l    | ug/l     |          | date / time      |            |        |
| Anthracene            | U               |              | 0.0140  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Acenaphthene          | U               |              | 0.0100  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Acenaphthylene        | U               |              | 0.0120  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Benzo(a)anthracene    | U               |              | 0.00410 | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Benzo(a)pyrene        | U               |              | 0.0116  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Benzo(b)fluoranthene  | 0.00721         | <u>B J</u>   | 0.00212 | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Benzo(g,h,i)perylene  | 0.00248         | <u>B J</u>   | 0.00227 | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Benzo(k)fluoranthene  | U               |              | 0.0136  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Chrysene              | U               |              | 0.0108  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Dibenz(a,h)anthracene | U               |              | 0.00396 | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Fluoranthene          | U               |              | 0.0157  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| luorene               | U               |              | 0.00850 | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| ndeno(1,2,3-cd)pyrene | U               |              | 0.0148  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Naphthalene           | 0.0242          | <u>B J</u>   | 0.0198  | 0.250    | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Phenanthrene          | U               |              | 0.00820 | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| Pyrene                | U               |              | 0.0117  | 0.0500   | 1        | 02/05/2018 03:45 | WG1069935  |        |
| 1-Methylnaphthalene   | U               |              | 0.00821 | 0.250    | 1        | 02/05/2018 03:45 | WG1069935  |        |
| 2-Methylnaphthalene   | U               |              | 0.00902 | 0.250    | 1        | 02/05/2018 03:45 | WG1069935  |        |
| 2-Chloronaphthalene   | U               |              | 0.00647 | 0.250    | 1        | 02/05/2018 03:45 | WG1069935  |        |
| (S) Nitrobenzene-d5   | 93.0            |              |         | 31.0-160 |          | 02/05/2018 03:45 | WG1069935  |        |
| Docume                | ent No: J1-680- | RGL-GRI-0000 | 1-00    | Revi     | ision: 1 |                  | Reissued f | or Use |

ACCOUNT: GRI - Beaverton, OR PROJECT: 5764-1195 SDG: L967603

Reissued for U

02/07/18 17:58

PAGE: 16 of 52

| FO-111-W             |          |       |
|----------------------|----------|-------|
| Collected date/time: | 01/31/18 | 09:20 |

## SAMPLE RESULTS - 04

ONE LAB. NATIONWIDE.

- N

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

|                      | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch            | Ср       |
|----------------------|--------|-----------|------|----------|----------|------------------|------------------|----------|
| Analyte              | ug/l   |           | ug/l | ug/l     |          | date / time      |                  |          |
| (S) 2-Fluorobiphenyl | 120    |           |      | 48.0-148 |          | 02/05/2018 03:45 | <u>WG1069935</u> | $^{2}Tc$ |
| (S) p-Terphenyl-d14  | 108    |           |      | 37.0-146 |          | 02/05/2018 03:45 | WG1069935        |          |

| <sup>3</sup> Ss |
|-----------------|
| <sup>4</sup> Cn |
| ⁵Sr             |
| <sup>6</sup> Qc |
| <sup>7</sup> Gl |
| <sup>8</sup> AI |
| ⁰Sc             |

| Document No: J1-680 | )-RGL-GRI-00001-00 |
|---------------------|--------------------|
| ACCOUNT:            |                    |
| GRI - Beaverton, OR |                    |

Reissued for Use DATE/TIME: 02/07/18 17:58

#### SAMPLE RESULTS - 05 L967603



## Volatile Organic Compounds (GC) by Method NWTPHGX

|                          | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch     |
|--------------------------|--------|-----------|------|----------|----------|------------------|-----------|
| /te                      | ug/l   |           | ug/l | ug/l     |          | date / time      |           |
| line Range<br>nics-NWTPH | 92.9   | J         | 31.6 | 100      | 1        | 02/04/2018 23:23 | WG1069970 |
| -Trifluorotoluene(FID)   | 102    |           |      | 77.0-122 |          | 02/04/2018 23:23 | WG1069970 |

## Volatile Organic Compounds (GC/MS) by Method 8260B

|                            | Result     | Qualifier           | MDL   | RDL       | Dilution | Analysis         | Batch          | L                                     |
|----------------------------|------------|---------------------|-------|-----------|----------|------------------|----------------|---------------------------------------|
| Analyte                    | ug/l       |                     | ug/l  | ug/l      |          | date / time      |                | 5                                     |
| Acetone                    | U          |                     | 10.0  | 50.0      | 1        | 02/04/2018 04:00 | WG1069715      | 5                                     |
| Acrolein                   | U          | <u>J4</u>           | 8.87  | 50.0      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Acrylonitrile              | U          |                     | 1.87  | 10.0      | 1        | 02/04/2018 04:00 | WG1069715      | 6                                     |
| Benzene                    | U          |                     | 0.331 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Bromobenzene               | U          |                     | 0.352 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      | 7                                     |
| Bromodichloromethane       | U          |                     | 0.380 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      | · · · · · · · · · · · · · · · · · · · |
| Bromoform                  | U          |                     | 0.469 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Bromomethane               | U          | <u>J3</u>           | 0.866 | 5.00      | 1        | 02/04/2018 04:00 | WG1069715      | 8                                     |
| n-Butylbenzene             | U          | _                   | 0.361 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| ec-Butylbenzene            | U          |                     | 0.365 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      | 9                                     |
| ert-Butylbenzene           | U          |                     | 0.399 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Carbon tetrachloride       | U          |                     | 0.379 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      | L                                     |
| Chlorobenzene              | U          |                     | 0.348 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Chlorodibromomethane       | U          |                     | 0.348 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Chloroethane               | U          | 13                  | 0.453 | 5.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Chloroform                 | U          | <u>J3</u>           | 0.324 | 5.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| Chloromethane              | U          | 13 14               | 0.324 | 2.50      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| -Chlorotoluene             | U          | <u>J3 J4</u>        | 0.276 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
|                            | U          |                     |       | 1.00      |          |                  | WG1069715      |                                       |
| -Chlorotoluene             |            |                     | 0.351 |           | 1        | 02/04/2018 04:00 |                |                                       |
| 2-Dibromo-3-Chloropropane  | U          |                     | 1.33  | 5.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 2-Dibromoethane            | U          |                     | 0.381 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| ibromomethane              | U          |                     | 0.346 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 2-Dichlorobenzene          | U          |                     | 0.349 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 3-Dichlorobenzene          | U          |                     | 0.220 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 4-Dichlorobenzene          | U          |                     | 0.274 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| ichlorodifluoromethane     | U          |                     | 0.551 | 5.00      | 1        | 02/06/2018 22:02 | WG1069715      |                                       |
| 1-Dichloroethane           | U          |                     | 0.259 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 2-Dichloroethane           | U          |                     | 0.361 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| ,1-Dichloroethene          | U          | <u>J3</u>           | 0.398 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| is-1,2-Dichloroethene      | U          |                     | 0.260 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| ans-1,2-Dichloroethene     | U          |                     | 0.396 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 2-Dichloropropane          | U          |                     | 0.306 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 1-Dichloropropene          | U          |                     | 0.352 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| 3-Dichloropropane          | U          |                     | 0.366 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| is-1,3-Dichloropropene     | U          |                     | 0.418 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| ans-1,3-Dichloropropene    | U          |                     | 0.419 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| ,2-Dichloropropane         | U          | <u>J3</u>           | 0.321 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| i-isopropyl ether          | U          |                     | 0.320 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| thylbenzene                | U          |                     | 0.384 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| lexachloro-1,3-butadiene   | U          |                     | 0.256 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| opropylbenzene             | U          |                     | 0.326 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| -Isopropyltoluene          | U          |                     | 0.350 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| -Butanone (MEK)            | U          |                     | 3.93  | 10.0      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| lethylene Chloride         | U          |                     | 1.00  | 5.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| -Methyl-2-pentanone (MIBK) | U          |                     | 2.14  | 10.0      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| lethyl tert-butyl ether    | U          |                     | 0.367 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| laphthalene                | 24.9       |                     | 1.00  | 5.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
| -Propylbenzene             | 0.686      | J                   | 0.349 | 1.00      | 1        | 02/04/2018 04:00 | WG1069715      |                                       |
|                            |            | _<br>)-RGL-GRI-0000 |       |           | ision: 1 |                  | Reissued for U | Jse                                   |
| ACCO                       | -          |                     |       | PROJECT:  |          | SDG:             | DATE/TIME:     | PAGE:                                 |
|                            | verton, OR |                     |       | 5764-1195 |          | L967603          | 02/07/18 17:58 | 18 of 52                              |

### SAMPLE RESULTS - 05 L967603



#### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result | Qualifier    | MDL   | RDL      | Dilution | Analysis         | Batch     |   |
|--------------------------------|--------|--------------|-------|----------|----------|------------------|-----------|---|
| Analyte                        | ug/l   |              | ug/l  | ug/l     |          | date / time      |           | L |
| Styrene                        | U      |              | 0.307 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,1,1,2-Tetrachloroethane      | U      |              | 0.385 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,1,2,2-Tetrachloroethane      | U      |              | 0.130 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 | E |
| 1,1,2-Trichlorotrifluoroethane | U      | <u>J3</u>    | 0.303 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| Tetrachloroethene              | U      |              | 0.372 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 | L |
| Toluene                        | U      |              | 0.412 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,2,3-Trichlorobenzene         | U      |              | 0.230 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,2,4-Trichlorobenzene         | U      |              | 0.355 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,1,1-Trichloroethane          | U      |              | 0.319 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,1,2-Trichloroethane          | U      |              | 0.383 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| Trichloroethene                | U      |              | 0.398 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| Trichlorofluoromethane         | U      | <u>J3</u>    | 1.20  | 5.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,2,3-Trichloropropane         | U      |              | 0.807 | 2.50     | 1        | 02/04/2018 04:00 | WG1069715 | Г |
| 1,2,4-Trimethylbenzene         | U      |              | 0.373 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| 1,2,3-Trimethylbenzene         | U      |              | 0.321 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 | L |
| 1,3,5-Trimethylbenzene         | U      |              | 0.387 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| Vinyl chloride                 | U      | <u>J3 J4</u> | 0.259 | 1.00     | 1        | 02/04/2018 04:00 | WG1069715 |   |
| Xylenes, Total                 | U      |              | 1.06  | 3.00     | 1        | 02/04/2018 04:00 | WG1069715 | E |
| (S) Toluene-d8                 | 104    |              |       | 80.0-120 |          | 02/04/2018 04:00 | WG1069715 |   |
| (S) Toluene-d8                 | 95.5   |              |       | 80.0-120 |          | 02/06/2018 22:02 | WG1069715 | L |
| (S) Dibromofluoromethane       | 88.9   |              |       | 76.0-123 |          | 02/04/2018 04:00 | WG1069715 |   |
| (S) Dibromofluoromethane       | 95.4   |              |       | 76.0-123 |          | 02/06/2018 22:02 | WG1069715 |   |
| (S) 4-Bromofluorobenzene       | 101    |              |       | 80.0-120 |          | 02/06/2018 22:02 | WG1069715 |   |
| (S) 4-Bromofluorobenzene       | 97.8   |              |       | 80.0-120 |          | 02/04/2018 04:00 | WG1069715 |   |

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

|                               | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch     |
|-------------------------------|--------|-----------|------|----------|----------|------------------|-----------|
| Analyte                       | ug/l   |           | ug/l | ug/l     |          | date / time      |           |
| Diesel Range Organics (DRO)   | 1340   |           | 33.0 | 100      | 1        | 02/05/2018 21:12 | WG1069801 |
| Residual Range Organics (RRO) | 1250   |           | 82.5 | 250      | 1        | 02/05/2018 21:12 | WG1069801 |
| (S) o-Terphenyl               | 96.2   |           |      | 31.0-160 |          | 02/05/2018 21:12 | WG1069801 |

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

|                        | Result         | Qualifier     | MDL    | RDL      | Dilution  | Analysis         | Batch            |  |
|------------------------|----------------|---------------|--------|----------|-----------|------------------|------------------|--|
| Analyte                | ug/l           |               | ug/l   | ug/l     |           | date / time      |                  |  |
| Anthracene             | 0.436          |               | 0.0700 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Acenaphthene           | 4.39           |               | 0.0500 | 0.250    | 5         | 02/05/2018 09:37 | <u>WG1069935</u> |  |
| Acenaphthylene         | U              |               | 0.0600 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Benzo(a)anthracene     | U              |               | 0.0205 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Benzo(a)pyrene         | U              |               | 0.0580 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Benzo(b)fluoranthene   | 0.0140         | <u>B J</u>    | 0.0106 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Benzo(g,h,i)perylene   | 0.0260         | <u>B J</u>    | 0.0114 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Benzo(k)fluoranthene   | U              |               | 0.0680 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Chrysene               | U              |               | 0.0540 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Dibenz(a,h)anthracene  | U              |               | 0.0198 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Fluoranthene           | U              |               | 0.0785 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Fluorene               | 3.45           |               | 0.0425 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Indeno(1,2,3-cd)pyrene | U              |               | 0.0740 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Naphthalene            | 42.3           |               | 0.0990 | 1.25     | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Phenanthrene           | 4.10           |               | 0.0410 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| Pyrene                 | 0.159          | J             | 0.0585 | 0.250    | 5         | 02/05/2018 09:37 | WG1069935        |  |
| 1-Methylnaphthalene    | 103            |               | 0.0410 | 1.25     | 5         | 02/05/2018 09:37 | WG1069935        |  |
| 2-Methylnaphthalene    | 95.5           |               | 0.0451 | 1.25     | 5         | 02/05/2018 09:37 | <u>WG1069935</u> |  |
| 2-Chloronaphthalene    | U              |               | 0.0324 | 1.25     | 5         | 02/05/2018 09:37 | WG1069935        |  |
| (S) Nitrobenzene-d5    | 81.0           |               |        | 31.0-160 |           | 02/05/2018 09:37 | WG1069935        |  |
| Docume                 | ent No: 11-680 | -RGL-GRI-0000 | 1-00   | Rev      | rision: 1 |                  | Reissued for Use |  |

ACCOUNT: GRI - Beaverton, OR

PROJECT:

5764-1195

L967603

SDG:

DATE/TIME:

02/07/18 17:58

PAGE: 19 of 52

| BP-119-W             |                |  |
|----------------------|----------------|--|
| Collected date/time: | 01/31/18 15:30 |  |

## SAMPLE RESULTS - 05

ONE LAB. NATIONWIDE.

\*

Ss

Cn

Qc

Gl

ΆI

Sc

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

|                      | Result | Qualifier | MDL  | RDL      | Dilution | Analysis         | Batch     | (C             | Ср |
|----------------------|--------|-----------|------|----------|----------|------------------|-----------|----------------|----|
| Analyte              | ug/l   |           | ug/l | ug/l     |          | date / time      |           |                |    |
| (S) 2-Fluorobiphenyl | 100    |           |      | 48.0-148 |          | 02/05/2018 09:37 | WG1069935 | <sup>2</sup> T | Тс |
| (S) p-Terphenyl-d14  | 77.5   |           |      | 37.0-146 |          | 02/05/2018 09:37 | WG1069935 |                |    |

#### Sample Narrative:

L967603-05 WG1069935: Dilution due to matrix

| Document No: J1-680-RGL-GRI-00001-00 |
|--------------------------------------|
| ACCOUNT:                             |
| GRI - Beaverton, OR                  |

Reissued for Use DATE/TIME: 02/07/18 17:58

#### SAMPLE RESULTS - 06 L967603

ONE LAB. NATIONWIDE.

#### Total Solids by Method 2540 G-2011

| Total Solids by Method 2540 G-2011 |        |           |          |                  |           |  |    |   |
|------------------------------------|--------|-----------|----------|------------------|-----------|--|----|---|
|                                    | Result | Qualifier | Dilution | Analysis         | Batch     |  | Ср | l |
| Analyte                            | %      |           |          | date / time      |           |  | 2  | i |
| Total Solids                       | 89.6   |           | 1        | 02/06/2018 14:43 | WG1070464 |  | Tc | L |

## Volatile Organic Compounds (GC) by Method NWTPHGX

| Analyte                         | %  |            | date      | / time                     |          |                  |           | 2               |  |  |  |
|---------------------------------|--|------------|-----------|----------------------------|----------|------------------|-----------|-----------------|--|--|--|
| Total Solids                    | 89.6   |            | 1 02/0    | 02/06/2018 14:43 WG1070464 |          |                  |           | Tc              |  |  |  |
| Volatile Organic Comp           | ounds (GC) b                                       | y Method I | NWTPHG>   | <                          |          |                  |           | <sup>3</sup> Ss |  |  |  |
|                                 | Result (dry)                                       | Qualifier  | MDL (dry) | RDL (dry)                  | Dilution | Analysis         | Batch     |                 |  |  |  |
| Analyte                         | mg/kg  |            | mg/kg     | mg/kg                      |          | date / time      |           | <sup>4</sup> Cn |  |  |  |
| Gasoline Range Organics-NWTPH   | 161  |            | 3.79      | 11.2                       | 100      | 02/05/2018 20:39 | WG1069747 |                 |  |  |  |
| (S) a,a,a-Trifluorotoluene(FID) | 101  |            |           | 77.0-120                   |          | 02/05/2018 20:39 | WG1069747 | 5               |  |  |  |
|                                 |  |            |           |                            |          |                  |           | ⁵Sr             |  |  |  |
| Volatile Organic Comp           | Volatile Organic Compounds (GC/MS) by Method 8260B |            |           |                            |          |                  |           |                 |  |  |  |
|                                 | Result (dry)                                       | Qualifier  | MDL (dry) | RDL (dry)                  | Dilution | Analysis         | Batch     | <sup>6</sup> Qc |  |  |  |

## Volatile Organic Compounds (GC/MS) by Method 8260B

|                             | Result (dry)    | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch          | ်ီပူင           |
|-----------------------------|-----------------|-----------|-----------|-------------|----------|------------------|----------------|-----------------|
| Analyte                     | mg/kg           |           | mg/kg     | mg/kg       |          | date / time      |                |                 |
| Acetone                     | U               |           | 1.12      | 5.58        | 100      | 02/03/2018 23:18 | WG1069771      | <sup>7</sup> Gl |
| Acrylonitrile               | U               |           | 0.200     | 1.12        | 100      | 02/03/2018 23:18 | WG1069771      | UI              |
| Benzene                     | U               |           | 0.0301    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      | 8               |
| Bromobenzene                | U               |           | 0.0317    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      | ĨAĨ             |
| Bromodichloromethane        | U               |           | 0.0284    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Bromoform                   | U               |           | 0.0473    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      | °Sc             |
| Bromomethane                | U               |           | 0.150     | 0.558       | 100      | 02/03/2018 23:18 | WG1069771      | 50              |
| n-Butylbenzene              | 0.751           |           | 0.0288    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| sec-Butylbenzene            | 0.101           | J         | 0.0224    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| tert-Butylbenzene           | U               |           | 0.0230    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Carbon tetrachloride        | U               |           | 0.0366    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Chlorobenzene               | U               |           | 0.0237    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Chlorodibromomethane        | U               |           | 0.0416    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Chloroethane                | U               |           | 0.106     | 0.558       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Chloroform                  | U               |           | 0.0256    | 0.558       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Chloromethane               | U               |           | 0.0419    | 0.279       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 2-Chlorotoluene             | U               |           | 0.0336    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 4-Chlorotoluene             | U               |           | 0.0268    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,2-Dibromo-3-Chloropropane | U               |           | 0.117     | 0.558       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,2-Dibromoethane           | U               |           | 0.0383    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Dibromomethane              | U               |           | 0.0427    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,2-Dichlorobenzene         | U               |           | 0.0341    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,3-Dichlorobenzene         | U               |           | 0.0267    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,4-Dichlorobenzene         | U               |           | 0.0252    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Dichlorodifluoromethane     | U               |           | 0.0796    | 0.558       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,1-Dichloroethane          | U               |           | 0.0222    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,2-Dichloroethane          | U               |           | 0.0296    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,1-Dichloroethene          | U               |           | 0.0338    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| cis-1,2-Dichloroethene      | U               |           | 0.0262    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| trans-1,2-Dichloroethene    | U               |           | 0.0295    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,2-Dichloropropane         | U               |           | 0.0400    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,1-Dichloropropene         | U               |           | 0.0354    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 1,3-Dichloropropane         | U               |           | 0.0231    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| cis-1,3-Dichloropropene     | U               |           | 0.0293    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| trans-1,3-Dichloropropene   | U               | <u>J4</u> | 0.0298    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 2,2-Dichloropropane         | U               |           | 0.0312    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Di-isopropyl ether          | U               |           | 0.0277    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Ethylbenzene                | 0.0402          | J         | 0.0332    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Hexachloro-1,3-butadiene    | U               |           | 0.0382    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Isopropylbenzene            | 0.0773          | J         | 0.0271    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| p-lsopropyltoluene          | 0.0310          | J         | 0.0228    | 0.112       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 2-Butanone (MEK)            | U               |           | 0.523     | 1.12        | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Methylene Chloride          | U               |           | 0.112     | 0.558       | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| 4-Methyl-2-pentanone (MIBK) | U               |           | 0.210     | 1.12        | 100      | 02/03/2018 23:18 | WG1069771      |                 |
| Document No: J              | 1-680-RGL-GRI-0 | 00001-00  | F         | Revision: 1 |          |                  | Reissued for   | Use             |
| ACCOUNT:                    |                 |           | PROJECT:  |             | SDG      | :                | DATE/TIME:     | PAGE:           |
| GRI - Beaverton,            | OR              |           | 5764-1195 |             | L9676    | 03               | 02/07/18 17:58 | 21 of 52        |

Collected date/time: 01/31/18 15:55

## SAMPLE RESULTS - 06



### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |   |
|--------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|---|
| Analyte                        | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           | L |
| Methyl tert-butyl ether        | U            |           | 0.0237    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 | : |
| Naphthalene                    | 12.7         |           | 0.112     | 0.558     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| n-Propylbenzene                | 0.549        |           | 0.0230    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 | 5 |
| Styrene                        | U            |           | 0.0261    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| 1,1,1,2-Tetrachloroethane      | U            |           | 0.0295    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 | L |
| 1,1,2,2-Tetrachloroethane      | U            |           | 0.0408    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 | • |
| 1,1,2-Trichlorotrifluoroethane | U            |           | 0.0408    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| Tetrachloroethene              | U            |           | 0.0308    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| Toluene                        | U            |           | 0.0485    | 0.558     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| 1,2,3-Trichlorobenzene         | U            |           | 0.0342    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| 1,2,4-Trichlorobenzene         | U            |           | 0.0433    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| 1,1,1-Trichloroethane          | U            |           | 0.0319    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| 1,1,2-Trichloroethane          | U            |           | 0.0309    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 | F |
| Trichloroethene                | U            |           | 0.0312    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| Trichlorofluoromethane         | U            |           | 0.0427    | 0.558     | 100      | 02/03/2018 23:18 | WG1069771 | L |
| 1,2,3-Trichloropropane         | U            |           | 0.0827    | 0.279     | 100      | 02/03/2018 23:18 | WG1069771 | 8 |
| 1,2,4-Trimethylbenzene         | 0.0239       | J         | 0.0236    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| 1,2,3-Trimethylbenzene         | 0.114        |           | 0.0320    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 | 9 |
| 1,3,5-Trimethylbenzene         | U            |           | 0.0297    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| Vinyl chloride                 | U            |           | 0.0325    | 0.112     | 100      | 02/03/2018 23:18 | WG1069771 | L |
| Xylenes, Total                 | 0.0872       | J         | 0.0779    | 0.335     | 100      | 02/03/2018 23:18 | WG1069771 |   |
| (S) Toluene-d8                 | 98.0         |           |           | 80.0-120  |          | 02/03/2018 23:18 | WG1069771 |   |
| (S) Dibromofluoromethane       | 102          |           |           | 74.0-131  |          | 02/03/2018 23:18 | WG1069771 |   |
| (S) 4-Bromofluorobenzene       | 106          |           |           | 64.0-132  |          | 02/03/2018 23:18 | WG1069771 |   |

#### Sample Narrative:

L967603-06 WG1069771: Non-target and target compounds too high to run at a lower dilution.

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | 27600        | <u>J3</u> | 295       | 893       | 200      | 02/05/2018 17:01 | WG1069926 |
| Residual Range Organics (RRO) | 14000        | <u>J3</u> | 737       | 2230      | 200      | 02/05/2018 17:01 | WG1069926 |
| (S) o-Terphenyl               | 0.000        | <u>J7</u> |           | 18.0-148  |          | 02/05/2018 17:01 | WG1069926 |

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

|                        | Result (dry)       | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch            |  |
|------------------------|--------------------|-----------|-----------|-------------|----------|------------------|------------------|--|
| Analyte                | mg/kg              |           | mg/kg     | mg/kg       |          | date / time      |                  |  |
| Anthracene             | 30.7               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Acenaphthene           | 30.6               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Acenaphthylene         | U                  |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Benzo(a)anthracene     | 5.94               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Benzo(a)pyrene         | 2.27               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Benzo(b)fluoranthene   | 1.15               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Benzo(g,h,i)perylene   | 0.998              |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Benzo(k)fluoranthene   | 0.0605             | Ţ         | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Chrysene               | 10.0               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Dibenz(a,h)anthracene  | 0.275              | Ţ         | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Fluoranthene           | 4.45               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Fluorene               | 28.8               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Indeno(1,2,3-cd)pyrene | 0.179              | J         | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Naphthalene            | 92.0               |           | 0.134     | 1.34        | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Phenanthrene           | 124                |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| Pyrene                 | 28.2               |           | 0.0402    | 0.402       | 60       | 02/04/2018 17:31 | <u>WG1069800</u> |  |
| 1-Methylnaphthalene    | 138                |           | 0.223     | 2.23        | 100      | 02/06/2018 04:14 | WG1069800        |  |
| Document N             | o: J1-680-RGL-GRI- | 00001-00  | F         | Revision: 1 |          | Reissued for Use |                  |  |

 ACCOUNT:
 PROJECT:
 SDG:
 DATE/TIME:
 PAGE:

 GRI - Beaverton, OR
 5764-1195
 L967603
 02/07/18 17:58
 22 of 52

## SAMPLE RESULTS - 06

\*

*Q*c

Gl

Â

Sc

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

|                      | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |                 |
|----------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|-----------------|
| Analyte              | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |                 |
| 2-Methylnaphthalene  | 202          |           | 0.223     | 2.23      | 100      | 02/06/2018 04:14 | WG1069800 | <sup>2</sup> Tc |
| 2-Chloronaphthalene  | U            |           | 0.134     | 1.34      | 60       | 02/04/2018 17:31 | WG1069800 |                 |
| (S) Nitrobenzene-d5  | 143          | <u>J7</u> |           | 14.0-149  |          | 02/04/2018 17:31 | WG1069800 | 3               |
| (S) Nitrobenzene-d5  | 84.7         | <u>J7</u> |           | 14.0-149  |          | 02/06/2018 04:14 | WG1069800 | Šs              |
| (S) 2-Fluorobiphenyl | 128          | <u>J7</u> |           | 34.0-125  |          | 02/06/2018 04:14 | WG1069800 |                 |
| (S) 2-Fluorobiphenyl | 124          | <u>J7</u> |           | 34.0-125  |          | 02/04/2018 17:31 | WG1069800 | <sup>4</sup> Cr |
| (S) p-Terphenyl-d14  | 135          | <u>J7</u> |           | 23.0-120  |          | 02/04/2018 17:31 | WG1069800 | C               |
| (S) p-Terphenyl-d14  | 135          | <u>J7</u> |           | 23.0-120  |          | 02/06/2018 04:14 | WG1069800 | 5               |

| Document No: J1-680-RGL-GRI-00001-00 |  |
|--------------------------------------|--|
| ACCOUNT:                             |  |
| GRI - Beaverton, OR                  |  |

## WG1070464

Total Solids by Method 2540 G-2011

#### QUALITY CONTROL SUMMARY L967603-01,03,06

.

⁴Cn

Sr

Qc

GI

Â

Sc

### Method Blank (MB)

| Method Blank      | (IVIB)         |              |        |        | 1  |
|-------------------|----------------|--------------|--------|--------|----|
| (MB) R3284523-1 ( | 02/06/18 14:43 |              |        |        |    |
|                   | MB Result      | MB Qualifier | MB MDL | MB RDL | 2  |
| Analyte           | %              |              | %      | %      | ~_ |
| Total Solids      | 0.001          |              |        |        |    |
|                   |                |              |        |        | 3  |

### L967090-02 Original Sample (OS) • Duplicate (DUP)

| (OS) L967090-02 02/06 | 6/18 14:43 • (DUF | e) R3284523-3 | ; 02/06/18 | 14:43   |               |                   |
|-----------------------|-------------------|---------------|------------|---------|---------------|-------------------|
|                       | Original Resul    | DUP Result    | Dilution   | DUP RPD | DUP Qualifier | DUP RPD<br>Limits |
| Analyte               | %                 | %             |            | %       |               | %                 |
| Total Solids          | 68.1              | 68.3          | 1          | 0       |               | 5                 |

## Laboratory Control Sample (LCS)

| (LCS) R3284523-2 02 | LCS) R3284523-2 02/06/18 14:43 |            |          |             |               |  |  |  |  |  |  |
|---------------------|--------------------------------|------------|----------|-------------|---------------|--|--|--|--|--|--|
|                     | Spike Amount                   | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |  |  |  |  |  |  |
| Analyte             | %                              | %          | %        | %           |               |  |  |  |  |  |  |
| Total Solids        | 50.0                           | 50.0       | 100      | 85-115      |               |  |  |  |  |  |  |

| Document No: J1-680-RGL-GRI-00001-00 | F         | Revision: 1 | R              | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L967603     | 02/07/18 17:58 | 24 of 52        |

## WG1069747

Volatile Organic Compounds (GC) by Method NWTPHGX

#### QUALITY CONTROL SUMMARY L967603-01,03,06

<sup>4</sup>Cn

Sr

<sup>°</sup>Qc

GI

Â

Sc

## Method Blank (MB)

| HG C6 - C12 U 0.0339 0.100   | ivietnoù Blank (ivie               | 5)         |              |        |          |  |  |
|--|------------------------------------|------------|--------------|--------|----------|--|--|
| alyte         mg/kg         mg/kg         mg/kg           HG C6 - C12         U         0.0339         0.100 | MB) R3284327-3 02/05               | 5/18 14:06 |              |        |          |  |  |
| HG C6 - C12 U 0.0339 0.100   |                                    | MB Result  | MB Qualifier | MB MDL | MB RDL   |  |  |
|  | Analyte                            | mg/kg      |              | mg/kg  | mg/kg    |  |  |
| S) 102 77.0-120  | TPHG C6 - C12                      | U          |              | 0.0339 | 0.100    |  |  |
|  | (S)<br>a,a,a-Trifluorotoluene(FID) | 102        |              |        | 77.0-120 |  |  |

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

| (LCS) R3284327-1 02/05/            | /18 12:58 • (LCSI | D) R3284327-2 | 2 02/05/18 13:1 | 9        |           |             |               |                |      |            |
|------------------------------------|-------------------|---------------|-----------------|----------|-----------|-------------|---------------|----------------|------|------------|
|                                    | Spike Amount      | LCS Result    | LCSD Result     | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |
| Analyte                            | mg/kg             | mg/kg         | mg/kg           | %        | %         | %           |               |                | %    | %          |
| TPHG C6 - C12                      | 5.50              | 4.30          | 4.16            | 78.3     | 75.6      | 70.0-133    |               |                | 3.47 | 20         |
| (S)<br>a,a,a-Trifluorotoluene(FID) |                   |               |                 | 101      | 100       | 77.0-120    |               |                |      |            |

#### L967411-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L967411-02 02/05/18           | 3 15:21 • (MS) R3 | 284327-4 02/    | 05/18 22:07 • | (MSD) R32843 | 27-5 02/05/18 | 22:29    |          |             |              |               |      |            | - L |
|------------------------------------|-------------------|-----------------|---------------|--------------|---------------|----------|----------|-------------|--------------|---------------|------|------------|-----|
|                                    | Spike Amount      | Original Result | MS Result     | MSD Result   | MS Rec.       | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD  | RPD Limits | ç   |
| Analyte                            | mg/kg             | mg/kg           | mg/kg         | mg/kg        | %             | %        |          | %           |              |               | %    | %          |     |
| TPHG C6 - C12                      | 5.50              | 91.7            | 213           | 204          | 88.5          | 81.8     | 25       | 10.0-146    |              |               | 4.39 | 30         |     |
| (S)<br>a,a,a-Trifluorotoluene(FID) |                   |                 |               |              | 99.0          | 99.1     |          | 77.0-120    |              |               |      |            |     |

| Document No: J1-680-RGL-GRI-00001-00 |           | Revision: 1 | R              | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L967603     | 02/07/18 17:58 | 25 of 52        |

## WG1069970

Volatile Organic Compounds (GC) by Method NWTPHGX

#### QUALITY CONTROL SUMMARY L967603-02,04,05

ONE LAB. NATIONWIDE.

Sr

Qc

GI

A

Sc

### Method Blank (MB)

| Method Blank (ME                   | ∃)        |              |        |          |  | <sup>1</sup> Cp |
|------------------------------------|-----------|--------------|--------|----------|--|-----------------|
| (MB) R3284123-3 02/04/18 18:43     |           |              |        |          |  |                 |
|                                    | MB Result | MB Qualifier | MB MDL | MB RDL   |  | 2               |
| Analyte                            | ug/l      |              | ug/l   | ug/l     |  | ⁻Tc             |
| Gasoline Range<br>Organics-NWTPH   | U         |              | 31.6   | 100      |  | 3               |
| (S)<br>a,a,a-Trifluorotoluene(FID) | 102       |              |        | 77.0-122 |  | Ss              |
|                                    |           |              |        |          |  | <sup>4</sup> Cn |

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

| (LCS) R3284123-1 02/04/18 17:34 • (LCSD) R3284123-2 02/04/18 17:57 |              |            |             |          |           |             |               |                |      |            |
|--|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|
|  | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |
| Analyte  | ug/l         | ug/l       | ug/l        | %        | %         | %           |               |                | %    | %          |
| Gasoline Range<br>Organics-NWTPH                                   | 5500         | 4830       | 4910        | 87.9     | 89.3      | 72.0-134    |               |                | 1.59 | 20         |
| (S)<br>a,a,a-Trifluorotoluene(FID)                                 |              |            |             | 101      | 101       | 77.0-122    |               |                |      |            |

| Document No: J1-680-RGL-GRI-00001-00 | ٩<br>٩    | Revision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L967603     | 02/07/18 17:58 | 26 of 52        |

## WG1069715

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

## QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

-

## Method Blank (MB)

| Method Blank (MB)<br>(MB) R3284308-3 02/03/    |                   |               |                |                |             |                |                  | Ср              |
|--|-------------------|---------------|----------------|----------------|-------------|----------------|------------------|-----------------|
| (MB) R3284308-3 02/03/                         |                   | MD Qualifiar  |                |                |             |                |                  |                 |
| Analyte  | MB Result<br>ug/l | MB Qualifier  | MB MDL<br>ug/l | MB RDL<br>ug/l |             |                |                  | <sup>2</sup> Tc |
| Acetone  | U                 |               | 10.0           | 50.0           |             |                |                  |                 |
| Acrolein                                       | U                 |               | 8.87           | 50.0           |             |                |                  | <sup>3</sup> Cc |
| Acrylonitrile                                  | U                 |               | 1.87           | 10.0           |             |                |                  | ິSs             |
| Benzene  | U                 |               | 0.331          | 1.00           |             |                |                  | 4               |
| Bromobenzene                                   | U                 |               | 0.352          | 1.00           |             |                |                  | <sup>°</sup> Cn |
| Bromodichloromethane                           | U                 |               | 0.380          | 1.00           |             |                |                  |                 |
| Bromoform                                      | U                 |               | 0.469          | 1.00           |             |                |                  | <sup>5</sup> Sr |
| Bromomethane                                   | U                 |               | 0.866          | 5.00           |             |                |                  |                 |
| n-Butylbenzene                                 | U                 |               | 0.361          | 1.00           |             |                |                  | 6               |
| sec-Butylbenzene                               | U                 |               | 0.365          | 1.00           |             |                |                  | <sup>6</sup> Qc |
| tert-Butylbenzene                              | U                 |               | 0.399          | 1.00           |             |                |                  |                 |
| Carbon tetrachloride                           | U                 |               | 0.379          | 1.00           |             |                |                  | <sup>7</sup> Gl |
| Chlorobenzene                                  | U                 |               | 0.348          | 1.00           |             |                |                  |                 |
| Chlorodibromomethane                           | U                 |               | 0.327          | 1.00           |             |                |                  | 8               |
| Chloroethane                                   | U                 |               | 0.453          | 5.00           |             |                |                  | A               |
| Chloroform                                     | U                 |               | 0.324          | 5.00           |             |                |                  |                 |
| Chloromethane                                  | U                 |               | 0.276          | 2.50           |             |                |                  | Sc              |
| 2-Chlorotoluene                                | U                 |               | 0.375          | 1.00           |             |                |                  |                 |
| 4-Chlorotoluene                                | U                 |               | 0.351          | 1.00           |             |                |                  |                 |
| 1,2-Dibromo-3-Chloropropane                    |                   |               | 1.33           | 5.00           |             |                |                  |                 |
| 1,2-Dibromoethane                              | U                 |               | 0.381          | 1.00           |             |                |                  |                 |
| Dibromomethane                                 | U                 |               | 0.346          | 1.00           |             |                |                  |                 |
| 1,2-Dichlorobenzene                            | U                 |               | 0.349          | 1.00           |             |                |                  |                 |
| 1,3-Dichlorobenzene                            | U                 |               | 0.220          | 1.00           |             |                |                  |                 |
| 1,4-Dichlorobenzene                            | U                 |               | 0.274          | 1.00           |             |                |                  |                 |
| Dichlorodifluoromethane                        | U                 |               | 0.551          | 5.00           |             |                |                  |                 |
| 1,1-Dichloroethane                             | U                 |               | 0.259          | 1.00           |             |                |                  |                 |
| 1,2-Dichloroethane                             | U                 |               | 0.361          | 1.00           |             |                |                  |                 |
| 1,1-Dichloroethene                             | U                 |               | 0.398          | 1.00           |             |                |                  |                 |
| cis-1,2-Dichloroethene                         | U                 |               | 0.260          | 1.00           |             |                |                  |                 |
| trans-1,2-Dichloroethene                       | U                 |               | 0.396          | 1.00           |             |                |                  |                 |
| 1,2-Dichloropropane                            | U<br>U            |               | 0.306<br>0.352 | 1.00<br>1.00   |             |                |                  |                 |
| 1,1-Dichloropropene                            |                   |               |                |                |             |                |                  |                 |
| 1,3-Dichloropropane<br>cis-1,3-Dichloropropene | U<br>U            |               | 0.366<br>0.418 | 1.00<br>1.00   |             |                |                  |                 |
| trans-1,3-Dichloropropene                      | U                 |               | 0.418          | 1.00           |             |                |                  |                 |
| 2,2-Dichloropropane                            | U                 |               | 0.419          | 1.00           |             |                |                  |                 |
| Di-isopropyl ether                             | U                 |               | 0.321          | 1.00           |             |                |                  |                 |
| Ethylbenzene                                   | U                 |               | 0.320          | 1.00           |             |                |                  |                 |
| Hexachloro-1,3-butadiene                       | U                 |               | 0.256          | 1.00           |             |                |                  |                 |
|  |                   | RGL-GRI-00001 |                |                | Revision: 1 |                | Reissued for Use |                 |
|  | CCOUNT:           |               |                | PROJECT:       | SDG:        | DATE/TIME:     | PAGE:            |                 |
| GRI - E  | Beaverton, OR     |               |                | 5764-1195      | L967603     | 02/07/18 17:58 | 27 of 52         |                 |

## WG1069715

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

## QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

## Method Blank (MB)

| (MB) R3284308-3 02/03/         | 18 21:44  |              |        |          | -   Cp          |
|--------------------------------|-----------|--------------|--------|----------|-----------------|
|                                | MB Result | MB Qualifier | MB MDL | MB RDL   | 2               |
| Analyte                        | ug/l      |              | ug/l   | ug/l     | Tc              |
| Isopropylbenzene               | U         |              | 0.326  | 1.00     |                 |
| p-Isopropyltoluene             | U         |              | 0.350  | 1.00     | <sup>3</sup> Ss |
| 2-Butanone (MEK)               | U         |              | 3.93   | 10.0     | 00              |
| Methylene Chloride             | U         |              | 1.00   | 5.00     | 4               |
| 4-Methyl-2-pentanone (MIBK)    | U         |              | 2.14   | 10.0     | Cn              |
| Methyl tert-butyl ether        | U         |              | 0.367  | 1.00     |                 |
| Naphthalene                    | U         |              | 1.00   | 5.00     | <sup>5</sup> Sr |
| n-Propylbenzene                | U         |              | 0.349  | 1.00     |                 |
| Styrene                        | U         |              | 0.307  | 1.00     | 6               |
| 1,1,1,2-Tetrachloroethane      | U         |              | 0.385  | 1.00     | <sup>6</sup> Qc |
| 1,1,2,2-Tetrachloroethane      | U         |              | 0.130  | 1.00     |                 |
| Tetrachloroethene              | U         |              | 0.372  | 1.00     | <sup>7</sup> Gl |
| Toluene                        | U         |              | 0.412  | 1.00     | Ŭ1              |
| 1,1,2-Trichlorotrifluoroethane | U         |              | 0.303  | 1.00     | 8               |
| 1,2,3-Trichlorobenzene         | U         |              | 0.230  | 1.00     | A               |
| 1,2,4-Trichlorobenzene         | U         |              | 0.355  | 1.00     |                 |
| 1,1,1-Trichloroethane          | U         |              | 0.319  | 1.00     | <sup>9</sup> Sc |
| 1,1,2-Trichloroethane          | U         |              | 0.383  | 1.00     | 00              |
| Trichloroethene                | U         |              | 0.398  | 1.00     |                 |
| Trichlorofluoromethane         | U         |              | 1.20   | 5.00     |                 |
| 1,2,3-Trichloropropane         | U         |              | 0.807  | 2.50     |                 |
| 1,2,3-Trimethylbenzene         | U         |              | 0.321  | 1.00     |                 |
| 1,2,4-Trimethylbenzene         | U         |              | 0.373  | 1.00     |                 |
| 1,3,5-Trimethylbenzene         | U         |              | 0.387  | 1.00     |                 |
| Vinyl chloride                 | U         |              | 0.259  | 1.00     |                 |
| Xylenes, Total                 | U         |              | 1.06   | 3.00     |                 |
| (S) Toluene-d8                 | 103       |              |        | 80.0-120 |                 |
| (S) Dibromofluoromethane       | 88.4      |              |        | 76.0-123 |                 |
| (S) 4-Bromofluorobenzene       | 99.7      |              |        | 80.0-120 |                 |

| (LCS) R3284308-1 02 | 2/03/18 20:48 • (LCS | D) R3284308 | 3-2 02/03/18 21 | :07      |           |             |               |                |      |                |                  |
|---------------------|----------------------|-------------|-----------------|----------|-----------|-------------|---------------|----------------|------|----------------|------------------|
|                     | Spike Amount         | LCS Result  | LCSD Result     | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits     |                  |
| Analyte             | ug/l                 | ug/l        | ug/l            | %        | %         | %           |               |                | %    | %              |                  |
| Acetone             | 125                  | 160         | 145             | 128      | 116       | 10.0-160    |               |                | 10.0 | 23             |                  |
| Acrolein            | 125                  | 359         | 345             | 287      | 276       | 10.0-160    | <u>J4</u>     | <u>J4</u>      | 3.90 | 20             |                  |
| Acrylonitrile       | 125                  | 112         | 106             | 89.6     | 85.0      | 60.0-142    |               |                | 5.22 | 20             |                  |
| Benzene             | 25.0                 | 22.0        | 19.2            | 88.0     | 76.8      | 69.0-123    |               |                | 13.6 | 20             |                  |
| Docum               | nent No: J1-680-RC   | GL-GRI-0000 | 1-00            |          |           | Revision    | : 1           |                |      |                | Reissued for Use |
|                     | ACCOUNT:             |             |                 | PRO      | DJECT:    |             | SDG:          |                |      | DATE/TIME:     | PAGE:            |
| G                   | RI - Beaverton, OR   |             |                 | 576      | 64-1195   |             | L96760        | 03             |      | 02/07/18 17:58 | 28 of 52         |

## QUALITY CONTROL SUMMARY

Ср

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

## (I CS) R3284308-1 02/03/18 20:48 • (I CSD) R3284308-2 02/03/18 21:07

|                             | Spike Amount  | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits     |                  | 2               |
|-----------------------------|---------------|------------|-------------|----------|-----------|-------------|---------------|----------------|------|----------------|------------------|-----------------|
| Analyte                     | ug/l          | ug/l       | ug/l        | %        | %         | %           |               |                | %    | %              |                  | Tc              |
| Bromobenzene                | 25.0          | 22.8       | 20.8        | 91.3     | 83.2      | 79.0-120    |               |                | 9.18 | 20             |                  |                 |
| Bromodichloromethane        | 25.0          | 23.0       | 21.4        | 92.1     | 85.8      | 76.0-120    |               |                | 7.15 | 20             |                  | <sup>3</sup> Ss |
| Bromoform                   | 25.0          | 25.1       | 23.9        | 100      | 95.5      | 67.0-132    |               |                | 4.94 | 20             |                  | 00              |
| Bromomethane                | 25.0          | 21.1       | 17.1        | 84.4     | 68.4      | 18.0-160    |               | <u>J3</u>      | 20.8 | 20             |                  | 4               |
| n-Butylbenzene              | 25.0          | 25.4       | 21.7        | 102      | 86.7      | 72.0-126    |               |                | 15.8 | 20             |                  | <sup>-</sup> Cn |
| sec-Butylbenzene            | 25.0          | 24.6       | 21.2        | 98.3     | 84.9      | 74.0-121    |               |                | 14.7 | 20             |                  |                 |
| tert-Butylbenzene           | 25.0          | 24.9       | 21.4        | 99.7     | 85.8      | 75.0-122    |               |                | 15.0 | 20             |                  | ⁵Sr             |
| Carbon tetrachloride        | 25.0          | 22.9       | 18.7        | 91.6     | 74.9      | 63.0-122    |               |                | 20.0 | 20             |                  |                 |
| Chlorobenzene               | 25.0          | 25.6       | 23.0        | 102      | 91.9      | 79.0-121    |               |                | 10.9 | 20             |                  | 6               |
| Chlorodibromomethane        | 25.0          | 25.2       | 23.8        | 101      | 95.2      | 75.0-125    |               |                | 5.58 | 20             |                  | ଁQc             |
| Chloroethane                | 25.0          | 20.6       | 15.3        | 82.5     | 61.3      | 47.0-152    |               | <u>J3</u>      | 29.6 | 20             |                  |                 |
| Chloroform                  | 25.0          | 22.2       | 19.5        | 88.9     | 78.1      | 72.0-121    |               |                | 13.0 | 20             |                  | <sup>7</sup> Gl |
| Chloromethane               | 25.0          | 18.0       | 10.6        | 71.8     | 42.3      | 48.0-139    |               | <u>J3 J4</u>   | 51.8 | 20             |                  |                 |
| 2-Chlorotoluene             | 25.0          | 23.9       | 21.0        | 95.6     | 84.0      | 74.0-122    |               |                | 13.0 | 20             |                  | 8               |
| 4-Chlorotoluene             | 25.0          | 23.7       | 20.8        | 94.8     | 83.2      | 79.0-120    |               |                | 13.0 | 20             |                  | ĬĂ              |
| 1,2-Dibromo-3-Chloropropane | 25.0          | 24.0       | 23.5        | 95.9     | 93.8      | 64.0-127    |               |                | 2.19 | 20             |                  |                 |
| 1,2-Dibromoethane           | 25.0          | 25.3       | 24.1        | 101      | 96.2      | 77.0-123    |               |                | 4.97 | 20             |                  | <sup>9</sup> Sc |
| Dibromomethane              | 25.0          | 25.0       | 24.0        | 99.8     | 96.1      | 78.0-120    |               |                | 3.83 | 20             |                  | SC              |
| 1,2-Dichlorobenzene         | 25.0          | 24.9       | 22.6        | 99.8     | 90.5      | 80.0-120    |               |                | 9.78 | 20             |                  |                 |
| 1,3-Dichlorobenzene         | 25.0          | 24.6       | 21.8        | 98.6     | 87.3      | 72.0-123    |               |                | 12.1 | 20             |                  |                 |
| 1,4-Dichlorobenzene         | 25.0          | 23.6       | 21.3        | 94.3     | 85.2      | 77.0-120    |               |                | 10.2 | 20             |                  |                 |
| 1,1-Dichloroethane          | 25.0          | 22.1       | 18.8        | 88.4     | 75.3      | 70.0-126    |               |                | 16.0 | 20             |                  |                 |
| 1,2-Dichloroethane          | 25.0          | 21.4       | 20.0        | 85.7     | 79.9      | 67.0-126    |               |                | 6.90 | 20             |                  |                 |
| 1,1-Dichloroethene          | 25.0          | 22.6       | 18.4        | 90.5     | 73.7      | 64.0-129    |               | <u>J3</u>      | 20.5 | 20             |                  |                 |
| cis-1,2-Dichloroethene      | 25.0          | 22.2       | 19.7        | 88.9     | 78.9      | 73.0-120    |               | _              | 11.9 | 20             |                  |                 |
| trans-1,2-Dichloroethene    | 25.0          | 22.4       | 18.8        | 89.7     | 75.0      | 71.0-121    |               |                | 17.8 | 20             |                  |                 |
| 1,2-Dichloropropane         | 25.0          | 23.4       | 21.3        | 93.5     | 85.1      | 75.0-125    |               |                | 9.38 | 20             |                  |                 |
| 1,1-Dichloropropene         | 25.0          | 22.7       | 19.2        | 90.6     | 76.7      | 71.0-129    |               |                | 16.7 | 20             |                  |                 |
| 1,3-Dichloropropane         | 25.0          | 24.5       | 23.4        | 98.1     | 93.8      | 80.0-121    |               |                | 4.55 | 20             |                  |                 |
| cis-1,3-Dichloropropene     | 25.0          | 24.4       | 22.2        | 97.5     | 88.9      | 79.0-123    |               |                | 9.17 | 20             |                  |                 |
| trans-1,3-Dichloropropene   | 25.0          | 26.7       | 24.9        | 107      | 99.6      | 74.0-127    |               |                | 6.86 | 20             |                  |                 |
| 2,2-Dichloropropane         | 25.0          | 23.0       | 18.5        | 91.9     | 74.1      | 60.0-125    |               | <u>J3</u>      | 21.5 | 20             |                  |                 |
| Di-isopropyl ether          | 25.0          | 20.9       | 19.0        | 83.7     | 76.0      | 59.0-133    |               | _              | 9.59 | 20             |                  |                 |
| Ethylbenzene                | 25.0          | 26.0       | 22.8        | 104      | 91.3      | 77.0-120    |               |                | 13.0 | 20             |                  |                 |
| Hexachloro-1,3-butadiene    | 25.0          | 28.2       | 23.4        | 113      | 93.6      | 64.0-131    |               |                | 18.7 | 20             |                  |                 |
| Isopropylbenzene            | 25.0          | 24.8       | 21.3        | 99.3     | 85.2      | 75.0-120    |               |                | 15.3 | 20             |                  |                 |
| p-lsopropyltoluene          | 25.0          | 25.4       | 21.8        | 101      | 87.1      | 74.0-126    |               |                | 15.2 | 20             |                  |                 |
| 2-Butanone (MEK)            | 125           | 140        | 136         | 112      | 109       | 37.0-158    |               |                | 3.06 | 20             |                  |                 |
| Methylene Chloride          | 25.0          | 19.5       | 17.4        | 78.1     | 69.6      | 66.0-121    |               |                | 11.6 | 20             |                  |                 |
| 4-Methyl-2-pentanone (MIBK) | 125           | 123        | 119         | 98.1     | 95.1      | 59.0-143    |               |                | 3.10 | 20             |                  |                 |
|                             | No: J1-680-R0 |            |             |          |           | Revision    | : 1           |                |      |                | Reissued for Use |                 |
| A                           | CCOUNT:       |            |             | PR       | OJECT:    |             | SDG:          |                |      | DATE/TIME:     | PAGE:            |                 |
| GRI - E                     | Beaverton, OR |            |             | 57       | 64-1195   |             | L96760        | )3             |      | 02/07/18 17:58 | 29 of 52         |                 |

## QUALITY CONTROL SUMMARY

Ср

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

#### (LCS) R3284308-1 02/03/18 20:48 • (LCSD) R3284308-2 02/03/18 21:07

|                                | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |  |
|--------------------------------|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|--|
| Analyte                        | ug/l         | ug/l       | ug/l        | %        | %         | %           |               |                | %    | %          |  |
| Methyl tert-butyl ether        | 25.0         | 21.5       | 19.9        | 85.8     | 79.7      | 64.0-123    |               |                | 7.36 | 20         |  |
| Naphthalene                    | 25.0         | 24.4       | 22.9        | 97.6     | 91.6      | 62.0-128    |               |                | 6.29 | 20         |  |
| n-Propylbenzene                | 25.0         | 25.0       | 21.7        | 100      | 86.7      | 79.0-120    |               |                | 14.5 | 20         |  |
| Styrene                        | 25.0         | 25.0       | 22.5        | 99.8     | 90.1      | 78.0-124    |               |                | 10.3 | 20         |  |
| 1,1,1,2-Tetrachloroethane      | 25.0         | 25.6       | 23.4        | 102      | 93.8      | 75.0-122    |               |                | 8.88 | 20         |  |
| 1,1,2,2-Tetrachloroethane      | 25.0         | 23.3       | 22.5        | 93.2     | 89.9      | 71.0-122    |               |                | 3.69 | 20         |  |
| Tetrachloroethene              | 25.0         | 26.4       | 23.3        | 106      | 93.1      | 70.0-127    |               |                | 12.6 | 20         |  |
| Toluene                        | 25.0         | 24.8       | 21.5        | 99.1     | 85.8      | 77.0-120    |               |                | 14.3 | 20         |  |
| 1,1,2-Trichlorotrifluoroethane | 25.0         | 24.4       | 19.6        | 97.7     | 78.3      | 61.0-136    |               | <u>J3</u>      | 22.1 | 20         |  |
| 1,2,3-Trichlorobenzene         | 25.0         | 26.5       | 23.9        | 106      | 95.6      | 61.0-133    |               |                | 10.4 | 20         |  |
| 1,2,4-Trichlorobenzene         | 25.0         | 26.4       | 24.1        | 106      | 96.3      | 69.0-129    |               |                | 9.37 | 20         |  |
| 1,1,1-Trichloroethane          | 25.0         | 23.2       | 19.7        | 92.6     | 78.6      | 68.0-122    |               |                | 16.4 | 20         |  |
| 1,1,2-Trichloroethane          | 25.0         | 25.1       | 23.7        | 101      | 94.7      | 78.0-120    |               |                | 5.97 | 20         |  |
| Trichloroethene                | 25.0         | 25.8       | 22.1        | 103      | 88.5      | 78.0-120    |               |                | 15.3 | 20         |  |
| Trichlorofluoromethane         | 25.0         | 24.2       | 18.4        | 96.7     | 73.6      | 56.0-137    |               | <u>J3</u>      | 27.1 | 20         |  |
| 1,2,3-Trichloropropane         | 25.0         | 24.6       | 23.3        | 98.4     | 93.3      | 72.0-124    |               |                | 5.29 | 20         |  |
| 1,2,3-Trimethylbenzene         | 25.0         | 24.1       | 21.5        | 96.4     | 86.2      | 75.0-120    |               |                | 11.2 | 20         |  |
| 1,2,4-Trimethylbenzene         | 25.0         | 23.9       | 21.5        | 95.5     | 86.0      | 75.0-120    |               |                | 10.5 | 20         |  |
| 1,3,5-Trimethylbenzene         | 25.0         | 23.9       | 21.1        | 95.7     | 84.3      | 75.0-120    |               |                | 12.6 | 20         |  |
| Vinyl chloride                 | 25.0         | 22.6       | 14.0        | 90.5     | 56.0      | 64.0-133    |               | <u>J3 J4</u>   | 47.0 | 20         |  |
| Xylenes, Total                 | 75.0         | 76.7       | 68.1        | 102      | 90.8      | 77.0-120    |               |                | 11.9 | 20         |  |
| (S) Toluene-d8                 |              |            |             | 101      | 101       | 80.0-120    |               |                |      |            |  |
| (S) Dibromofluoromethane       |              |            |             | 87.6     | 87.9      | 76.0-123    |               |                |      |            |  |
| (S) 4-Bromofluorobenzene       |              |            |             | 96.9     | 97.2      | 80.0-120    |               |                |      |            |  |

| LCS) R3284396-1 02/06/18 13:57 • (LCSD) R3284396-2 02/06/18 14:17 |              |            |             |          |           |             |               |                |      |            |  |  |
|---|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|--|--|
|   | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |  |  |
| Analyte   | ug/l         | ug/l       | ug/l        | %        | %         | %           |               |                | %    | %          |  |  |
| Dichlorodifluoromethane   | 25.0         | 25.9       | 25.1        | 104      | 100       | 49.0-155    |               |                | 3.34 | 20         |  |  |
| (S) Toluene-d8  |              |            |             | 99.8     | 99.2      | 80.0-120    |               |                |      |            |  |  |
| (S) Dibromofluoromethane  |              |            |             | 93.6     | 91.9      | 76.0-123    |               |                |      |            |  |  |
| (S) 4-Bromofluorobenzene  |              |            |             | 107      | 107       | 80.0-120    |               |                |      |            |  |  |

| Document No: J1-680-RGL-GRI-00001-00 |           | Revision: 1 | R              | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L967603     | 02/07/18 17:58 | 30 of 52        |

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

## QUALITY CONTROL SUMMARY L967603-06

## Method Blank (MB)

| (MB) R3284295-3 02/03/      | 18 13:07      |               |          |           |             |         |                |                  |                 |
|-----------------------------|---------------|---------------|----------|-----------|-------------|---------|----------------|------------------|-----------------|
|                             | MB Result     | MB Qualifier  | MB MDL   | MB RDL    |             |         |                |                  | 2               |
| Analyte                     | mg/kg         |               | mg/kg    | mg/kg     |             |         |                |                  | Tc              |
| Acetone                     | U             |               | 0.0100   | 0.0500    |             |         |                |                  |                 |
| Acrylonitrile               | U             |               | 0.00179  | 0.0100    |             |         |                |                  | <sup>3</sup> Ss |
| Benzene                     | U             |               | 0.000270 | 0.00100   |             |         |                |                  | 0.5             |
| Bromobenzene                | U             |               | 0.000284 | 0.00100   |             |         |                |                  | 4               |
| Bromodichloromethane        | U             |               | 0.000254 | 0.00100   |             |         |                |                  | Ċn              |
| Bromoform                   | U             |               | 0.000424 | 0.00100   |             |         |                |                  |                 |
| Bromomethane                | U             |               | 0.00134  | 0.00500   |             |         |                |                  | ⁵Sr             |
| n-Butylbenzene              | U             |               | 0.000258 | 0.00100   |             |         |                |                  | 01              |
| sec-Butylbenzene            | U             |               | 0.000201 | 0.00100   |             |         |                |                  | 6               |
| tert-Butylbenzene           | U             |               | 0.000206 | 0.00100   |             |         |                |                  | ଁQc             |
| Carbon tetrachloride        | U             |               | 0.000328 | 0.00100   |             |         |                |                  |                 |
| Chlorobenzene               | U             |               | 0.000212 | 0.00100   |             |         |                |                  | <sup>7</sup> Gl |
| Chlorodibromomethane        | U             |               | 0.000373 | 0.00100   |             |         |                |                  |                 |
| Chloroethane                | U             |               | 0.000946 | 0.00500   |             |         |                |                  | 8               |
| Chloroform                  | U             |               | 0.000229 | 0.00500   |             |         |                |                  | A               |
| Chloromethane               | U             |               | 0.000375 | 0.00250   |             |         |                |                  |                 |
| 2-Chlorotoluene             | U             |               | 0.000301 | 0.00100   |             |         |                |                  | °Sc             |
| 4-Chlorotoluene             | U             |               | 0.000240 | 0.00100   |             |         |                |                  | 00              |
| 1,2-Dibromo-3-Chloropropane | U             |               | 0.00105  | 0.00500   |             |         |                |                  |                 |
| 1,2-Dibromoethane           | U             |               | 0.000343 | 0.00100   |             |         |                |                  |                 |
| Dibromomethane              | U             |               | 0.000382 | 0.00100   |             |         |                |                  |                 |
| 1,2-Dichlorobenzene         | U             |               | 0.000305 | 0.00100   |             |         |                |                  |                 |
| 1,3-Dichlorobenzene         | U             |               | 0.000239 | 0.00100   |             |         |                |                  |                 |
| 1,4-Dichlorobenzene         | U             |               | 0.000226 | 0.00100   |             |         |                |                  |                 |
| Dichlorodifluoromethane     | U             |               | 0.000713 | 0.00500   |             |         |                |                  |                 |
| 1,1-Dichloroethane          | U             |               | 0.000199 | 0.00100   |             |         |                |                  |                 |
| 1,2-Dichloroethane          | U             |               | 0.000265 | 0.00100   |             |         |                |                  |                 |
| 1,1-Dichloroethene          | U             |               | 0.000303 | 0.00100   |             |         |                |                  |                 |
| cis-1,2-Dichloroethene      | U             |               | 0.000235 | 0.00100   |             |         |                |                  |                 |
| trans-1,2-Dichloroethene    | U             |               | 0.000264 | 0.00100   |             |         |                |                  |                 |
| 1,2-Dichloropropane         | U             |               | 0.000358 | 0.00100   |             |         |                |                  |                 |
| 1,1-Dichloropropene         | U             |               | 0.000317 | 0.00100   |             |         |                |                  |                 |
| 1,3-Dichloropropane         | U             |               | 0.000207 | 0.00100   |             |         |                |                  |                 |
| cis-1,3-Dichloropropene     | U             |               | 0.000262 | 0.00100   |             |         |                |                  |                 |
| trans-1,3-Dichloropropene   | U             |               | 0.000267 | 0.00100   |             |         |                |                  |                 |
| 2,2-Dichloropropane         | U             |               | 0.000279 | 0.00100   |             |         |                |                  |                 |
| Di-isopropyl ether          | U             |               | 0.000248 | 0.00100   |             |         |                |                  |                 |
| Ethylbenzene                | U             |               | 0.000297 | 0.00100   |             |         |                |                  |                 |
| Hexachloro-1,3-butadiene    | U             |               | 0.000342 | 0.00100   |             |         |                |                  |                 |
| Isopropylbenzene            | U             |               | 0.000243 | 0.00100   |             |         |                |                  |                 |
| Document                    | No: J1-680-I  | RGL-GRI-00001 | -00      |           | Revision: 1 |         |                | Reissued for Use |                 |
|                             | CCOUNT:       |               |          | PROJECT:  |             | SDG:    | DATE/TIME:     | PAGE             |                 |
| GRI - E                     | Beaverton, OR |               |          | 5764-1195 |             | L967603 | 02/07/18 17:58 | 31 of 5          | 52              |

## WG1069771

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

## QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

## Method Blank (MB)

| (MB) R3284295-3 02/03/         | 18 13:07  |              |          |          |                 |
|--------------------------------|-----------|--------------|----------|----------|-----------------|
|                                | MB Result | MB Qualifier | MB MDL   | MB RDL   | 2               |
| Analyte                        | mg/kg     |              | mg/kg    | mg/kg    | Tc              |
| p-lsopropyltoluene             | U         |              | 0.000204 | 0.00100  |                 |
| 2-Butanone (MEK)               | U         |              | 0.00468  | 0.0100   | <sup>3</sup> Ss |
| Methylene Chloride             | U         |              | 0.00100  | 0.00500  |                 |
| 4-Methyl-2-pentanone (MIBK)    | U         |              | 0.00188  | 0.0100   | 4               |
| Methyl tert-butyl ether        | U         |              | 0.000212 | 0.00100  | Cr              |
| Naphthalene                    | U         |              | 0.00100  | 0.00500  |                 |
| n-Propylbenzene                | U         |              | 0.000206 | 0.00100  | ⁵Sr             |
| Styrene                        | U         |              | 0.000234 | 0.00100  |                 |
| 1,1,1,2-Tetrachloroethane      | U         |              | 0.000264 | 0.00100  | 6_              |
| 1,1,2,2-Tetrachloroethane      | U         |              | 0.000365 | 0.00100  | ଁ Q             |
| Tetrachloroethene              | U         |              | 0.000276 | 0.00100  |                 |
| Toluene                        | U         |              | 0.000434 | 0.00500  | <sup>7</sup> Gl |
| 1,1,2-Trichlorotrifluoroethane | U         |              | 0.000365 | 0.00100  |                 |
| 1,2,3-Trichlorobenzene         | U         |              | 0.000306 | 0.00100  | 8               |
| 1,2,4-Trichlorobenzene         | U         |              | 0.000388 | 0.00100  | A               |
| 1,1,1-Trichloroethane          | U         |              | 0.000286 | 0.00100  |                 |
| 1,1,2-Trichloroethane          | U         |              | 0.000277 | 0.00100  | Sc              |
| Trichloroethene                | U         |              | 0.000279 | 0.00100  |                 |
| Trichlorofluoromethane         | U         |              | 0.000382 | 0.00500  |                 |
| 1,2,3-Trichloropropane         | U         |              | 0.000741 | 0.00250  |                 |
| 1,2,3-Trimethylbenzene         | U         |              | 0.000287 | 0.00100  |                 |
| 1,2,4-Trimethylbenzene         | U         |              | 0.000211 | 0.00100  |                 |
| 1,3,5-Trimethylbenzene         | U         |              | 0.000266 | 0.00100  |                 |
| Vinyl chloride                 | U         |              | 0.000291 | 0.00100  |                 |
| Xylenes, Total                 | U         |              | 0.000698 | 0.00300  |                 |
| (S) Toluene-d8                 | 102       |              |          | 80.0-120 |                 |
| (S) Dibromofluoromethane       | 108       |              |          | 74.0-131 |                 |
| (S) 4-Bromofluorobenzene       | 102       |              |          | 64.0-132 |                 |

| (LCS) R3284295-1 02/0 | 03/18 12:04 • (LCS | D) R3284295  | -2 02/03/18 12: | 25       |           |             |               |                |       |                |                  |
|-----------------------|--------------------|--------------|-----------------|----------|-----------|-------------|---------------|----------------|-------|----------------|------------------|
|                       | Spike Amount       | LCS Result   | LCSD Result     | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits     |                  |
| Analyte               | mg/kg              | mg/kg        | mg/kg           | %        | %         | %           |               |                | %     | %              |                  |
| Acetone               | 0.125              | 0.166        | 0.167           | 133      | 134       | 11.0-160    |               |                | 0.657 | 23             |                  |
| Acrylonitrile         | 0.125              | 0.131        | 0.129           | 105      | 104       | 61.0-143    |               |                | 1.14  | 20             |                  |
| Benzene               | 0.0250             | 0.0268       | 0.0265          | 107      | 106       | 71.0-124    |               |                | 0.993 | 20             |                  |
| Bromobenzene          | 0.0250             | 0.0284       | 0.0281          | 114      | 112       | 78.0-120    |               |                | 1.09  | 20             |                  |
| Bromodichloromethane  | 0.0250             | 0.0279       | 0.0269          | 112      | 107       | 75.0-120    |               |                | 3.77  | 20             |                  |
| Docume                | ent No: J1-680-R0  | GL-GRI-00001 | -00             |          |           | Revision:   | 1             |                |       |                | Reissued for Use |
|                       | ACCOUNT:           |              |                 | PRO      | JECT:     |             | SDG:          |                |       | DATE/TIME:     | PAGE:            |
| GRI                   | l - Beaverton, OR  |              |                 | 576      | 4-1195    |             | L96760        | )3             |       | 02/07/18 17:58 | 32 of 52         |

## QUALITY CONTROL SUMMARY L967603-06

Τс

Ss

Cn

Sr

Qc

GI

A

Sc

| (LCS) R3284295-1 02/03 | 3/18 12:04 • (LCSI | D) R3284295 | -2 02/03/18 12: | 25       |           |             |
|------------------------|--------------------|-------------|-----------------|----------|-----------|-------------|
|                        | Spike Amount       | LCS Result  | LCSD Result     | LCS Rec. | LCSD Rec. | Rec. Limits |
| Analyte                | mg/kg              | mg/kg       | mg/kg           | %        | %         | %           |
| Bromoform              | 0.0250             | 0.0264      | 0.0260          | 106      | 104       | 65.0-133    |
| Bromomethane           | 0.0250             | 0.0287      | 0.0285          | 115      | 114       | 26.0-160    |

| (200) 10204200 1 02/00/     | Spike Amount  | -            | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD    | RPD Limits     |                  |
|-----------------------------|---------------|--------------|-------------|----------|-----------|-------------|---------------|----------------|--------|----------------|------------------|
| Analyte                     | mg/kg         | mg/kg        | mg/kg       | %        | %         | %           |               |                | %      | %              |                  |
| Bromoform                   | 0.0250        | 0.0264       | 0.0260      | 106      | 104       | 65.0-133    |               |                | 1.62   | 20             |                  |
| Bromomethane                | 0.0250        | 0.0287       | 0.0285      | 115      | 114       | 26.0-160    |               |                | 0.678  | 20             |                  |
| n-Butylbenzene              | 0.0250        | 0.0288       | 0.0282      | 115      | 113       | 73.0-126    |               |                | 2.00   | 20             |                  |
| sec-Butylbenzene            | 0.0250        | 0.0288       | 0.0288      | 115      | 115       | 75.0-121    |               |                | 0.257  | 20             |                  |
| tert-Butylbenzene           | 0.0250        | 0.0280       | 0.0280      | 112      | 112       | 74.0-122    |               |                | 0.131  | 20             |                  |
| Carbon tetrachloride        | 0.0250        | 0.0248       | 0.0243      | 99.2     | 97.1      | 66.0-123    |               |                | 2.21   | 20             |                  |
| Chlorobenzene               | 0.0250        | 0.0275       | 0.0262      | 110      | 105       | 79.0-121    |               |                | 4.80   | 20             |                  |
| Chlorodibromomethane        | 0.0250        | 0.0269       | 0.0262      | 108      | 105       | 74.0-128    |               |                | 2.79   | 20             |                  |
| Chloroethane                | 0.0250        | 0.0290       | 0.0278      | 116      | 111       | 51.0-147    |               |                | 4.38   | 20             |                  |
| Chloroform                  | 0.0250        | 0.0281       | 0.0279      | 112      | 112       | 73.0-123    |               |                | 0.545  | 20             |                  |
| Chloromethane               | 0.0250        | 0.0228       | 0.0217      | 91.4     | 86.6      | 51.0-138    |               |                | 5.37   | 20             |                  |
| 2-Chlorotoluene             | 0.0250        | 0.0278       | 0.0277      | 111      | 111       | 72.0-124    |               |                | 0.259  | 20             |                  |
| 4-Chlorotoluene             | 0.0250        | 0.0284       | 0.0279      | 114      | 112       | 78.0-120    |               |                | 1.66   | 20             |                  |
| 1,2-Dibromo-3-Chloropropane | 0.0250        | 0.0229       | 0.0226      | 91.8     | 90.3      | 65.0-126    |               |                | 1.66   | 20             |                  |
| 1,2-Dibromoethane           | 0.0250        | 0.0282       | 0.0271      | 113      | 108       | 78.0-122    |               |                | 4.18   | 20             |                  |
| Dibromomethane              | 0.0250        | 0.0261       | 0.0252      | 104      | 101       | 79.0-120    |               |                | 3.53   | 20             |                  |
| 1,2-Dichlorobenzene         | 0.0250        | 0.0263       | 0.0257      | 105      | 103       | 80.0-120    |               |                | 2.20   | 20             |                  |
| 1,3-Dichlorobenzene         | 0.0250        | 0.0273       | 0.0267      | 109      | 107       | 72.0-123    |               |                | 2.16   | 20             |                  |
| 1,4-Dichlorobenzene         | 0.0250        | 0.0266       | 0.0260      | 107      | 104       | 77.0-120    |               |                | 2.28   | 20             |                  |
| Dichlorodifluoromethane     | 0.0250        | 0.0259       | 0.0257      | 104      | 103       | 49.0-155    |               |                | 0.884  | 20             |                  |
| 1,1-Dichloroethane          | 0.0250        | 0.0265       | 0.0262      | 106      | 105       | 70.0-128    |               |                | 1.22   | 20             |                  |
| 1,2-Dichloroethane          | 0.0250        | 0.0311       | 0.0312      | 124      | 125       | 69.0-128    |               |                | 0.432  | 20             |                  |
| 1,1-Dichloroethene          | 0.0250        | 0.0288       | 0.0288      | 115      | 115       | 63.0-131    |               |                | 0.0206 | 20             |                  |
| cis-1,2-Dichloroethene      | 0.0250        | 0.0263       | 0.0260      | 105      | 104       | 74.0-123    |               |                | 1.14   | 20             |                  |
| trans-1,2-Dichloroethene    | 0.0250        | 0.0253       | 0.0253      | 101      | 101       | 72.0-122    |               |                | 0.0700 | 20             |                  |
| 1,2-Dichloropropane         | 0.0250        | 0.0270       | 0.0264      | 108      | 106       | 75.0-126    |               |                | 1.98   | 20             |                  |
| 1,1-Dichloropropene         | 0.0250        | 0.0267       | 0.0270      | 107      | 108       | 72.0-130    |               |                | 1.06   | 20             |                  |
| 1,3-Dichloropropane         | 0.0250        | 0.0304       | 0.0288      | 121      | 115       | 80.0-121    |               |                | 5.41   | 20             |                  |
| cis-1,3-Dichloropropene     | 0.0250        | 0.0304       | 0.0291      | 122      | 116       | 80.0-125    |               |                | 4.45   | 20             |                  |
| trans-1,3-Dichloropropene   | 0.0250        | 0.0327       | 0.0313      | 131      | 125       | 75.0-129    | <u>J4</u>     |                | 4.64   | 20             |                  |
| 2,2-Dichloropropane         | 0.0250        | 0.0249       | 0.0240      | 99.6     | 96.0      | 60.0-129    |               |                | 3.74   | 20             |                  |
| Di-isopropyl ether          | 0.0250        | 0.0251       | 0.0249      | 100      | 99.7      | 62.0-133    |               |                | 0.688  | 20             |                  |
| Ethylbenzene                | 0.0250        | 0.0260       | 0.0251      | 104      | 100       | 77.0-120    |               |                | 3.44   | 20             |                  |
| Hexachloro-1,3-butadiene    | 0.0250        | 0.0240       | 0.0236      | 96.1     | 94.4      | 68.0-128    |               |                | 1.75   | 20             |                  |
| Isopropylbenzene            | 0.0250        | 0.0275       | 0.0278      | 110      | 111       | 75.0-120    |               |                | 0.743  | 20             |                  |
| p-Isopropyltoluene          | 0.0250        | 0.0280       | 0.0276      | 112      | 110       | 74.0-125    |               |                | 1.55   | 20             |                  |
| 2-Butanone (MEK)            | 0.125         | 0.161        | 0.160       | 129      | 128       | 37.0-159    |               |                | 0.472  | 20             |                  |
| Methylene Chloride          | 0.0250        | 0.0243       | 0.0243      | 97.3     | 97.3      | 67.0-123    |               |                | 0.0756 | 20             |                  |
| 4-Methyl-2-pentanone (MIBK) | 0.125         | 0.127        | 0.123       | 102      | 98.5      | 60.0-144    |               |                | 3.39   | 20             |                  |
| Methyl tert-butyl ether     | 0.0250        | 0.0273       | 0.0269      | 109      | 108       | 66.0-125    |               |                | 1.39   | 20             |                  |
|                             | No: J1-680-R0 | GL-GRI-00001 | -00         |          |           | Revision:   |               |                |        |                | Reissued for Use |
|                             | COUNT:        |              |             |          | JECT:     |             | SDG:          |                |        | DATE/TIME:     | PAGE:            |
| GRI - B                     | leaverton, OR |              |             | 576      | 4-1195    |             | L96760        | 3              |        | 02/07/18 17:58 | 33 of 52         |

## QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

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

| (LCS) R3284295-1 02/03/        | 18 12:04 • (LCSI | D) R3284295 | -2 02/03/18 12:: | 25       |           |             |               |                |        |            |  |
|--------------------------------|------------------|-------------|------------------|----------|-----------|-------------|---------------|----------------|--------|------------|--|
|                                | Spike Amount     | LCS Result  | LCSD Result      | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD    | RPD Limits |  |
| Analyte                        | mg/kg            | mg/kg       | mg/kg            | %        | %         | %           |               |                | %      | %          |  |
| Naphthalene                    | 0.0250           | 0.0243      | 0.0239           | 97.2     | 95.8      | 64.0-125    |               |                | 1.49   | 20         |  |
| n-Propylbenzene                | 0.0250           | 0.0284      | 0.0275           | 113      | 110       | 78.0-120    |               |                | 3.15   | 20         |  |
| Styrene                        | 0.0250           | 0.0285      | 0.0282           | 114      | 113       | 78.0-124    |               |                | 1.11   | 20         |  |
| 1,1,1,2-Tetrachloroethane      | 0.0250           | 0.0233      | 0.0223           | 93.1     | 89.3      | 74.0-124    |               |                | 4.16   | 20         |  |
| 1,1,2,2-Tetrachloroethane      | 0.0250           | 0.0281      | 0.0281           | 112      | 112       | 73.0-120    |               |                | 0.103  | 20         |  |
| Tetrachloroethene              | 0.0250           | 0.0256      | 0.0244           | 102      | 97.7      | 70.0-127    |               |                | 4.58   | 20         |  |
| Toluene                        | 0.0250           | 0.0258      | 0.0247           | 103      | 99.0      | 77.0-120    |               |                | 4.19   | 20         |  |
| 1,1,2-Trichlorotrifluoroethane | 0.0250           | 0.0263      | 0.0257           | 105      | 103       | 64.0-135    |               |                | 2.48   | 20         |  |
| 1,2,3-Trichlorobenzene         | 0.0250           | 0.0238      | 0.0231           | 95.0     | 92.3      | 68.0-126    |               |                | 2.92   | 20         |  |
| 1,2,4-Trichlorobenzene         | 0.0250           | 0.0242      | 0.0235           | 96.8     | 94.0      | 70.0-127    |               |                | 2.97   | 20         |  |
| 1,1,1-Trichloroethane          | 0.0250           | 0.0273      | 0.0271           | 109      | 108       | 69.0-125    |               |                | 0.754  | 20         |  |
| 1,1,2-Trichloroethane          | 0.0250           | 0.0276      | 0.0268           | 111      | 107       | 78.0-120    |               |                | 3.09   | 20         |  |
| Trichloroethene                | 0.0250           | 0.0253      | 0.0247           | 101      | 98.6      | 79.0-120    |               |                | 2.46   | 20         |  |
| Trichlorofluoromethane         | 0.0250           | 0.0272      | 0.0270           | 109      | 108       | 59.0-136    |               |                | 0.791  | 20         |  |
| 1,2,3-Trichloropropane         | 0.0250           | 0.0264      | 0.0265           | 106      | 106       | 73.0-124    |               |                | 0.497  | 20         |  |
| 1,2,3-Trimethylbenzene         | 0.0250           | 0.0277      | 0.0268           | 111      | 107       | 76.0-120    |               |                | 3.35   | 20         |  |
| 1,2,4-Trimethylbenzene         | 0.0250           | 0.0272      | 0.0273           | 109      | 109       | 75.0-120    |               |                | 0.253  | 20         |  |
| 1,3,5-Trimethylbenzene         | 0.0250           | 0.0277      | 0.0277           | 111      | 111       | 75.0-120    |               |                | 0.0525 | 20         |  |
| Vinyl chloride                 | 0.0250           | 0.0270      | 0.0264           | 108      | 106       | 63.0-134    |               |                | 2.29   | 20         |  |
| Xylenes, Total                 | 0.0750           | 0.0769      | 0.0736           | 103      | 98.1      | 77.0-120    |               |                | 4.39   | 20         |  |
| (S) Toluene-d8                 |                  |             |                  | 101      | 98.4      | 80.0-120    |               |                |        |            |  |
| (S) Dibromofluoromethane       |                  |             |                  | 98.8     | 101       | 74.0-131    |               |                |        |            |  |
| (S) 4-Bromofluorobenzene       |                  |             |                  | 103      | 105       | 64.0-132    |               |                |        |            |  |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L967603    | 02/07/18 17:58 | 34 of 52        |

E. 🧸

## WG1070279

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

## QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

Τс

Ss

Cn

Sr

Qc

GI

Â

°Sc

## Method Blank (MB)

| (MB) R3284470-3 02/06/      | 18 11:51      |               |          |           |             |         |    |              |                  | -   |
|-----------------------------|---------------|---------------|----------|-----------|-------------|---------|----|--------------|------------------|-----|
|                             | MB Result     | MB Qualifier  | MB MDL   | MB RDL    |             |         |    |              |                  | 2   |
| Analyte                     | mg/kg         |               | mg/kg    | mg/kg     |             |         |    |              |                  |     |
| Acetone                     | U             |               | 0.0100   | 0.0500    |             |         |    |              |                  |     |
| Acrylonitrile               | U             |               | 0.00179  | 0.0100    |             |         |    |              |                  | 3   |
| Benzene                     | U             |               | 0.000270 | 0.00100   |             |         |    |              |                  |     |
| Bromobenzene                | U             |               | 0.000284 | 0.00100   |             |         |    |              |                  | 4   |
| Bromodichloromethane        | U             |               | 0.000254 | 0.00100   |             |         |    |              |                  |     |
| Bromoform                   | U             |               | 0.000424 | 0.00100   |             |         |    |              |                  |     |
| Bromomethane                | U             |               | 0.00134  | 0.00500   |             |         |    |              |                  | 5   |
| n-Butylbenzene              | U             |               | 0.000258 | 0.00100   |             |         |    |              |                  |     |
| sec-Butylbenzene            | U             |               | 0.000201 | 0.00100   |             |         |    |              |                  | 6   |
| tert-Butylbenzene           | U             |               | 0.000206 | 0.00100   |             |         |    |              |                  |     |
| Carbon tetrachloride        | U             |               | 0.000328 | 0.00100   |             |         |    |              |                  |     |
| Chlorobenzene               | U             |               | 0.000212 | 0.00100   |             |         |    |              |                  | 7   |
| Chlorodibromomethane        | U             |               | 0.000373 | 0.00100   |             |         |    |              |                  |     |
| Chloroethane                | U             |               | 0.000946 | 0.00500   |             |         |    |              |                  | 8   |
| Chloroform                  | U             |               | 0.000229 | 0.00500   |             |         |    |              |                  | - 1 |
| Chloromethane               | U             |               | 0.000375 | 0.00250   |             |         |    |              |                  |     |
| 2-Chlorotoluene             | U             |               | 0.000301 | 0.00100   |             |         |    |              |                  | 9   |
| 4-Chlorotoluene             | U             |               | 0.000240 | 0.00100   |             |         |    |              |                  |     |
| 1,2-Dibromo-3-Chloropropane | U             |               | 0.00105  | 0.00500   |             |         |    |              |                  |     |
| 1,2-Dibromoethane           | U             |               | 0.000343 | 0.00100   |             |         |    |              |                  |     |
| Dibromomethane              | U             |               | 0.000382 | 0.00100   |             |         |    |              |                  |     |
| 1,2-Dichlorobenzene         | U             |               | 0.000305 | 0.00100   |             |         |    |              |                  |     |
| 1,3-Dichlorobenzene         | U             |               | 0.000239 | 0.00100   |             |         |    |              |                  |     |
| 1,4-Dichlorobenzene         | U             |               | 0.000226 | 0.00100   |             |         |    |              |                  |     |
| Dichlorodifluoromethane     | U             |               | 0.000713 | 0.00500   |             |         |    |              |                  |     |
| 1,1-Dichloroethane          | U             |               | 0.000199 | 0.00100   |             |         |    |              |                  |     |
| 1,2-Dichloroethane          | U             |               | 0.000265 | 0.00100   |             |         |    |              |                  |     |
| 1,1-Dichloroethene          | U             |               | 0.000303 | 0.00100   |             |         |    |              |                  |     |
| cis-1,2-Dichloroethene      | U             |               | 0.000235 | 0.00100   |             |         |    |              |                  |     |
| trans-1,2-Dichloroethene    | U             |               | 0.000264 | 0.00100   |             |         |    |              |                  |     |
| 1,2-Dichloropropane         | U             |               | 0.000358 | 0.00100   |             |         |    |              |                  |     |
| 1,1-Dichloropropene         | U             |               | 0.000317 | 0.00100   |             |         |    |              |                  |     |
| 1,3-Dichloropropane         | U             |               | 0.000207 | 0.00100   |             |         |    |              |                  |     |
| cis-1,3-Dichloropropene     | U             |               | 0.000262 | 0.00100   |             |         |    |              |                  |     |
| trans-1,3-Dichloropropene   | U             |               | 0.000267 | 0.00100   |             |         |    |              |                  |     |
| 2,2-Dichloropropane         | U             |               | 0.000279 | 0.00100   |             |         |    |              |                  |     |
| Di-isopropyl ether          | U             |               | 0.000248 | 0.00100   |             |         |    |              |                  |     |
| Ethylbenzene                | U             |               | 0.000297 | 0.00100   |             |         |    |              |                  |     |
| Hexachloro-1,3-butadiene    | U             |               | 0.000342 | 0.00100   |             |         |    |              |                  |     |
| Isopropylbenzene            | U             |               | 0.000243 | 0.00100   |             |         |    |              |                  |     |
| Document                    | No: J1-680-I  | RGL-GRI-00001 | -00      |           | Revision: 1 |         |    |              | Reissued for Use |     |
| A                           | CCOUNT:       |               |          | PROJECT:  |             | SDG:    | D  | ATE/TIME:    | PAGE:            |     |
| GRI - E                     | Beaverton, OR |               |          | 5764-1195 |             | L967603 | 02 | /07/18 17:58 | 35 of 52         |     |

## WG1070279

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

## QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

## Method Blank (MB)

| (MB) R3284470-3 02/06/1        | 18 11:51  |              |          |          |   |
|--------------------------------|-----------|--------------|----------|----------|---|
|                                | MB Result | MB Qualifier | MB MDL   | MB RDL   | 2 |
| Analyte                        | mg/kg     |              | mg/kg    | mg/kg    |   |
| p-lsopropyltoluene             | U         |              | 0.000204 | 0.00100  |   |
| 2-Butanone (MEK)               | U         |              | 0.00468  | 0.0100   | 3 |
| Methylene Chloride             | U         |              | 0.00100  | 0.00500  |   |
| 4-Methyl-2-pentanone (MIBK)    | U         |              | 0.00188  | 0.0100   | 4 |
| Methyl tert-butyl ether        | U         |              | 0.000212 | 0.00100  |   |
| Naphthalene                    | U         |              | 0.00100  | 0.00500  |   |
| n-Propylbenzene                | U         |              | 0.000206 | 0.00100  | 5 |
| Styrene                        | U         |              | 0.000234 | 0.00100  |   |
| 1,1,1,2-Tetrachloroethane      | U         |              | 0.000264 | 0.00100  | 6 |
| 1,1,2,2-Tetrachloroethane      | U         |              | 0.000365 | 0.00100  | 0 |
| Tetrachloroethene              | U         |              | 0.000276 | 0.00100  |   |
| Toluene                        | U         |              | 0.000434 | 0.00500  | 7 |
| 1,1,2-Trichlorotrifluoroethane | U         |              | 0.000365 | 0.00100  |   |
| 1,2,3-Trichlorobenzene         | U         |              | 0.000306 | 0.00100  | 8 |
| 1,2,4-Trichlorobenzene         | U         |              | 0.000388 | 0.00100  |   |
| 1,1,1-Trichloroethane          | U         |              | 0.000286 | 0.00100  |   |
| 1,1,2-Trichloroethane          | U         |              | 0.000277 | 0.00100  | 9 |
| Trichloroethene                | U         |              | 0.000279 | 0.00100  |   |
| Trichlorofluoromethane         | U         |              | 0.000382 | 0.00500  |   |
| 1,2,3-Trichloropropane         | U         |              | 0.000741 | 0.00250  |   |
| 1,2,3-Trimethylbenzene         | U         |              | 0.000287 | 0.00100  |   |
| 1,2,4-Trimethylbenzene         | U         |              | 0.000211 | 0.00100  |   |
| 1,3,5-Trimethylbenzene         | U         |              | 0.000266 | 0.00100  |   |
| Vinyl chloride                 | U         |              | 0.000291 | 0.00100  |   |
| Xylenes, Total                 | U         |              | 0.000698 | 0.00300  |   |
| (S) Toluene-d8                 | 103       |              |          | 80.0-120 |   |
| (S) Dibromofluoromethane       | 104       |              |          | 74.0-131 |   |
| (S) 4-Bromofluorobenzene       | 103       |              |          | 64.0-132 |   |
|                                |           |              |          |          |   |

| (LCS) R3284470-1 02/0 | 6/18 10:06 • (LCS | D) R3284470              | -2 02/06/18 10: | 27       |           |                        |                   |       |                |                  |
|-----------------------|-------------------|--------------------------|-----------------|----------|-----------|------------------------|-------------------|-------|----------------|------------------|
|                       | Spike Amount      | LCS Result               | LCSD Result     | LCS Rec. | LCSD Rec. | Rec. Limits LCS Qualif | er LCSD Qualifier | RPD   | RPD Limits     |                  |
| Analyte               | mg/kg             | mg/kg                    | mg/kg           | %        | %         | %                      |                   | %     | %              |                  |
| Acetone               | 0.125             | 0.157                    | 0.134           | 126      | 107       | 11.0-160               |                   | 15.9  | 23             |                  |
| Acrylonitrile         | 0.125             | 0.125                    | 0.115           | 99.9     | 92.0      | 61.0-143               |                   | 8.23  | 20             |                  |
| Benzene               | 0.0250            | 0.0257                   | 0.0249          | 103      | 99.7      | 71.0-124               |                   | 2.85  | 20             |                  |
| Bromobenzene          | 0.0250            | 0.0253                   | 0.0257          | 101      | 103       | 78.0-120               |                   | 1.38  | 20             |                  |
| Bromodichloromethane  | 0.0250            | 0.0253                   | 0.0252          | 101      | 101       | 75.0-120               |                   | 0.367 | 20             |                  |
| Docume                | ent No: J1-680-R  | GL-GRI-0000 <sup>°</sup> | 1-00            |          |           | Revision: 1            |                   |       |                | Reissued for Use |
|                       | ACCOUNT:          |                          |                 | PRO      | OJECT:    | S                      | DG:               |       | DATE/TIME:     | PAGE:            |
| GRI                   | - Beaverton, OR   |                          |                 | 576      | 64-1195   | L9                     | 7603              |       | 02/07/18 17:58 | 36 of 52         |

## QUALITY CONTROL SUMMARY

Тс

Ss

Cn

Sr

Qc

GI

Â

Sc

| -                |                  | 1.1    | 1          | -              |  |
|------------------|------------------|--------|------------|----------------|--|
| (LCS) R3284470-1 | 02/06/18 10:06 • | (ICSD) | R3284470-2 | 02/06/18 10.27 |  |

|                             | Spike Amount  | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD    | RPD Limits     |                  |
|-----------------------------|---------------|------------|-------------|----------|-----------|-------------|---------------|----------------|--------|----------------|------------------|
| Analyte                     | mg/kg         | mg/kg      | mg/kg       | %        | %         | %           |               |                | %      | %              |                  |
| Bromoform                   | 0.0250        | 0.0236     | 0.0229      | 94.6     | 91.7      | 65.0-133    |               |                | 3.09   | 20             |                  |
| Bromomethane                | 0.0250        | 0.0284     | 0.0275      | 114      | 110       | 26.0-160    |               |                | 3.17   | 20             |                  |
| n-Butylbenzene              | 0.0250        | 0.0272     | 0.0271      | 109      | 109       | 73.0-126    |               |                | 0.261  | 20             |                  |
| sec-Butylbenzene            | 0.0250        | 0.0275     | 0.0279      | 110      | 111       | 75.0-121    |               |                | 1.45   | 20             |                  |
| tert-Butylbenzene           | 0.0250        | 0.0267     | 0.0272      | 107      | 109       | 74.0-122    |               |                | 1.61   | 20             |                  |
| Carbon tetrachloride        | 0.0250        | 0.0248     | 0.0239      | 99.4     | 95.4      | 66.0-123    |               |                | 4.06   | 20             |                  |
| Chlorobenzene               | 0.0250        | 0.0240     | 0.0245      | 95.9     | 98.0      | 79.0-121    |               |                | 2.18   | 20             |                  |
| Chlorodibromomethane        | 0.0250        | 0.0241     | 0.0233      | 96.3     | 93.4      | 74.0-128    |               |                | 3.07   | 20             |                  |
| Chloroethane                | 0.0250        | 0.0287     | 0.0277      | 115      | 111       | 51.0-147    |               |                | 3.41   | 20             |                  |
| Chloroform                  | 0.0250        | 0.0276     | 0.0265      | 111      | 106       | 73.0-123    |               |                | 4.28   | 20             |                  |
| Chloromethane               | 0.0250        | 0.0227     | 0.0219      | 90.8     | 87.8      | 51.0-138    |               |                | 3.36   | 20             |                  |
| 2-Chlorotoluene             | 0.0250        | 0.0263     | 0.0268      | 105      | 107       | 72.0-124    |               |                | 1.81   | 20             |                  |
| 4-Chlorotoluene             | 0.0250        | 0.0256     | 0.0260      | 102      | 104       | 78.0-120    |               |                | 1.79   | 20             |                  |
| 1,2-Dibromo-3-Chloropropane | 0.0250        | 0.0219     | 0.0219      | 87.7     | 87.4      | 65.0-126    |               |                | 0.238  | 20             |                  |
| l,2-Dibromoethane           | 0.0250        | 0.0232     | 0.0233      | 92.8     | 93.2      | 78.0-122    |               |                | 0.379  | 20             |                  |
| Dibromomethane              | 0.0250        | 0.0236     | 0.0233      | 94.5     | 93.2      | 79.0-120    |               |                | 1.35   | 20             |                  |
| ,2-Dichlorobenzene          | 0.0250        | 0.0250     | 0.0251      | 100      | 101       | 80.0-120    |               |                | 0.423  | 20             |                  |
| 3-Dichlorobenzene           | 0.0250        | 0.0258     | 0.0258      | 103      | 103       | 72.0-123    |               |                | 0.134  | 20             |                  |
| 4-Dichlorobenzene           | 0.0250        | 0.0247     | 0.0246      | 98.8     | 98.2      | 77.0-120    |               |                | 0.603  | 20             |                  |
| Dichlorodifluoromethane     | 0.0250        | 0.0259     | 0.0253      | 104      | 101       | 49.0-155    |               |                | 2.57   | 20             |                  |
| ,1-Dichloroethane           | 0.0250        | 0.0260     | 0.0254      | 104      | 101       | 70.0-128    |               |                | 2.39   | 20             |                  |
| ,2-Dichloroethane           | 0.0250        | 0.0282     | 0.0272      | 113      | 109       | 69.0-128    |               |                | 3.83   | 20             |                  |
| ,1-Dichloroethene           | 0.0250        | 0.0289     | 0.0279      | 116      | 112       | 63.0-131    |               |                | 3.35   | 20             |                  |
| is-1,2-Dichloroethene       | 0.0250        | 0.0262     | 0.0256      | 105      | 102       | 74.0-123    |               |                | 2.57   | 20             |                  |
| rans-1,2-Dichloroethene     | 0.0250        | 0.0256     | 0.0252      | 102      | 101       | 72.0-122    |               |                | 1.60   | 20             |                  |
| ,2-Dichloropropane          | 0.0250        | 0.0251     | 0.0247      | 100      | 98.7      | 75.0-126    |               |                | 1.62   | 20             |                  |
| ,1-Dichloropropene          | 0.0250        | 0.0261     | 0.0252      | 104      | 101       | 72.0-130    |               |                | 3.38   | 20             |                  |
| ,3-Dichloropropane          | 0.0250        | 0.0251     | 0.0249      | 101      | 99.6      | 80.0-121    |               |                | 1.02   | 20             |                  |
| sis-1,3-Dichloropropene     | 0.0250        | 0.0255     | 0.0259      | 102      | 104       | 80.0-125    |               |                | 1.56   | 20             |                  |
| rans-1,3-Dichloropropene    | 0.0250        | 0.0265     | 0.0260      | 106      | 104       | 75.0-129    |               |                | 1.82   | 20             |                  |
| 2,2-Dichloropropane         | 0.0250        | 0.0254     | 0.0242      | 102      | 96.7      | 60.0-129    |               |                | 4.92   | 20             |                  |
| )i-isopropyl ether          | 0.0250        | 0.0246     | 0.0236      | 98.5     | 94.2      | 62.0-133    |               |                | 4.41   | 20             |                  |
| thylbenzene                 | 0.0250        | 0.0234     | 0.0241      | 93.4     | 96.3      | 77.0-120    |               |                | 3.05   | 20             |                  |
| lexachloro-1,3-butadiene    | 0.0250        | 0.0242     | 0.0236      | 96.9     | 94.6      | 68.0-128    |               |                | 2.37   | 20             |                  |
| sopropylbenzene             | 0.0250        | 0.0267     | 0.0267      | 107      | 107       | 75.0-120    |               |                | 0.0243 | 20             |                  |
| -Isopropyltoluene           | 0.0250        | 0.0270     | 0.0268      | 108      | 107       | 74.0-125    |               |                | 0.431  | 20             |                  |
| P-Butanone (MEK)            | 0.125         | 0.140      | 0.126       | 112      | 101       | 37.0-159    |               |                | 10.4   | 20             |                  |
| Nethylene Chloride          | 0.0250        | 0.0241     | 0.0236      | 96.4     | 94.3      | 67.0-123    |               |                | 2.13   | 20             |                  |
| 1-Methyl-2-pentanone (MIBK) | 0.125         | 0.114      | 0.109       | 91.4     | 86.9      | 60.0-144    |               |                | 5.04   | 20             |                  |
| Methyl tert-butyl ether     | 0.0250        | 0.0266     | 0.0254      | 106      | 101       | 66.0-125    |               |                | 4.80   | 20             |                  |
|                             | No: J1-680-R0 |            |             |          |           | Revision    | : 1           |                |        |                | Reissued for Use |
| AC                          | CCOUNT:       |            |             | PR       | OJECT:    |             | SDG:          | :              |        | DATE/TIME:     | PAGE:            |
| GRI - B                     | Beaverton, OR |            |             | 57       | 64-1195   |             | L96760        | 03             |        | 02/07/18 17:58 | 37 of 52         |

## QUALITY CONTROL SUMMARY

| (LCS) R3284470-1 02/06/        | ·            | '          |             |          |           |             |               |                |        |            |  |
|--------------------------------|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|--------|------------|--|
|                                | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD    | RPD Limits |  |
| Analyte                        | mg/kg        | mg/kg      | mg/kg       | %        | %         | %           |               |                | %      | %          |  |
| Naphthalene                    | 0.0250       | 0.0245     | 0.0238      | 98.0     | 95.2      | 64.0-125    |               |                | 2.87   | 20         |  |
| n-Propylbenzene                | 0.0250       | 0.0264     | 0.0264      | 106      | 106       | 78.0-120    |               |                | 0.0904 | 20         |  |
| Styrene                        | 0.0250       | 0.0256     | 0.0253      | 103      | 101       | 78.0-124    |               |                | 1.45   | 20         |  |
| 1,1,1,2-Tetrachloroethane      | 0.0250       | 0.0223     | 0.0228      | 89.4     | 91.1      | 74.0-124    |               |                | 1.92   | 20         |  |
| 1,1,2,2-Tetrachloroethane      | 0.0250       | 0.0256     | 0.0252      | 103      | 101       | 73.0-120    |               |                | 1.64   | 20         |  |
| Tetrachloroethene              | 0.0250       | 0.0229     | 0.0235      | 91.4     | 94.0      | 70.0-127    |               |                | 2.82   | 20         |  |
| Toluene                        | 0.0250       | 0.0227     | 0.0232      | 90.9     | 92.8      | 77.0-120    |               |                | 2.04   | 20         |  |
| 1,1,2-Trichlorotrifluoroethane | 0.0250       | 0.0284     | 0.0265      | 113      | 106       | 64.0-135    |               |                | 6.74   | 20         |  |
| 1,2,3-Trichlorobenzene         | 0.0250       | 0.0242     | 0.0236      | 96.8     | 94.5      | 68.0-126    |               |                | 2.40   | 20         |  |
| 1,2,4-Trichlorobenzene         | 0.0250       | 0.0245     | 0.0243      | 97.9     | 97.3      | 70.0-127    |               |                | 0.529  | 20         |  |
| 1,1,1-Trichloroethane          | 0.0250       | 0.0271     | 0.0266      | 109      | 106       | 69.0-125    |               |                | 2.09   | 20         |  |
| 1,1,2-Trichloroethane          | 0.0250       | 0.0239     | 0.0235      | 95.5     | 94.0      | 78.0-120    |               |                | 1.52   | 20         |  |
| Trichloroethene                | 0.0250       | 0.0244     | 0.0243      | 97.4     | 97.3      | 79.0-120    |               |                | 0.133  | 20         |  |
| Trichlorofluoromethane         | 0.0250       | 0.0283     | 0.0272      | 113      | 109       | 59.0-136    |               |                | 3.75   | 20         |  |
| 1,2,3-Trichloropropane         | 0.0250       | 0.0238     | 0.0233      | 95.2     | 93.4      | 73.0-124    |               |                | 1.88   | 20         |  |
| 1,2,3-Trimethylbenzene         | 0.0250       | 0.0260     | 0.0261      | 104      | 105       | 76.0-120    |               |                | 0.687  | 20         |  |
| 1,2,4-Trimethylbenzene         | 0.0250       | 0.0259     | 0.0259      | 104      | 104       | 75.0-120    |               |                | 0.211  | 20         |  |
| 1,3,5-Trimethylbenzene         | 0.0250       | 0.0268     | 0.0271      | 107      | 108       | 75.0-120    |               |                | 0.977  | 20         |  |
| Vinyl chloride                 | 0.0250       | 0.0265     | 0.0255      | 106      | 102       | 63.0-134    |               |                | 3.76   | 20         |  |
| Xylenes, Total                 | 0.0750       | 0.0708     | 0.0718      | 94.4     | 95.7      | 77.0-120    |               |                | 1.40   | 20         |  |
| (S) Toluene-d8                 |              |            |             | 98.8     | 101       | 80.0-120    |               |                |        |            |  |
| (S) Dibromofluoromethane       |              |            |             | 107      | 103       | 74.0-131    |               |                |        |            |  |
| (S) 4-Bromofluorobenzene       |              |            |             | 100      | 101       | 64.0-132    |               |                |        |            |  |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | Re             | issued for Use |
|--------------------------------------|-----------|------------|----------------|----------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:          |
| GRI - Beaverton, OR                  | 5764-1195 | L967603    | 02/07/18 17:58 | 38 of 52       |

## QUALITY CONTROL SUMMARY L967603-02,04,05

Тс

Ss

Cn

Sr

Qc

GI

Â

Sc

## Method Blank (MB)

| (MB) R3284340-1 02/05/18      | 3 15:17   |              |        |          |
|-------------------------------|-----------|--------------|--------|----------|
|                               | MB Result | MB Qualifier | MB MDL | MB RDL   |
| Analyte                       | ug/l      |              | ug/l   | ug/l     |
| Diesel Range Organics (DRO)   | U         |              | 33.3   | 100      |
| Residual Range Organics (RRO) | U         |              | 83.3   | 250      |
| (S) o-Terphenyl               | 78.6      |              |        | 31.0-160 |

| (LCS) R3284340-2 02/05/       | 18 15:33 • (LCS | D) R3284340- | 3 02/05/18 15: | 49       |           |             |               |                |      |            |
|-------------------------------|-----------------|--------------|----------------|----------|-----------|-------------|---------------|----------------|------|------------|
|                               | Spike Amount    | LCS Result   | LCSD Result    | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |
| Analyte                       | ug/l            | ug/l         | ug/l           | %        | %         | %           |               |                | %    | %          |
| Diesel Range Organics (DRO)   | 750             | 792          | 778            | 106      | 104       | 50.0-150    |               |                | 1.72 | 20         |
| Residual Range Organics (RRO) | 750             | 642          | 660            | 85.6     | 88.0      | 50.0-150    |               |                | 2.80 | 20         |
| (S) o-Terphenyl               |                 |              |                | 98.8     | 96.4      | 31.0-160    |               |                |      |            |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | Re             | issued for Use |
|--------------------------------------|-----------|------------|----------------|----------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:          |
| GRI - Beaverton, OR                  | 5764-1195 | L967603    | 02/07/18 17:58 | 39 of 52       |

#### QUALITY CONTROL SUMMARY L967603-01,03,06

⁴Cn

Sr

Qc

GI

Â

Sc

Method Blank (MB)

| iviethod Blank (IVIB)         |           |              |        |          |  |
|-------------------------------|-----------|--------------|--------|----------|--|
| (MB) R3284028-1 02/05/1       | 8 11:50   |              |        |          |  |
|                               | MB Result | MB Qualifier | MB MDL | MB RDL   |  |
| Analyte                       | mg/kg     |              | mg/kg  | mg/kg    |  |
| Diesel Range Organics (DRO)   | U         |              | 1.33   | 4.00     |  |
| Residual Range Organics (RRO) | U         |              | 3.33   | 10.0     |  |
| (S) o-Terphenyl               | 85.2      |              |        | 18.0-148 |  |

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

| (LCS) R3284028-2 02/05/       | 18 12:05 • (LCS | D) R3284028 | 3-3 02/05/18 12 | ::19     |           |             |               |                |      |            |
|-------------------------------|-----------------|-------------|-----------------|----------|-----------|-------------|---------------|----------------|------|------------|
|                               | Spike Amount    | LCS Result  | LCSD Result     | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |
| Analyte                       | mg/kg           | mg/kg       | mg/kg           | %        | %         | %           |               |                | %    | %          |
| Diesel Range Organics (DRO)   | 30.0            | 22.0        | 28.4            | 73.4     | 94.7      | 50.0-150    |               | <u>J3</u>      | 25.4 | 20         |
| Residual Range Organics (RRO) | 30.0            | 23.7        | 30.6            | 78.9     | 102       | 50.0-150    |               | <u>J3</u>      | 25.4 | 20         |
| (S) o-Terphenyl               |                 |             |                 | 72.5     | 90.9      | 18.0-148    |               |                |      |            |

## L967646-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L967646-02 02/05/18 14:50 • (MS) R3284028-4 02/05/18 15:04 • (MSD) R3284028-5 02/05/18 15:19 |              |                 |           |            |         |          |          |             |              |               |      | [          |  |
|---|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|------|------------|--|
|   | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD  | RPD Limits |  |
| Analyte   | mg/kg        | mg/kg           | mg/kg     | mg/kg      | %       | %        |          | %           |              |               | %    | %          |  |
| Diesel Range Organics (DRO)   | 30.0         | ND              | 29.3      | 27.2       | 95.4    | 88.5     | 1        | 50.0-150    |              |               | 7.36 | 20         |  |
| Residual Range Organics (RRO)   | 30.0         | ND              | 29.9      | 28.3       | 92.6    | 87.2     | 1        | 50.0-150    |              |               | 5.52 | 20         |  |
| (S) o-Terphenyl   |              |                 |           |            | 85.5    | 73.2     |          | 18.0-148    |              |               |      |            |  |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | R              | eissued for Use |
|--------------------------------------|-----------|------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L967603    | 02/07/18 17:58 | 40 of 52        |

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

## QUALITY CONTROL SUMMARY

L967603-01,03,06

| (MB) R3283931-3 02/04/ | /18 02:41 |              |          |          | - Cp            |
|------------------------|-----------|--------------|----------|----------|-----------------|
|                        | MB Result | MB Qualifier | MB MDL   | MB RDL   | 2               |
| Analyte                | mg/kg     |              | mg/kg    | mg/kg    | Tc              |
| Anthracene             | U         |              | 0.000600 | 0.00600  |                 |
| Acenaphthene           | U         |              | 0.000600 | 0.00600  | <sup>3</sup> Ss |
| Acenaphthylene         | U         |              | 0.000600 | 0.00600  | 00              |
| Benzo(a)anthracene     | U         |              | 0.000600 | 0.00600  | 4               |
| Benzo(a)pyrene         | U         |              | 0.000600 | 0.00600  | <sup>≁</sup> Cn |
| Benzo(b)fluoranthene   | U         |              | 0.000600 | 0.00600  |                 |
| Benzo(g,h,i)perylene   | U         |              | 0.000600 | 0.00600  | ⁵Sr             |
| Benzo(k)fluoranthene   | U         |              | 0.000600 | 0.00600  |                 |
| Chrysene               | U         |              | 0.000600 | 0.00600  | 6 _             |
| Dibenz(a,h)anthracene  | U         |              | 0.000600 | 0.00600  | ိပ္ရင           |
| Fluoranthene           | U         |              | 0.000600 | 0.00600  | -               |
| Fluorene               | U         |              | 0.000600 | 0.00600  | <sup>7</sup> Gl |
| Indeno(1,2,3-cd)pyrene | U         |              | 0.000600 | 0.00600  | 01              |
| Naphthalene            | U         |              | 0.00200  | 0.0200   | 8               |
| Phenanthrene           | U         |              | 0.000600 | 0.00600  | A               |
| Pyrene                 | U         |              | 0.000600 | 0.00600  |                 |
| 1-Methylnaphthalene    | U         |              | 0.00200  | 0.0200   | <sup>9</sup> Sc |
| 2-Methylnaphthalene    | U         |              | 0.00200  | 0.0200   |                 |
| 2-Chloronaphthalene    | U         |              | 0.00200  | 0.0200   |                 |
| (S) Nitrobenzene-d5    | 73.6      |              |          | 14.0-149 |                 |
| (S) 2-Fluorobiphenyl   | 73.0      |              |          | 34.0-125 |                 |
| (S) p-Terphenyl-d14    | 71.1      |              |          | 23.0-120 |                 |

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

ACCOUNT:

GRI - Beaverton, OR

| (LCS) R3283931-1 02/04 | (LCS) R3283931-1 02/04/18 01:57 • (LCSD) R3283931-2 02/04/18 02:19 |            |             |          |           |             |               |                |       |            |                  |
|------------------------|--|------------|-------------|----------|-----------|-------------|---------------|----------------|-------|------------|------------------|
|                        | Spike Amount   | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |                  |
| Analyte                | mg/kg  | mg/kg      | mg/kg       | %        | %         | %           |               |                | %     | %          |                  |
| Anthracene             | 0.0800   | 0.0802     | 0.0812      | 100      | 101       | 50.0-125    |               |                | 1.26  | 20         |                  |
| Acenaphthene           | 0.0800   | 0.0684     | 0.0711      | 85.6     | 88.9      | 52.0-120    |               |                | 3.87  | 20         |                  |
| Acenaphthylene         | 0.0800   | 0.0688     | 0.0719      | 86.0     | 89.9      | 51.0-120    |               |                | 4.47  | 20         |                  |
| Benzo(a)anthracene     | 0.0800   | 0.0669     | 0.0680      | 83.6     | 84.9      | 46.0-121    |               |                | 1.62  | 20         |                  |
| Benzo(a)pyrene         | 0.0800   | 0.0706     | 0.0716      | 88.3     | 89.5      | 42.0-121    |               |                | 1.34  | 20         |                  |
| Benzo(b)fluoranthene   | 0.0800   | 0.0670     | 0.0681      | 83.8     | 85.1      | 42.0-123    |               |                | 1.57  | 20         |                  |
| Benzo(g,h,i)perylene   | 0.0800   | 0.0755     | 0.0743      | 94.4     | 92.9      | 43.0-128    |               |                | 1.58  | 20         |                  |
| Benzo(k)fluoranthene   | 0.0800   | 0.0739     | 0.0732      | 92.3     | 91.5      | 45.0-128    |               |                | 0.938 | 20         |                  |
| Chrysene               | 0.0800   | 0.0724     | 0.0740      | 90.5     | 92.5      | 48.0-127    |               |                | 2.11  | 20         |                  |
| Dibenz(a,h)anthracene  | 0.0800   | 0.0735     | 0.0732      | 91.9     | 91.5      | 43.0-132    |               |                | 0.382 | 20         |                  |
| Fluoranthene           | 0.0800   | 0.0763     | 0.0759      | 95.4     | 94.9      | 49.0-129    |               |                | 0.510 | 20         |                  |
| Docume                 | Document No: J1-680-RGL-GRI-00001-00                               |            |             |          |           |             | 1             |                |       |            | Reissued for Use |

SDG:

L967603

DATE/TIME:

02/07/18 17:58

PROJECT:

5764-1195

PAGE:

41 of 52

## QUALITY CONTROL SUMMARY

L967603-01,03,06

Τс

Ss

Cn

Sr

ິQc

GI

Â

Sc

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

| (LCS) R3283931-1 02/04 | CS) R3283931-1 02/04/18 01:57 • (LCSD) R3283931-2 02/04/18 02:19 |            |             |          |           |             |               |                |       |            |  |  |
|------------------------|--|------------|-------------|----------|-----------|-------------|---------------|----------------|-------|------------|--|--|
|                        | Spike Amount   | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |  |  |
| Analyte                | mg/kg  | mg/kg      | mg/kg       | %        | %         | %           |               |                | %     | %          |  |  |
| Fluorene               | 0.0800   | 0.0658     | 0.0680      | 82.2     | 85.0      | 50.0-120    |               |                | 3.35  | 20         |  |  |
| Indeno(1,2,3-cd)pyrene | 0.0800   | 0.0743     | 0.0739      | 92.8     | 92.4      | 44.0-131    |               |                | 0.505 | 20         |  |  |
| Naphthalene            | 0.0800   | 0.0655     | 0.0681      | 81.9     | 85.2      | 50.0-120    |               |                | 3.89  | 20         |  |  |
| Phenanthrene           | 0.0800   | 0.0700     | 0.0688      | 87.5     | 86.0      | 48.0-120    |               |                | 1.76  | 20         |  |  |
| Pyrene                 | 0.0800   | 0.0721     | 0.0709      | 90.2     | 88.7      | 48.0-135    |               |                | 1.71  | 20         |  |  |
| 1-Methylnaphthalene    | 0.0800   | 0.0752     | 0.0780      | 94.0     | 97.5      | 52.0-122    |               |                | 3.57  | 20         |  |  |
| 2-Methylnaphthalene    | 0.0800   | 0.0705     | 0.0730      | 88.2     | 91.3      | 52.0-120    |               |                | 3.47  | 20         |  |  |
| 2-Chloronaphthalene    | 0.0800   | 0.0679     | 0.0701      | 84.9     | 87.6      | 50.0-120    |               |                | 3.06  | 20         |  |  |
| (S) Nitrobenzene-d5    |  |            |             | 83.7     | 83.6      | 14.0-149    |               |                |       |            |  |  |
| (S) 2-Fluorobiphenyl   |  |            |             | 80.5     | 80.6      | 34.0-125    |               |                |       |            |  |  |
| (S) p-Terphenyl-d14    |  |            |             | 81.2     | 79.0      | 23.0-120    |               |                |       |            |  |  |
|                        |  |            |             |          |           |             |               |                |       |            |  |  |

## L967387-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

.....

| S) L967387-04 02/04/18 14:57 • (MS) R3283931-4 02/04/18 15:19 • (MSD) R3283931-5 02/04/18 15:41 |   |  |   |  |  |   |  |  |  |  |   |  |
|---|---|--|---|--|--|---|--|--|--|--|---|--|
| •   | 5   |  |   |  |  | Dilution  |  | MS Qualifier   | MSD Qualifier  |  |   |  |
| mg/kg   | mg/kg   | mg/kg  | mg/kg   | %  | %  |   | %  |  |  | %  | %   |  |
| 0.0800  | ND  | 0.0639   | 0.0670  | 79.9   | 83.7   | 1   | 20.0-136   |  |  | 4.67   | 24  |  |
| 0.0800  | ND  | 0.0556   | 0.0634  | 69.5   | 79.2   | 1   | 29.0-124   |  |  | 13.0   | 20  |  |
| 0.0800  | ND  | 0.0585   | 0.0660  | 73.2   | 82.6   | 1   | 35.0-120   |  |  | 12.0   | 20  |  |
| 0.0800  | ND  | 0.0557   | 0.0625  | 69.6   | 78.2   | 1   | 13.0-132   |  |  | 11.6   | 27  |  |
| 0.0800  | ND  | 0.0560   | 0.0635  | 70.0   | 79.3   | 1   | 14.0-138   |  |  | 12.5   | 27  |  |
| 0.0800  | ND  | 0.0501   | 0.0572  | 62.7   | 71.5   | 1   | 10.0-129   |  |  | 13.2   | 31  |  |
| 0.0800  | ND  | 0.0566   | 0.0626  | 69.6   | 77.0   | 1   | 10.0-133   |  |  | 9.99   | 30  |  |
| 0.0800  | ND  | 0.0574   | 0.0645  | 71.8   | 80.6   | 1   | 15.0-131   |  |  | 11.6   | 27  |  |
| 0.0800  | ND  | 0.0592   | 0.0665  | 74.0   | 83.2   | 1   | 15.0-137   |  |  | 11.7   | 25  |  |
| 0.0800  | ND  | 0.0594   | 0.0639  | 74.3   | 79.9   | 1   | 15.0-132   |  |  | 7.25   | 27  |  |
| 0.0800  | ND  | 0.0568   | 0.0621  | 71.0   | 77.6   | 1   | 13.0-139   |  |  | 9.01   | 28  |  |
| 0.0800  | ND  | 0.0529   | 0.0597  | 66.1   | 74.6   | 1   | 27.0-122   |  |  | 12.1   | 22  |  |
| 0.0800  | ND  | 0.0574   | 0.0623  | 71.8   | 77.9   | 1   | 11.0-133   |  |  | 8.18   | 29  |  |
| 0.0800  | ND  | 0.0568   | 0.0634  | 71.0   | 79.3   | 1   | 18.0-136   |  |  | 11.0   | 21  |  |
| 0.0800  | ND  | 0.0531   | 0.0609  | 66.4   | 76.1   | 1   | 15.0-133   |  |  | 13.7   | 25  |  |
| 0.0800  | ND  | 0.0557   | 0.0636  | 67.8   | 77.8   | 1   | 11.0-146   |  |  | 13.3   | 29  |  |
| 0.0800  | ND  | 0.0638   | 0.0661  | 79.7   | 82.6   | 1   | 24.0-137   |  |  | 3.49   | 22  |  |
| 0.0800  | ND  | 0.0602   | 0.0621  | 75.3   | 77.6   | 1   | 23.0-136   |  |  | 3.01   | 22  |  |
| 0.0800  | ND  | 0.0609   | 0.0632  | 76.1   | 78.9   | 1   | 36.0-120   |  |  | 3.71   | 20  |  |
|   |   |  |   | 68.7   | 77.6   |   | 14.0-149   |  |  |  |   |  |
|   |   |  |   | 69.9   | 71.5   |   | 34.0-125   |  |  |  |   |  |
|   |   |  |   | 64.1   | 70.4   |   | 23.0-120   |  |  |  |   |  |
| nt No: 11-680-RC  | GL-GRI-00001-   | 00   |   |  | Revision   | • 1   |  |  |  |  | Reissued for L  | lse  |
| -   |   |  | PRC   | JECT   | Revision   |   | SDG  |  | DATE   | TIME.  |   | PAGE:  |
|   |   |  |   |  |  |   |  |  |  |  |   | 42 of 52   |
|   | Spike Amount           mg/kg           0.0800 | Spike Amount         Original Result           mg/kg         mg/kg           0.0800         ND           0.0800         ND | Spike Amount         Original Result<br>mg/kg         MS Result<br>mg/kg           0.0800         ND         0.0639           0.0800         ND         0.0556           0.0800         ND         0.0557           0.0800         ND         0.0557           0.0800         ND         0.0557           0.0800         ND         0.0560           0.0800         ND         0.0561           0.0800         ND         0.0561           0.0800         ND         0.0561           0.0800         ND         0.0574           0.0800         ND         0.0592           0.0800         ND         0.0594           0.0800         ND         0.0529           0.0800         ND         0.0574           0.0800         ND         0.0638           0.0800         ND         0.0602      0 | Spike Amount         Original Result         MS Result         MSD Result           mg/kg         mg/kg         mg/kg         mg/kg           0.0800         ND         0.0639         0.0670           0.0800         ND         0.0556         0.0634           0.0800         ND         0.0557         0.0625           0.0800         ND         0.0557         0.0625           0.0800         ND         0.0560         0.0572           0.0800         ND         0.0566         0.0626           0.0800         ND         0.0566         0.0626           0.0800         ND         0.0574         0.0645           0.0800         ND         0.0592         0.0665           0.0800         ND         0.0594         0.0623           0.0800         ND         0.0574         0.0623           0.0800         ND         0.0574         0.0623           0.0800         ND         0.0574         0.0623           0.0800         ND         0.0574         0.0636           0.0800         ND         0.0574         0.0636           0.0800         ND         0.0577         0.0636 <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MSD Result<br/>mg/kg         MS Rec.<br/>mg/kg           0.0800         ND         0.0639         0.0670         79.9           0.0800         ND         0.0556         0.0634         69.5           0.0800         ND         0.0556         0.0634         69.5           0.0800         ND         0.0557         0.0625         69.6           0.0800         ND         0.0560         0.0635         70.0           0.0800         ND         0.0560         0.0625         69.6           0.0800         ND         0.0560         0.0625         69.6           0.0800         ND         0.0574         0.0645         71.8           0.0800         ND         0.0574         0.0665         74.0           0.0800         ND         0.0574         0.0632         71.8           0.0800         ND         0.0574         0.0623         71.8           0.0800         ND         0.0574         0.0623         71.8           0.0800         ND         0.0574         0.0633         71.6           0.0800         ND         0.0571         0.0636         67.8</td><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MS Result<br/>mg/kg         MS Rec.<br/>mg/kg         MSD Result<br/>mg/kg         MS Rec.<br/>mg/kg         MSD Result<br/>mg/kg         MSD Result<br/>mg/kg<!--</td--><td>Spike Amoun         Original Result         MS Result         MSD Result         MS Rec.         MSD Rec.         MSD Rec.         Dilution           mg/kg         mg/kg         mg/kg         0.0670         79.9         83.7         1           0.0800         ND         0.0556         0.0634         69.5         79.2         1           0.0800         ND         0.0556         0.0660         73.2         82.6         1           0.0800         ND         0.0557         0.0625         69.6         78.2         1           0.0800         ND         0.0560         0.0635         70.0         79.3         1           0.0800         ND         0.0560         0.0626         69.6         77.0         1           0.0800         ND         0.0564         0.0626         69.6         77.0         1           0.0800         ND         0.0574         0.0655         74.0         83.2         1           0.0800         ND         0.0594         0.0637         74.3         79.9         1           0.0800         ND         0.0574         0.0623         71.8         77.9         1           0.0800         ND         <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MSD Result<br/>mg/kg         MSD Rec.<br/>%         Dilution<br/>%         Rec. Limits<br/>%           0.0800         ND         0.0639         0.0670         79.9         83.7         1         20.0136           0.0800         ND         0.0556         0.0634         69.5         79.2         1         29.0124           0.0800         ND         0.0557         0.0625         69.6         78.2         1         35.0120           0.0800         ND         0.0557         0.0625         69.6         78.2         1         10.0132           0.0800         ND         0.0560         0.0635         70.0         79.3         1         10.0129           0.0800         ND         0.0561         0.0625         67.6         71.5         1         10.0129           0.0800         ND         0.0564         0.0635         71.6         1         15.0131           0.0800         ND         0.0574         0.0665         74.0         83.2         1         15.0132           0.0800         ND         0.0584         0.0621         71.0         77.6         1         10.0133           0.0800</td><td>Spike Amount       Original Result       MSD Result       MSD Rec.       MSD Rec.       Dilution       Rec. Limits       MS Qualifier         mg/kg       mg/kg       mg/kg       %<!--</td--><td>Spike Amount         Original Result         MS Result         MS Decsult         MS Pace.         MSD Rec.         Dilution         Rec. Limits         MS Qualifier         MSD Qualifier           mg/kg         mg/kg         %         <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MS Decsit<br/>mg/kg         MSD Result<br/>%         MSD Result %         MSD Result %</td><td>Spike Amoun         Original Resul         MS Result         MS Result         MS Result         MS Dec.         MS Dec.         MISD         Res.         MS Dec.         MS Dec.</td></td<></td></td></td<></td></td></td<> | Spike Amount<br>mg/kg         Original Result<br>mg/kg         MS Result<br>mg/kg         MSD Result<br>mg/kg         MS Rec.<br>mg/kg           0.0800         ND         0.0639         0.0670         79.9           0.0800         ND         0.0556         0.0634         69.5           0.0800         ND         0.0556         0.0634         69.5           0.0800         ND         0.0557         0.0625         69.6           0.0800         ND         0.0560         0.0635         70.0           0.0800         ND         0.0560         0.0625         69.6           0.0800         ND         0.0560         0.0625         69.6           0.0800         ND         0.0574         0.0645         71.8           0.0800         ND         0.0574         0.0665         74.0           0.0800         ND         0.0574         0.0632         71.8           0.0800         ND         0.0574         0.0623         71.8           0.0800         ND         0.0574         0.0623         71.8           0.0800         ND         0.0574         0.0633         71.6           0.0800         ND         0.0571         0.0636         67.8 | Spike Amount<br>mg/kg         Original Result<br>mg/kg         MS Result<br>mg/kg         MS Result<br>mg/kg         MS Rec.<br>mg/kg         MSD Result<br>mg/kg         MS Rec.<br>mg/kg         MSD Result<br>mg/kg         MSD Result<br>mg/kg </td <td>Spike Amoun         Original Result         MS Result         MSD Result         MS Rec.         MSD Rec.         MSD Rec.         Dilution           mg/kg         mg/kg         mg/kg         0.0670         79.9         83.7         1           0.0800         ND         0.0556         0.0634         69.5         79.2         1           0.0800         ND         0.0556         0.0660         73.2         82.6         1           0.0800         ND         0.0557         0.0625         69.6         78.2         1           0.0800         ND         0.0560         0.0635         70.0         79.3         1           0.0800         ND         0.0560         0.0626         69.6         77.0         1           0.0800         ND         0.0564         0.0626         69.6         77.0         1           0.0800         ND         0.0574         0.0655         74.0         83.2         1           0.0800         ND         0.0594         0.0637         74.3         79.9         1           0.0800         ND         0.0574         0.0623         71.8         77.9         1           0.0800         ND         <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MSD Result<br/>mg/kg         MSD Rec.<br/>%         Dilution<br/>%         Rec. Limits<br/>%           0.0800         ND         0.0639         0.0670         79.9         83.7         1         20.0136           0.0800         ND         0.0556         0.0634         69.5         79.2         1         29.0124           0.0800         ND         0.0557         0.0625         69.6         78.2         1         35.0120           0.0800         ND         0.0557         0.0625         69.6         78.2         1         10.0132           0.0800         ND         0.0560         0.0635         70.0         79.3         1         10.0129           0.0800         ND         0.0561         0.0625         67.6         71.5         1         10.0129           0.0800         ND         0.0564         0.0635         71.6         1         15.0131           0.0800         ND         0.0574         0.0665         74.0         83.2         1         15.0132           0.0800         ND         0.0584         0.0621         71.0         77.6         1         10.0133           0.0800</td><td>Spike Amount       Original Result       MSD Result       MSD Rec.       MSD Rec.       Dilution       Rec. Limits       MS Qualifier         mg/kg       mg/kg       mg/kg       %<!--</td--><td>Spike Amount         Original Result         MS Result         MS Decsult         MS Pace.         MSD Rec.         Dilution         Rec. Limits         MS Qualifier         MSD Qualifier           mg/kg         mg/kg         %         <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MS Decsit<br/>mg/kg         MSD Result<br/>%         MSD Result %         MSD Result %</td><td>Spike Amoun         Original Resul         MS Result         MS Result         MS Result         MS Dec.         MS Dec.         MISD         Res.         MS Dec.         MS Dec.</td></td<></td></td></td<></td> | Spike Amoun         Original Result         MS Result         MSD Result         MS Rec.         MSD Rec.         MSD Rec.         Dilution           mg/kg         mg/kg         mg/kg         0.0670         79.9         83.7         1           0.0800         ND         0.0556         0.0634         69.5         79.2         1           0.0800         ND         0.0556         0.0660         73.2         82.6         1           0.0800         ND         0.0557         0.0625         69.6         78.2         1           0.0800         ND         0.0560         0.0635         70.0         79.3         1           0.0800         ND         0.0560         0.0626         69.6         77.0         1           0.0800         ND         0.0564         0.0626         69.6         77.0         1           0.0800         ND         0.0574         0.0655         74.0         83.2         1           0.0800         ND         0.0594         0.0637         74.3         79.9         1           0.0800         ND         0.0574         0.0623         71.8         77.9         1           0.0800         ND <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MSD Result<br/>mg/kg         MSD Rec.<br/>%         Dilution<br/>%         Rec. Limits<br/>%           0.0800         ND         0.0639         0.0670         79.9         83.7         1         20.0136           0.0800         ND         0.0556         0.0634         69.5         79.2         1         29.0124           0.0800         ND         0.0557         0.0625         69.6         78.2         1         35.0120           0.0800         ND         0.0557         0.0625         69.6         78.2         1         10.0132           0.0800         ND         0.0560         0.0635         70.0         79.3         1         10.0129           0.0800         ND         0.0561         0.0625         67.6         71.5         1         10.0129           0.0800         ND         0.0564         0.0635         71.6         1         15.0131           0.0800         ND         0.0574         0.0665         74.0         83.2         1         15.0132           0.0800         ND         0.0584         0.0621         71.0         77.6         1         10.0133           0.0800</td><td>Spike Amount       Original Result       MSD Result       MSD Rec.       MSD Rec.       Dilution       Rec. Limits       MS Qualifier         mg/kg       mg/kg       mg/kg       %<!--</td--><td>Spike Amount         Original Result         MS Result         MS Decsult         MS Pace.         MSD Rec.         Dilution         Rec. Limits         MS Qualifier         MSD Qualifier           mg/kg         mg/kg         %         <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MS Decsit<br/>mg/kg         MSD Result<br/>%         MSD Result %         MSD Result %</td><td>Spike Amoun         Original Resul         MS Result         MS Result         MS Result         MS Dec.         MS Dec.         MISD         Res.         MS Dec.         MS Dec.</td></td<></td></td></td<> | Spike Amount<br>mg/kg         Original Result<br>mg/kg         MS Result<br>mg/kg         MSD Result<br>mg/kg         MSD Rec.<br>%         Dilution<br>%         Rec. Limits<br>%           0.0800         ND         0.0639         0.0670         79.9         83.7         1         20.0136           0.0800         ND         0.0556         0.0634         69.5         79.2         1         29.0124           0.0800         ND         0.0557         0.0625         69.6         78.2         1         35.0120           0.0800         ND         0.0557         0.0625         69.6         78.2         1         10.0132           0.0800         ND         0.0560         0.0635         70.0         79.3         1         10.0129           0.0800         ND         0.0561         0.0625         67.6         71.5         1         10.0129           0.0800         ND         0.0564         0.0635         71.6         1         15.0131           0.0800         ND         0.0574         0.0665         74.0         83.2         1         15.0132           0.0800         ND         0.0584         0.0621         71.0         77.6         1         10.0133           0.0800 | Spike Amount       Original Result       MSD Result       MSD Rec.       MSD Rec.       Dilution       Rec. Limits       MS Qualifier         mg/kg       mg/kg       mg/kg       % </td <td>Spike Amount         Original Result         MS Result         MS Decsult         MS Pace.         MSD Rec.         Dilution         Rec. Limits         MS Qualifier         MSD Qualifier           mg/kg         mg/kg         %         <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MS Decsit<br/>mg/kg         MSD Result<br/>%         MSD Result %         MSD Result %</td><td>Spike Amoun         Original Resul         MS Result         MS Result         MS Result         MS Dec.         MS Dec.         MISD         Res.         MS Dec.         MS Dec.</td></td<></td> | Spike Amount         Original Result         MS Result         MS Decsult         MS Pace.         MSD Rec.         Dilution         Rec. Limits         MS Qualifier         MSD Qualifier           mg/kg         mg/kg         % <td< td=""><td>Spike Amount<br/>mg/kg         Original Result<br/>mg/kg         MS Result<br/>mg/kg         MS Decsit<br/>mg/kg         MSD Result<br/>%         MSD Result %         MSD Result %</td><td>Spike Amoun         Original Resul         MS Result         MS Result         MS Result         MS Dec.         MS Dec.         MISD         Res.         MS Dec.         MS Dec.</td></td<> | Spike Amount<br>mg/kg         Original Result<br>mg/kg         MS Result<br>mg/kg         MS Decsit<br>mg/kg         MSD Result<br>%         MSD Result %         MSD Result % | Spike Amoun         Original Resul         MS Result         MS Result         MS Result         MS Dec.         MS Dec.         MISD         Res.         MS Dec.         MS Dec. |

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

## QUALITY CONTROL SUMMARY

L967603-02,04,05

Ср

### Method Blank (MB)

| (MB) R3284224-3 02/05  | 5/18 03:01 |              |         |          |
|------------------------|------------|--------------|---------|----------|
|                        | MB Result  | MB Qualifier | MB MDL  | MB RDL   |
| Analyte                | ug/l       |              | ug/l    | ug/l     |
| Anthracene             | U          |              | 0.0140  | 0.0500   |
| Acenaphthene           | U          |              | 0.0100  | 0.0500   |
| Acenaphthylene         | U          |              | 0.0120  | 0.0500   |
| Benzo(a)anthracene     | U          |              | 0.00410 | 0.0500   |
| Benzo(a)pyrene         | U          |              | 0.0116  | 0.0500   |
| Benzo(b)fluoranthene   | 0.00299    | J            | 0.00212 | 0.0500   |
| Benzo(g,h,i)perylene   | 0.00295    | J            | 0.00227 | 0.0500   |
| Benzo(k)fluoranthene   | U          |              | 0.0136  | 0.0500   |
| Chrysene               | U          |              | 0.0108  | 0.0500   |
| Dibenz(a,h)anthracene  | U          |              | 0.00396 | 0.0500   |
| Fluoranthene           | U          |              | 0.0157  | 0.0500   |
| Fluorene               | U          |              | 0.00850 | 0.0500   |
| Indeno(1,2,3-cd)pyrene | U          |              | 0.0148  | 0.0500   |
| Naphthalene            | 0.0206     | J            | 0.0198  | 0.250    |
| Phenanthrene           | U          |              | 0.00820 | 0.0500   |
| Pyrene                 | U          |              | 0.0117  | 0.0500   |
| 1-Methylnaphthalene    | U          |              | 0.00821 | 0.250    |
| 2-Methylnaphthalene    | U          |              | 0.00902 | 0.250    |
| 2-Chloronaphthalene    | U          |              | 0.00647 | 0.250    |
| (S) Nitrobenzene-d5    | 91.9       |              |         | 31.0-160 |
| (S) 2-Fluorobiphenyl   | 120        |              |         | 48.0-148 |
| (S) p-Terphenyl-d14    | 107        |              |         | 37.0-146 |

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

| (LCS) R3284224-1 02/0 | 05/18 02:17 • (LCSI | D) R3284224- | 2 02/05/18 02 | :39      |           |             |               |                |      |            |                  |
|-----------------------|---------------------|--------------|---------------|----------|-----------|-------------|---------------|----------------|------|------------|------------------|
|                       | Spike Amount        | LCS Result   | LCSD Result   | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |                  |
| Analyte               | ug/l                | ug/l         | ug/l          | %        | %         | %           |               |                | %    | %          |                  |
| Anthracene            | 2.00                | 2.31         | 2.43          | 116      | 121       | 64.0-142    |               |                | 4.93 | 20         |                  |
| Acenaphthene          | 2.00                | 2.08         | 2.16          | 104      | 108       | 66.0-132    |               |                | 3.86 | 20         |                  |
| Acenaphthylene        | 2.00                | 2.09         | 2.19          | 105      | 109       | 65.0-132    |               |                | 4.48 | 20         |                  |
| Benzo(a)anthracene    | 2.00                | 1.95         | 2.05          | 97.7     | 102       | 59.0-134    |               |                | 4.67 | 20         |                  |
| Benzo(a)pyrene        | 2.00                | 2.18         | 2.28          | 109      | 114       | 61.0-145    |               |                | 4.55 | 20         |                  |
| Benzo(b)fluoranthene  | 2.00                | 2.02         | 2.11          | 101      | 106       | 57.0-136    |               |                | 4.71 | 20         |                  |
| Benzo(g,h,i)perylene  | 2.00                | 2.24         | 2.35          | 112      | 118       | 54.0-140    |               |                | 4.73 | 20         |                  |
| Benzo(k)fluoranthene  | 2.00                | 2.25         | 2.36          | 112      | 118       | 57.0-141    |               |                | 5.01 | 20         |                  |
| Chrysene              | 2.00                | 2.18         | 2.30          | 109      | 115       | 63.0-140    |               |                | 5.26 | 20         |                  |
| Dibenz(a,h)anthracene | 2.00                | 2.23         | 2.34          | 111      | 117       | 49.0-141    |               |                | 4.73 | 20         |                  |
| Fluoranthene          | 2.00                | 2.42         | 2.54          | 121      | 127       | 65.0-143    |               |                | 4.77 | 20         |                  |
| Docume                | ent No: J1-680-RO   | GL-GRI-00001 | -00           |          |           | Revision:   | 1             |                |      |            | Reissued for Use |
|                       | ACCOUNT:            |              |               | PRC      | JECT:     |             | SDG:          |                |      | DATE/TIME: | PAGE:            |

GRI - Beaverton, OR 5764-1195 L967603 02/07/18 17:58

## QUALITY CONTROL SUMMARY L967603-02,04,05

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

Тс

Ss

Cn

Sr

Qc

GI

Â

Sc

| (LCS) R3284224-1 02/0  | CS) R3284224-1 02/05/18 02:17 • (LCSD) R3284224-2 02/05/18 02:39 |            |             |          |           |             |               |                |      |            |  |
|------------------------|--|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|--|
|                        | Spike Amount   | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |  |
| Analyte                | ug/l   | ug/l       | ug/l        | %        | %         | %           |               |                | %    | %          |  |
| Fluorene               | 2.00   | 2.11       | 2.22        | 105      | 111       | 64.0-129    |               |                | 5.34 | 20         |  |
| Indeno(1,2,3-cd)pyrene | 2.00   | 2.23       | 2.34        | 111      | 117       | 53.0-141    |               |                | 4.83 | 20         |  |
| Naphthalene            | 2.00   | 2.15       | 2.24        | 108      | 112       | 68.0-129    |               |                | 3.66 | 20         |  |
| Phenanthrene           | 2.00   | 1.99       | 2.08        | 99.3     | 104       | 62.0-132    |               |                | 4.50 | 20         |  |
| Pyrene                 | 2.00   | 1.96       | 2.05        | 98.1     | 102       | 58.0-156    |               |                | 4.40 | 20         |  |
| 1-Methylnaphthalene    | 2.00   | 2.37       | 2.45        | 119      | 123       | 68.0-137    |               |                | 3.27 | 20         |  |
| 2-Methylnaphthalene    | 2.00   | 2.29       | 2.36        | 114      | 118       | 68.0-134    |               |                | 3.26 | 20         |  |
| 2-Chloronaphthalene    | 2.00   | 2.24       | 2.35        | 112      | 118       | 65.0-129    |               |                | 4.99 | 20         |  |
| (S) Nitrobenzene-d5    |  |            |             | 89.4     | 99.9      | 31.0-160    |               |                |      |            |  |
| (S) 2-Fluorobiphenyl   |  |            |             | 119      | 126       | 48.0-148    |               |                |      |            |  |
| (S) p-Terphenyl-d14    |  |            |             | 108      | 116       | 37.0-146    |               |                |      |            |  |
|                        |  |            |             |          |           |             |               |                |      |            |  |

| Document No: J1-680-RGL-GRI-00001-00 | F         | Revision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L967603     | 02/07/18 17:58 | 44 of 52        |

## GLOSSARY OF TERMS

## ¥

Τс

Ss

Cn

Sr

*Q*c

GI

AI

Sc

#### Guide to Reading and Understanding Your Laboratory Report

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

#### Abbreviations and Definitions

|                                 | Depute we repeated been deputed by the depute of the second of this will put the properties a depute of the state for solid  |
|---------------------------------|--|
| (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, 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<br>for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or<br>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<br>no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL"<br>(Below Detectable Levels). The information in the results column should always be accompanied by either an MDL<br>(Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect<br>or report for this analyte. |
| Case Narrative (Cn)             | A brief discussion about the included sample results, including a discussion of any non-conformances to protocol<br>observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will<br>be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.  |
| Quality Control<br>Summary (Qc) | This section of the report includes the results of the laboratory quality control analyses required by procedure or<br>analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not<br>being performed on your samples typically, but on laboratory generated material.  |
| Sample Chain of<br>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  |
|-----------|--|
| В         | The same analyte is found in the associated blank.                                       |
| J         | The identification of the analyte is acceptable; the reported value is an estimate.      |
| J2        | Surrogate recovery limits have been exceeded; values are outside lower control limits.   |
| J3        | The associated batch QC was outside the established quality control range for precision. |
| J4        | The associated batch QC was outside the established quality control range for accuracy.  |
| J7        | Surrogate recovery cannot be used for control limit evaluation due to dilution.          |

| Document No: J1-680-RGL-GRI-00001-00 |  |
|--------------------------------------|--|
| ACCOUNT:                             |  |
| GRI - Beaverton, OR                  |  |

Revision: 1 PROJECT:

5764-1195

SDG: L967603 Reissued for Use DATE/TIME: 02/07/18 17:58

PAGE: 45 of 52

## ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE. \* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

#### State Accreditations

| Alabama               | 40660       |
|-----------------------|-------------|
| Alaska                | UST-080     |
| Arizona               | AZ0612      |
| Arkansas              | 88-0469     |
| California            | 01157CA     |
| Colorado              | TN00003     |
| Connecticut           | PH-0197     |
| Florida               | E87487      |
| Georgia               | NELAP       |
| Georgia <sup>1</sup>  | 923         |
| Idaho                 | TN00003     |
| Illinois              | 200008      |
| Indiana               | C-TN-01     |
| lowa                  | 364         |
| Kansas                | E-10277     |
| Kentucky <sup>1</sup> | 90010       |
| Kentucky <sup>2</sup> | 16          |
| Louisiana             | AI30792     |
| Maine                 | TN0002      |
| Maryland              | 324         |
| Massachusetts         | M-TN003     |
| Michigan              | 9958        |
| Minnesota             | 047-999-395 |
| Mississippi           | TN00003     |
| Missouri              | 340         |
| Montana               | CERT0086    |
| Nebraska              | NE-OS-15-05 |
|                       |             |

| Nevada                      | TN-03-2002-34     |
|-----------------------------|-------------------|
| New Hampshire               | 2975              |
| New Jersey–NELAP            | TN002             |
| New Mexico                  | TN00003           |
| New York                    | 11742             |
| North Carolina              | Env375            |
| North Carolina <sup>1</sup> | DW21704           |
| North Carolina <sup>2</sup> | 41                |
| North Dakota                | R-140             |
| Ohio-VAP                    | CL0069            |
| Oklahoma                    | 9915              |
| Oregon                      | TN200002          |
| Pennsylvania                | 68-02979          |
| Rhode Island                | 221               |
| South Carolina              | 84004             |
| South Dakota                | n/a               |
| Tennessee <sup>1 4</sup>    | 2006              |
| Texas                       | T 104704245-07-TX |
| Texas ⁵                     | LAB0152           |
| Utah                        | 6157585858        |
| Vermont                     | VT2006            |
| Virginia                    | 109               |
| Washington                  | C1915             |
| West Virginia               | 233               |
| Wisconsin                   | 9980939910        |
| Wyoming                     | A2LA              |
|                             |                   |

#### Third Party Federal Accreditations

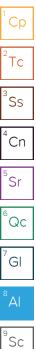
| A2LA – ISO 17025   | 1461.01 | AIHA-LAP,LLC | 100789  |
|--------------------|---------|--------------|---------|
| A2LA – ISO 17025 5 | 1461.02 | DOD          | 1461.01 |
| Canada             | 1461.01 | USDA         | S-67674 |
| EPA-Crypto         | TN00003 |              |         |

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

#### **Our Locations**

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





|   |   | 10000               | Billing Info                         | ormation:                     | 1000                |           |                |                | 1                    | Analysis            | / Conta                         | iner / Preservativ       | 1         |                     | Chain of Cust   | ody Page L of 4  |
|---|---|---------------------|--------------------------------------|-------------------------------|---------------------|-----------|----------------|----------------|----------------------|---------------------|---------------------------------|--------------------------|-----------|---------------------|---|--|
| GRI - Beaverton, OR   |   |                     | Patty No                             |                               |                     | Pres      | The second     |                |                      | 125                 |                                 | 177 188                  |           |                     | Ind.  | FCC  |
| 9750 SW Nimbus Avenue<br>Beaverton, OR 97008  |   |                     | Contraction of the second            | V Nimbus Aver<br>on, OR 97008 | nue                 | Chk       |                |                | 1                    |                     | 3.5                             |                          |           |                     |   | ESC  |
| Report to:<br>Nora Utevsky  |   |                     | Email To: I                          | nutevsky@gri.com              | n; mmarshall@gr     | i.com     |                |                |                      | es.                 | Ŧ                               |                          |           |                     | 12065 Lebanor<br>Mount Juliet, T                          | N 37122  |
| Project<br>Description: 5764-   | 1195                                      |                     |                                      | City/State<br>Collected: 0    | DOS BAY             | OR        | es             | res            | MeOH                 | -NoPr               | /MeO                            |                          |           |                     | Phone: 615-758<br>Phone: 800-767<br>Fax: 615-758-51       | -5859  |
| Phone: <b>503-641-3478</b><br>Fax:  | Client Project                            |                     |                                      | Lab Project #<br>GRIBOR-576   | 4                   |           | 16ozClr-NoPres | 16ozClr-NoPres | 40ml/NaHS04/Syr/MeOH | PAHs 16ozClr-NoPres | 04/54                           |                          |           |                     | 1.# 76<br>F16   | 7 607<br>51  |
| Collected by (print):<br>N. Utensky   | Site/Facility ID                          | 0#                  |                                      | P.O. #                        |                     |           | 16ozC          | r 16oz         | VaHSO                | PAHS 1              | //NaHS                          |                          |           |                     | Acctnum: G  | RIBOR  |
| Collected by (signature):   | A PROPERTY OF A PROPERTY OF               | ab MUST Be          | S.W. Constant                        | Quote #                       |                     |           | etals          | DSG1           | ml/I                 | MD                  | Inom                            |                          | -         |                     | Template T  |  |
| Immediately<br>Packed on Ice N_Y_X  | Same Da<br>Next Da<br>Two Day<br>Three Da | y 5 Da              | Day<br>y (Rad Only)<br>ay (Rad Only) | Date Res                      | ults Needed         | No.<br>of | N              | NWTPHDX NOSGT  |                      | SV8270PAHSIMD       | V8260 VOCs 40ml/NaHS04/Syr/MeOH |                          |           |                     | Prelogin: Pl<br>TSR: 110 - B<br>PB: - 9                   | A AND A DESCRIPTION OF A D  |
| Sample ID   | Comp/Grab                                 | Matrix *            | Depth                                | Date                          | Time                | Cntrs     | 40109W         | NWTP           | NWTPHGX              | SV827               | /8260                           |                          |           |                     | Shipped Via<br>Remarks                                    | FedEX Ground   |
| BP-101-W  |   | Gas)                |                                      | 1/20/18                       | 1428                | 12        |                | -              | 1                    | 01                  | -                               |                          | -         |                     | *   | and the stress s |
| 8P-101 - 7  | 6   | SS                  | 7                                    | 1/20/18                       | 1514                | 5         |                |                | 155                  |                     | 32                              |                          | 25        | 100                 | 1   | 10 00000002  |
| BP-101-30   | 6   | SS                  | 30                                   | 1/29/1                        | 5 1539              | 5         |                | 124            | Terry                |                     | 1.5                             | 1.1                      |           |                     | 25  | CONCERNING IN  |
| BP-102-12   | G   | SS                  | 12                                   | 1/29/18                       | 1643                | 5         |                |                |                      |                     |                                 | 1.85                     |           |                     |   | 01   |
| RP-102-20   | G   | SS                  | 20                                   | 1/29/18                       | 1636                | 5         | 100            | 1514           | 1585                 | 100                 |                                 |                          | 1.1       | 1.1.1               |   | A REPORT   |
| BP-103-13   | G   | SS                  | 13                                   | 1/30/18                       | 858                 | 5         |                |                | (Shia                | 1.24                | 200                             | 1 - 1 - 2 - 2 - 2        |           | and a               |   | Contraction of the   |
| BP-104-13   | G   | SS                  | 13                                   | 1/50/18                       | 948                 | 5         |                |                | in the set           |                     | 1999                            | 11.12 S.N.1              |           | 025                 | 100   | - Caracandar   |
| BP-104-20   | G   | SS                  | 20                                   | 1/50/19                       | 948                 | S         | 24             | 1.45           |                      | 218                 |                                 |                          | 1         | 1.5                 |   | - States   |
| R1-102-W  | 14190                                     | GBS                 | 1222                                 | 1/30/18                       | 1002                | 12        | NS-1           |                | 238                  |                     |                                 |                          |           | 1.1.5               | 1   | 52   |
| BP-106-13   | G   | SS                  | 13                                   | 1/30/12                       | 104                 | 5         | 1. 1           |                | and the              |                     |                                 |                          |           | 120                 | J.  | 120000   |
| * Matrix:<br>SS - Soil AIR - Air F - Filter<br>GW - Groundwater B - Bioassay<br>WW - WasteWater | Remarks:<br>* Se                          | e Gr                | -1 em                                | iai lini                      | th an               | al'       | Yti            | cal            | 109                  | Pert-               | *                               | Temp<br>Other            | Bott      | Seal Pr<br>Signed// | ive intact:   | AP X-N   |
| DW - Drinking Water  OT - Other   | Samples retur<br>UPSFe                    | ned via:<br>dEx Cou | urier                                | Tr                            | acking# 4           | 196       |                | 321            | 61                   | 33                  | 339                             |                          | Şufi      | licient w           | tles used:<br>volume sent<br><u>If Applic</u><br>edspace: |  |
| Relinquished by : (Signature)   |   | Date: 2/2/          | 18                                   | Firme: R4                     | eceived by: (Signa  | ture)     |                |                |                      | Trip Blar           | nk Recei                        | Veg (e) / No<br>Hol / Me | Pres      |                     | adapaçe:<br>n Correct/C                                   | Checked: $\underbrace{4}_{Y} \underbrace{-}_{N}^{N}$   |
| Relinquished by : (Signature)   | R. Car                                    | Date:               | 1                                    | lime: R                       | eceived by: (Signa  | ture)     | 20             | 1              |                      |                     | 6                               | c Battles Receive        | d: If pre | eservation          | required by L   | ogin: Date/Time  |
| Relinquished by : (Signature) 🛵   | 813 <sup>10,3</sup>                       | Date:               | T                                    | Time: Re                      | eceived for-tals by | Signat    | ture)          |                | 834                  | Date: 2.3.          | 18                              | Time: 74                 | 5 Hold    | 1                   | Tale 4  | NCF / OK   |
| Document No: 11-680-R   |   | 1.00                |                                      | COLUMN STATE                  | Ray                 | ision     | 10             | 98             |                      | V. A STORE          | E.W.                            | 9.9.19                   | 23 133    | Sector Con          | Reissued  | for Liso   |

| CDI D  |                              |  | Billing Inf                | ormation:                 |          |                 | 1 5         |               |                | 1120                         | Analysis                          | s / Cont                        | ainer / Pre | servative | 1900      |  | Chain of Cu:                                     | tada a a                |
|--|------------------------------|--|----------------------------|---------------------------|----------|-----------------|-------------|---------------|----------------|------------------------------|-----------------------------------|---------------------------------|-------------|-----------|-----------|--|--|-------------------------|
| GRI - Beaverton, OR  |                              |  |                            | orgaard                   |          |                 | Pres<br>Chk |               |                |                              |                                   | the second                      |             | dia 1     |           |  | mad  | tody Page 20            |
| 9750 SW Nimbus Avenue<br>Beaverton, OR 97008                                       |                              |  | and states and states and  | V Nimbus A<br>ton, OR 970 |          |                 | Clik        | 1             |                |                              |                                   | 14.2                            |             |           |           |  | L'A-B  | ESC                     |
| Report to:<br>Nora Utevsky   |                              |  | Email To:                  | nutevsky@gri.             | .com; m  | imarshall@gr    | i.com       |               |                | No. 10                       | es                                | T                               |             |           |           |  | 12065 Lebano<br>Mount Juliet, 1                  |                         |
| Project<br>Description: 5764   | 50                           | 1195   |                            | City/State<br>Collected:  | (000     | Bay/            | OR          | ES .          | res            | MeOH                         | -NoPr                             | /MeO                            |             |           | 100       | 1  | Phone: 615-75<br>Phone: 800-76<br>Fax: 615-758-5 | 8-5858<br>7-5859        |
| Phone: 503-641-3478<br>Fax:  | Client Project               | t#   |                            | Lab Project /<br>GRIBOR-5 | #        | <u>.</u>        |             | 6ozClr-NoPres | 16ozClr-NoPres | t/syr/i                      | 6ozClr                            | 04/Syr.                         |             |           |           |  | 1# G6  | 7603                    |
| Collected by (print):<br>N. Utensky  | Site/Facility I              | D#   |                            | P.O. #                    |          |                 |             | 16ozCl        | 16oz(          | IaHS04                       | AHS 1                             | NaHS(                           | No.         |           |           |  | Table #<br>Acctnum: G                            | PIROR                   |
| Collected by (signature):  | Same D                       | the state of the second s | Day                        | Quote #                   |          |                 |             | Metals :      | 40SGT          | Oml/N                        | SIMD F                            | 40ml/                           |             |           |           | 3.2  | Template:T                                       | 131816                  |
| Immediately<br>Packed on Ice N Y   | Next Da<br>Two Da<br>Three D | γ 10 Da  | (Rad Only)<br>y (Rad Only) | Date I                    | Results  | Needed          | No.<br>of   |               | NWTPHDX NOSGT  | NWTPHGX 40ml/NaHS04/Syr/MeOH | SV8270PAHSIMD PAHs 16o2Clr-NoPres | V8260 VOCs 40ml/NaHS04/Syr/MeOH |             |           | Cons.     | 12.23  | Prelogin: Pr<br>TSR: 110 - 8<br>PB:   -  C       | rian Ford               |
| Sample ID  | Comp/Grab                    | Matrix *   | Depth                      | Date                      |          | Time            | Cntrs       | M6010PP       | NWTP           | NWTP                         | 5V827                             | /8260                           |             |           |           | and the second sec | Shipped Via                                      | FedEX Ground            |
| BP-107-12  | 6                            | SS   | 12                         | 1/30/1                    | 8        | 1140            | 5           | 1             | -              | 1000                         |                                   | -                               |             |           | 128 C.S.  |  | Remarks  | Sample # (lab only      |
| BP-108-13  | 6                            | SS   | 13                         | 130                       | 18       | 1309            | 5           | 1.30          |                | Slope                        | 100                               |                                 |             |           | · · ·     |  | 1  | Contraction of the      |
| BP-108-17  | 6                            | SS   | 17                         | 1/30/1                    | 8        | 1302            | _           |               | 2.55           | COLOR H                      |                                   |                                 |             |           |           |  |  |                         |
| BP-109-W   |                              | (Jew)  | 1.1.1.1                    | 1/30/1                    | 8        | 1320            | 12          | 一長市           | 134            |                              |                                   |                                 |             | 201       |           |  | -  | - States                |
| POHD-110-W   | 12.                          | 6633   | 12 . 2                     | NI                        | 4        | 1415            | 12          | Sec.          |                |                              | 1                                 | -35.5                           | -           |           |           |  | 1  |                         |
| FO-111-8   | G                            | SS   | 8                          | 1301                      | 2        | 1500            | 5           |               | -              |                              | -                                 |                                 |             |           |           |  |  | 1 No. 2 Mars            |
| FO-112-9   | G                            | SS   | 9                          | 1/20/14                   | 2        | 1537            |             |               |                |                              | 125                               | 2555                            |             |           |           |  | 50   | 13                      |
| FO-113-8   | 6                            | SS   | 8                          | 120/12                    |          | 1603            | -           |               | 1              | 1.122.2                      |                                   | 1                               |             | -         |           | 1  |  |                         |
| FO-114-13  | G                            | SS   | 13                         | Veni                      | 8        | 1636            |             |               |                |                              |                                   |                                 |             |           | 1000      | -  | 1  |                         |
| FO-116-14  | G                            | SS   | 14                         | 1/3/1                     | 2-       | nalz            | 5           |               |                |                              |                                   | 10.0                            | 100         |           | -         | -  | 1  |                         |
| Matrix:  | Remarks:                     | Section Section  | 1                          | 1 / SAL                   | DI       | ogis            | 1-1         |               | 12.1           | 223                          | -                                 | and the                         |             |           |           |  | V  | 14 Start                |
| iS - Soil AIR - Air E - Filter<br>5W - Groundwater B - Bioassay<br>NW - WasteWater | *5                           | ee v   | note                       | On                        | Pa       | ge 1            | -           |               |                |                              | pH .                              |                                 | _ Temp_     |           | 144441101 | gned/Ac  | Receipt (<br>ent/Intaci<br>curate:<br>e Intact:  | Hecklist                |
| DW - Drinking Water<br>DT - Other  | Samples return               | ned via:<br>dEx Couri  | er                         | and the second            | Trackin  |                 | -           | 100           | 112.201        | 100                          | Flow                              | 1                               | Other_      | a Cartera | Correc    | t bottl  | es used:<br>lume sent:                           |                         |
| Relinquished by : (Signature)  |                              | Date: 2/2/   | In                         |                           | 3.05.113 | ed by: (Signati | ure)        | 140           | 133            | Ti                           | rip Blank                         | Receiv                          |             |           | VOA Ze    | ro Head  | f Applicak                                       | le                      |
| Relinquished by : (Signature)  |                              | Date:  |                            | ~                         | Receive  | ed by: (Signatu | are)        |               | Non-           |                              | 51.                               | 112                             | TBR         |           | 145.02    |  | and the second                                   |                         |
| Relinquished by : (Signature)  | 22.01                        |  |                            |                           |          |                 |             | 1             |                | Te                           | ISP                               | 1. "(                           | Bottles P   | 245       | If preser | vation re  | quired by Lo                                     | gin: Date/Time          |
| reministed by : (Signature)  | Sec. 1                       | Date:  | n                          | me:                       | Receive  | dor no by       | Signatu     | 10            | 83             | 34 00                        | 2.3.                              | 18                              | Time;       | 845       | Hold:     |  |  | Candition:<br>(NCF)/ OK |

|   |  | 200                  | Billing Inform       | mation:  |                     |                        |                | 1                           | A            | nalysis /                         | / Contair                     | ner / Preservative |          | 12.00  | Chain of Cu   | istady             | Page 3 of 4                |
|---|--|----------------------|----------------------|--|---------------------|------------------------|----------------|-----------------------------|--------------|-----------------------------------|-------------------------------|--------------------|----------|--|---|--------------------|----------------------------|
| GRI - Beaverton, OR<br>9750 SW Nimbus Avenue<br>Beaverton, OR 97008                             |  |                      | Patty Nor<br>9750 SW |  | ue                  | Pres<br>Chk            | Z              | S                           |              |                                   | 5                             |                    |          |  |   | E                  |                            |
| Report to:<br>Nora Utevsky  |  |                      | Email To: n          | utevsky@gri.com;   | mmarshall@gri.u     | com                    |                |                             |              | TW-                               | KO3                           |                    |          |  | 12065 Lebar<br>Mount Julie<br>Phone: 615-                         | t, TN 37122        |                            |
| Project   |  | 10.00                |                      | City/State   | 1                   |                        | 103            | U                           | 12 State     | Pres                              | 토                             |                    |          |  | Phone: 800-<br>Fax: 615-75  |                    | 首次事                        |
| Description:  |  | 1250.0               |                      | Collected:   |                     |                        | Ŧ              | H-q                         | Sec.         | Noi                               | IDPI                          |                    | 1        |  | 1.#   | 967                | 1 1                        |
| Phone: <b>503-641-3478</b><br>Fax:  | Client Project                                       |                      |                      | Lab Project #<br>GRIBOR-5764   | •                   |                        | 250mlHDPE-HNO3 | ml Am                       | D            | -dmbl                             | Somlh                         | PH                 |          |  | Table #   | 101                | 605                        |
| Collected by (print):   | Site/Facility ID                                     | W                    |                      | P.O. #   |                     |                        |                | T 100                       | 40mlAmb HCI  | Hs 40m                            | 50102                         | 40mlAmb-HCl        |          |  | Acctnum   |                    | Carl Street and Street and |
| Collected by (signature):<br>Immediately<br>Packed on Ice N Y                                   | Rush? (L<br>Same D:<br>Next Da<br>Two Day<br>Three D | y5 Day<br>/10 D      |                      | Quote #<br>Date Rest   | ults Needed         | No.<br>of              | ss PP metals   | NWTPHDX NOSGT 100ml Amb-HCI | NWTPHGX 40mb | PAHSIMLVID PAHs 40mlAmb-NoPres-WT | PP Metals 6010 250mlHDPE-HN03 | V8260 VOCs 40n     | E. M. M. |  | Prelogin:<br>TSR: 110<br>PB: /                                    | P6357<br>- Brian F | 780<br>Ford<br>186         |
| Sample ID   | Comp/Grab  | Matrix *             | Depth                | Date   | Time                | Cntrs                  | FF Diss        | TWI                         | TWI          | AHS                               | Total                         | /826               |          |  | Shipped   |                    | EX Ground                  |
| FO-111-W  |  | GW                   | Later of             | 1/31/18  | 0920                | 472                    |                | -                           | -            |                                   | -                             | -                  |          |  | *   |                    | oy                         |
| 60-117-13   | G  | Trave                | 13                   | 1/31/18  | 1021                | 5                      |                | 1.1.0                       |              |                                   | 1                             |                    | -        |  | 1   | -                  | 15 BURDIN                  |
| FO-118-W  |  | GW                   |                      | 1/3/18   | 1057                | 17                     | 7              | 1.00                        | 100          | 24                                | 1.2                           |                    | -        |  |   |                    |                            |
| FO-118-4  | G  | 5-GW                 | 4                    | 1/31/18  | 1115                | 5                      | 100            |                             |              |                                   | 1011                          |                    | 2        |  |   | -                  | 1 He rate                  |
| BP-119-W  |  | GW                   |                      | 1/31/18  | 1530                | _                      | -              | -                           | 125          | 120                               |                               |                    | -        | 1000   |   | 92.23              | 05                         |
| BP-119-8  | 6  | SGW                  | 8                    | 1.1.2  | 1555                |                        | 1225           | 1                           | 12123        | -                                 | 1                             |                    |          |  |   |                    | 06                         |
| BP-119-17   | G  | SGW                  | 17                   | 131/18   | 1545                | -                      | -              | 1                           |              | -                                 | 1.00                          |                    | -        | 1000   |   | -                  |                            |
| BP-119-33   | G  | S-GW                 | 33                   | 1/21/6   | 1500                |                        |                |                             | 124          | -                                 | 1500                          |                    | -        | 12000  | -   |                    |                            |
| BP-120-8  | G  | SGW                  | 8                    | 2/1/18   | 0940                | the second division of | 1200           |                             | 1000         | 1.0                               | 1000                          |                    |          | Secold -   |   | ,                  |                            |
| BP-120-11   | G  | \$SGW                | 71                   | 12/1/18  | 0945                | 5                      |                |                             |              |                                   | 1. Salar                      | 1 233              |          |  | ample Bace  | int the            | ASTIAF                     |
| * Matrix:<br>SS - Soil AIR - Air F - Filter<br>GW - Groundwater B - Bioassay<br>WW - WasteWater | Remarks:   | *5                   | ee n                 | lote o   | n po                | 3                      | 2:             | 1                           |              | pi<br>Fic                         | H                             | Temp<br>Other      | _        | COC Sign<br>Bottles<br>Correct   | ample Rece<br>Present/I<br>ed/Accurat<br>arrive int<br>bottles us | er<br>act:<br>ed:  | Nep Ny Ng N                |
| DW - Drinking Water<br>OT - Other   | Samples retu<br>UPSF                                 | urned via:<br>edExCo | ourier               | and the second sec | racking #           |                        |                |                             |              | la contra                         |                               | - Du               |          | VOA Zero   | If App<br>Headspace   | ollcabl            | A 11                       |
| Relinquished by : (Signature)   | ~  | Date: 2/2            | /18                  | Time: 0800   | leceived by: (Signi | ature)                 | New York       |                             | 1            | Trip B                            | lank Rec                      | 4 HeL/M            |          |  |   |                    |                            |
| Relinquished by : (Signature)   |  | Date:                |                      | Time: F  | leceived by: (Sign  | ature)                 |                | 1.                          |              | Temp                              | H12                           | *C Bottles Receiv  | 15       | If preserve  | ation require   | d by Logi          | n: Date/Time               |
| Relinquished by : (Signature)   | 1-1-1  | Date:                | See 1                | Time:  | Received for lab P  | r: (Sigr               | (anture)       | , 83                        | 34           | Date:                             | 3+8                           | Time:              | 5        | Hold:  | and a second  | A REAL             | Condition:<br>NCF / OK     |
| Document No: J1-680   | -RGL-GRI-0000  | 01-00                | 1035                 | A March  | Rev                 | vision:                | 1              |                             | 14           | 200                               | 21 2 2                        | Set States         |          | and the second s | Reiss   | ued for            | Use                        |

|  | Southern.                |                       | Billing Infe   | ormation:  | S" 2 34)            |          | 1,             |                             | 1.8        | Analysis                          | / Conta   | iner / Pre             | servative          | 1100 A       | Chain of Custo                                      | ody Page Y of          |
|--|--------------------------|-----------------------|--|--|---------------------|----------|----------------|-----------------------------|------------|-----------------------------------|---|------------------------|--------------------|--------------|---|------------------------|
| GRI - Beaverton, OR  |                          |                       | Patty N  | orgaard  |                     | Pres     | 0              | a                           | 2005       |                                   | 108   |                        | Per TEUTE          |              |   |                        |
|  |                          |                       |  | V Nimbus Aver  | nue                 | Cnk      | 13             | V                           | Res        | 123                               | V   | 19.14                  |                    |              | 1 1   | LV(                    |
| 9750 SW Nimbus Avenue  |                          |                       | The second s | on, OR 97008   |                     | -        | 1992           | 1                           | 1          |                                   | 1953  |                        | 1000               | 00.00        |   | LOC                    |
| Beaverton, OR 97008  |                          |                       |  |  |                     |          | 200            | 133                         | 1200       | 14.1                              | 125   | 100                    | 100                | 1500         | L.A.B.S   | andustory of Rentingen |
| Report to:   | Gellen I                 | 1.11 351              | Email To:  | nutevsky@gri.com   | ; mmarshall@gri     | i.ce n   | 172            | 125                         | 1303       | F                                 | -   | 1.15                   |                    |              |   |                        |
| Nora Utevsky   |                          | 6.25                  | 1158   | and the second   |                     |          |                | 192                         | 133        | N-9                               | NO  | 1.4                    |                    | 1000         | 12065 Lebanon I<br>Mount Juliet, TN                 | 37122 11 2 2 2         |
| Description: 5764-   | 1195                     |                       |  | City/State<br>Collected: CC  | DOS Bay             | 1/OR     | 250mlHDPE-HNO3 | DH                          | No.        | PAHSIMLVID PAHS 40mlAmb-NoPres-WT | Total PP Metals 6010 250mlHDPE-HNO3   |                        |                    | dia an       | Phone: 615-758<br>Phone: 800-767<br>Fax: 615-758-58 | 5859 112 30            |
| Phone: 503-641-3478  | Client Projec            | t#                    |  | Lab Project #  | 1                   | 1.5      | PE-            | P<br>B                      | (mail)     | N-Q                               | E   | 1.54                   | 6.9                | Sec.         | L# 47   | 16=4                   |
| Fax:   | 5764 - \\                | 175                   |  | GRIBOR-576   | 4                   |          | 9              | AI                          | -          | Am                                | Gm  | Ū                      |                    |              | - th  | 16.7                   |
| Collected by (print):<br>N. Utensky  | Site/Facility I          | D#                    |  | P.O. #   | -                   |          | Soml           | 100m                        | ib HCI     | 40ml                              | 10 25   | H-qm                   |                    |              | Table #<br>Acctnum: GI                              | DIDOD.                 |
| Collected by (signature):  | Rush2                    | Lab MUST Be           | Matified   | Quote #  |                     |          |                | 15                          | IAn        | Hs                                | 60  | nta                    | 36.5               |              | Template:T1   |                        |
| GAI. 1 Atta  | Same (                   |                       |  |  |                     |          | metals         | IOS                         | 40mlAmb    | PA                                | SIE   | 40                     |                    | 12.2         | Prelogin: P6  |                        |
| Immediately  | Next D                   |                       | y (Rad Only)   | Date Rest  | ilts Needed         |          |                | XN                          |            | NID I                             | Met   | S                      | 14                 | 100          | TSR: 110 - Br                                       |                        |
| Packed on Ice N Y X  | Three (                  | and the second second | ay (Rad Only)  |  |                     | No.      | s pp           | H                           | HG         | ML                                | d   | 2                      | 22.15              | 1000         | Theory and the second second second                 | 19-186                 |
| Sample ID  | Comp/Grab                | Matrix *              | Depth  | Date   | Time                | Cntrs    | FF Diss        | NWTPHDX NOSGT 100ml Amb-HCl | NWTPHGX    | AHSI                              | otal  | V8260 VOCs 40mlAmb-HCl |                    |              |   | FedEX Ground           |
| BP-121-W   | G                        | GW                    | S. Milling   | 2/1/18   | 1115                | 12       |                |                             | -          | -                                 |   | -                      | 26.7               | 1000         | *   | amiliae a tran grav)   |
| BP-121-9   |                          | 55 GW                 | 9  | 2/1/18   | 1110                | 5        | 100            |                             | 1          | 10.0                              | 10001   |                        |                    |              | ×   |                        |
| B0-177-7   | -                        | SSGW                  | 7  | 2/1/18   | 111                 |          | 1              | -                           | -          | 28.0                              | 128,000   |                        | Contraction of the |              | Section of the                                      | La La State La Tri     |
| BP-123-8   | 6                        | SGW                   | T B  | 0111   | 1145                | 5        | 2              |                             |            | -                                 | 1000  |                        | 1                  | 1000         |   |                        |
| and the second |                          |                       |  | 1110   | 1245                | 5        | 1936           | 12.4                        | 1          |                                   | 1   |                        | 205                |              |   |                        |
| BP-125-13  | G                        | SSGW                  | 13   | 2/1/18   | 1445                | 5        | E              | 1                           | 1          | 1.23                              |   | 1                      | 18                 |              | 1. 1. 1. 1. 1. 1.                                   |                        |
| BP-126-6   | G                        | SSEW                  | 6  | 41/18  | 1520                | 5        | 1              | 1                           | d'and      | 1                                 | . talk  | 112                    | 73                 | 100          |   | - Alteria (M           |
| BP-127-8   | G                        | SSGW                  | 8  | 2/1/18   | 1605                | 5        | 62.00          |                             | 124        | -16                               | 15.30   |                        | 1.5                |              | State of the second                                 | The second             |
| BP-127-13  | G                        | SGW                   | 13   | 2/1/18   | 1610                | 5        | 112            | 1                           | - Mary     | 1                                 | 1221  | 1.5                    | 1914 C             | 200          | 1 102   | C. CHERNEY CO.         |
|  |                          | GW                    | 12.030   |  |                     |          | 6415           |                             |            | 1.10                              | 161.  |                        | 110 11             |              |   | -                      |
| Maria Maria  |                          | GW                    | 223.0  | a sur la   |                     |          |                | 1.5.7                       | Server and | 1.00                              |   |                        |                    |              |   | 1000                   |
| * Matrix:  | Remarks:                 |                       |  |  | -                   |          | 12             |                             | 10000      |                                   | 110.55  | -                      |                    |              | untile Dissection of                                | 1990                   |
| SS - Soil AIR - Air F - Filter<br>GW - Groundwater B - Bioassay  | * 5                      | see                   | NOte   | 2  ON  | Page                | 1        |                |                             |            | pH                                |   | Temp                   |                    | COC Seal     | Present/Intact<br>ed/Accurate:                      | CI _NP _Y _N           |
| WW - WasteWater  | And and a second second  | and hereit of the     | 1  |  | 0                   |          | Tran 1         |                             |            | Flow                              |   | Other                  |                    | Bottles a    | arrive intact:                                      | A.M.                   |
| DW - Drinking Water<br>OT - Other  | Samples return<br>UPS Fe | rned via:<br>adEx Cou | rier   | Tra  | icking #            | 10-10    | Talle          | Sector Sector               | 1074       | TENN                              | a fill  | 61230                  | Standard in        | Sufficien    | ottles used:<br>t volume sent;                      |                        |
| Relinquished by : (Signature)  |                          | Date:                 |  | And a state of the | ceived by: (Signat  | urel     | 938 C          | 01231                       | 1          | Tele Dia                          | nk Recel  |                        | 100                | VOA Zero     | If Applical<br>Neadspace:                           | A N                    |
| Chin 1 Pm  | +                        | 1411                  |  | 0800   | center of a foiBing | aret     |                |                             |            | TTIP Dial                         | in necen  |                        | /No<br>EL/MeoH     | Freattvat    | ion Correct/Ch                                      | iecked:                |
| Relinquished by : (Signature)  | ~                        | Date:                 |  | The second se  | ceived by: (Signat  | ure)     | 12.2           | -                           |            |                                   |   | 1 71                   |                    | Unreason     | ine served the se                                   |                        |
|  |                          | 1.000                 |  |  |                     |          |                |                             | 34         | I.S                               | and the second se | -                      | 245                | in preservat | ion required by Lo                                  | gin: Date/Time         |
| Relinquished by : (Signature)  | 1.2.1.1.1                | Date:                 | T  | ime: Rei   | eived for lab by    | (Signati | uren.          | 1.1                         | 7-11       | Date:                             | 10  | Time;                  |                    | Hold:        |   | 1                      |
|  |                          | 1                     | 1.1  |  | ())                 | 1        | L              | 50                          | 39         | 2.3                               | 18  | 0                      | 145                | monu.        |   | NCP / OK               |
|  | A STATE OF STATE         | 1                     | -  |  | 10                  | 1421     | 0,             | 1                           |            | d'                                |   | The second second      | 0.0                | 14-2013      |   |                        |

Reissued for Use

| From:    | Jason Romer                                       |
|----------|---|
| Sent:    | Friday, February 02, 2018 2:48 PM                 |
| To:      | Login; Due SVOC; Due VOC                          |
| y        | Brian Ford  |
| Subject: | Incoming RUSH - GRIBOR - arriving tomorrow, 02/03 |

(T131815 and T131816) - please note we are NOT logging the Metals for these even though it's in the template and we All samples on the COC are unchecked for analysis. Please log as follows as R3 due Wednesday, 02/07 may receive the containers.

Soils - log for NWTPHDXNOSGT, NWTPHGX, SV8270PAHSIMD, V8260, TERRACORE and TS BP-102-12 FO-111-8

FO-111-8 BP-119-8 Waters - log for NWTPHDXNOSGT, NWTPHGX, PAHSIMLVID and V8260 BP-102-W

FO-111-W BP-119-W All other samples will be PLACED ON HOLD pending results of the original RUSH samples above.

COC may not be marked RUSH

Thanks, # Jason Romer

Project Manager

ESC Lab Sciences-a subsidiary of Pace Analytical 12065 Lebanon Road | Mt. Juliet, TN 37122 800.767.5859 Ext. 9713 | Direct 615.773.9713 jromer@esclabsciences.com | www.esclabsciences.com

Andy Vann



| Lo | Login #:9667603                          | Client:  | Client: GRIBOR                   | Date:2/3  | Evaluated by:Matt S                               |
|----|--|----------|----------------------------------|---|---|
| 2  | Non-Conformance (check applicable items) | heck and | blicable items)                  |   |   |
|    | Consistentia Internetive                 |          | Chain of Custody Clarification   | rification  |   |
|    | Parameter(s) past holding                | ding     | Login Clarification Needed       | eded  | If Broken Container:                              |
|    | Improper                                 | 2        | Chain of custody is incomplete   | complete  | Insufficient packing material around container    |
|    | Improper container<br>type               |          | Please specify Metals requested. | requested.  | Insufficient packing material inside<br>cooler    |
|    | Improper<br>preservation                 |          | Please specify TCLP requested.   | equested.   | Improper handling by carrier (FedEx / UPS / Couri |
|    | Incufficiant cample volume               | lime     | Received additional s            | Received additional samples not listed on coc.      | Sample was<br>frozen                              |
|    | Sample is biphasic.                      |          | Sample ids on contait<br>coc     | Sample ids on containers do not match ids on<br>coc | Container lid not intact                          |
|    | Vials received with headspace.           | adspace. | Trip Blank not received.         | ed.   | If no Chain of Custody:                           |
| ×  | Broken container                         |          | Client did not "X" analysis.     | Ilysis.   | Received by:                                      |
|    | -  |          | Chain of Custody is missing      | nissing   | Date/Time:  |
|    | Sufficient sample remains                | ins      |                                  |   | Temp./Cont. Rec./pH:                              |
| 1  |  |          |                                  |   |   |

Login Comments: 1. <u>1 of 6 vials for FO-111-W received broken</u> 2. <u>Received TB broken</u>

racking# Carrier:

| Client informed by: | Call          | Email        | ×   | Voice Mail | Date: | 02/05/18 | Time: 0900 |
|---------------------|---------------|--------------|-----|------------|-------|----------|------------|
| tials               | Client Contac | t: Nora Utev | sky |            |       | 6        |            |

# Login Instructions:

Analyze from remaining containers received intact Client informed. 1)



# ANALYTICAL REPORT

February 14, 2018



## **GRI** - Beaverton, OR

Sample Delivery Group: Samples Received: Project Number: Description:

L968449 02/03/2018 5764-1195 5764-1195

Report To:

Nora Utevsky 9750 SW Nimbus Avenue Beaverton, OR 97008

Entire Report Reviewed By: Buan Ford

Brian Ford Technical Service Representative

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

Document No: J1-680-RGL-GRI-00001-00 Revision: 1 12065 Lebanon Rd Mount Juliet. TN 37122 615-758-5858 800-767-5859

Reissued for Use www.esclabsciences.com

## TABLE OF CONTENTS

**Cp: Cover Page** 

ACCOUNT:

GRI - Beaverton, OR

1

| ¥               |  |
|-----------------|--|
| <sup>1</sup> Cp |  |
| <sup>2</sup> Tc |  |
| <sup>3</sup> Ss |  |
| <sup>4</sup> Cn |  |
| <sup>5</sup> Sr |  |

Qc

GI

Â

Sc

| op. cover r age  | · · · · · · · · · · · · · · · · · · · |
|--|---------------------------------------|
| Tc: Table of Contents  | 2                                     |
| Ss: Sample Summary   | 4                                     |
| Cn: Case Narrative   | 9                                     |
| Sr: Sample Results   | 10                                    |
| BP-102-12 L968449-01   | 10                                    |
| BP-102-W L968449-02  | 11                                    |
| FO-111-W L968449-03  | 12                                    |
| BP-119-W L968449-04  | 13                                    |
| BP-119-8 L968449-05  | 14                                    |
| BP-101-7 L968449-06  | 15                                    |
| BP-101-30 L968449-07   | 16                                    |
| BP-102-20 L968449-08   | 17                                    |
| BP-103-13 L968449-09   | 18                                    |
| BP-104-13 L968449-10   | 19                                    |
| BP-104-20 L968449-11   | 20                                    |
| BP-106-13 L968449-12   | 21                                    |
| BP-107-12 L968449-13   | 22                                    |
| BP-108-13 L968449-14   | 23                                    |
| BP-108-17 L968449-15   | 24                                    |
| BP-109-W L968449-16  | 25                                    |
| FO-110-W L968449-17  | 28                                    |
| FO-113-8 L968449-18  | 31                                    |
| FO-114-13 L968449-19   | 32                                    |
| FO-116-14 L968449-20   | 34                                    |
| FO-118-W L968449-21  | 36                                    |
| FO-118-4 L968449-22  | 38                                    |
| BP-119-17 L968449-23   | 40                                    |
| BP-119-33 L968449-24   | 42                                    |
| BP-121-W L968449-25  | 43                                    |
| BP-121-9 L968449-26  | 44                                    |
| BP-125-13 L968449-27   | 45                                    |
| BP-126-6 L968449-28  | 46                                    |
| BP-127-8 L968449-29  | 47                                    |
| Qc: Quality Control Summary  | 48                                    |
| Total Solids by Method 2540 G-2011   | 48                                    |
| Mercury by Method 7470A  | 53                                    |
| Mercury by Method 7471A  | 54                                    |
| Metals (ICP) by Method 6010B   | 55                                    |
| Metals (ICPMS) by Method 6020 Document No: 11-680-RGL-GRI-00001-00 Revision: 1 | 58<br>Poissued t                      |
| ACCOUNT: PROJECT: SDC:   | Reissued                              |

PROJECT:

5764-1195

SDG:

L968449

Reissued for Use DATE/TIME:

02/14/18 09:57

PAGE: 2 of 81

| Volatile Organic Compounds (GC/MS) by Method 8260B            | 60 |
|---|----|
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT | 70 |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | 71 |
| GI: Glossary of Terms   | 75 |
| Al: Accreditations & Locations                                | 76 |
| Sc: Sample Chain of Custody                                   | 77 |

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

\*

| Document No: J1-680-RGL-GRI-00001-00 |  |
|--------------------------------------|--|
| ACCOUNT:                             |  |
| GRI - Beaverton, OR                  |  |

SDG: L968449 Reissued for Use DATE/TIME: 02/14/18 09:57

ONE LAB. NATIONWIDE.

¥

|   | SAMPLE SU | JMMA     | RY                         | ON                                    | IE LAB. NATIONWID                    |
|---|-----------|----------|----------------------------|---------------------------------------|--------------------------------------|
| BP-102-12 L968449-01 Solid                                  |           |          | Collected by<br>N. Utevsky | Collected date/time<br>01/29/18 16:43 | Received date/time<br>02/03/18 08:45 |
| Method  | Batch     | Dilution | Preparation<br>date/time   | Analysis<br>date/time                 | Analyst                              |
| Total Solids by Method 2540 G-2011                          | WG1070464 | 1        | 02/06/18 14:30             | 02/06/18 14:43                        | JAV                                  |
| Mercury by Method 7471A                                     | WG1072718 | 1        | 02/12/18 19:37             | 02/13/18 08:40                        | ABL                                  |
| Aretals (ICP) by Method 6010B                               | WG1073100 | 1        | 02/13/18 14:48             | 02/13/18 19:51                        | ST                                   |
|   |           |          |                            |                                       |                                      |
| 3P-102-W L968449-02 GW                                      |           |          | Collected by<br>N. Utevsky | Collected date/time<br>01/30/18 10:02 | Received date/time<br>02/03/18 08:45 |
| /lethod   | Batch     | Dilution | Preparation                | Analysis                              | Analyst                              |
|   |           |          | date/time                  | date/time                             |                                      |
| Iercury by Method 7470A                                     | WG1071210 | 1        | 02/08/18 12:11             | 02/09/18 08:32                        | TRB                                  |
| letals (ICP) by Method 6010B                                | WG1071350 | 1        | 02/08/18 12:08             | 02/08/18 21:58                        | TRB                                  |
| letals (ICPMS) by Method 6020                               | WG1071019 | 1        | 02/07/18 19:22             | 02/08/18 17:43                        | LAT                                  |
|   |           |          | Collected by               | Collected date/time                   | Received date/time                   |
| FO-111-W L968449-03 GW                                      |           |          | N. Utevsky                 | 01/31/18 09:20                        | 02/03/18 08:45                       |
| Method  | Batch     | Dilution | Preparation                | Analysis                              | Analyst                              |
|   |           |          | date/time                  | date/time                             |                                      |
| Vercury by Method 7470A                                     | WG1071210 | 1        | 02/08/18 12:11             | 02/09/18 08:34                        | TRB                                  |
| Metals (ICP) by Method 6010B                                | WG1071350 | 1        | 02/08/18 12:08             | 02/08/18 22:02                        | TRB                                  |
| Aetals (ICPMS) by Method 6020                               | WG1071019 | 1        | 02/07/18 19:22             | 02/08/18 17:46                        | LAT                                  |
|   |           |          | Collected by               | Collected date/time                   | Received date/time                   |
| 3P-119-W L968449-04 GW                                      |           |          | N. Utevsky                 | 01/31/18 15:30                        | 02/03/18 08:45                       |
| Method  | Batch     | Dilution | Preparation                | Analysis                              | Analyst                              |
|   |           |          | date/time                  | date/time                             |                                      |
| lercury by Method 7470A                                     | WG1071210 | 1        | 02/08/18 12:11             | 02/09/18 08:36                        | TRB                                  |
| Actals (ICP) by Method 6010B                                | WG1071350 | 1        | 02/08/18 12:08             | 02/08/18 22:05                        | TRB                                  |
| letals (ICPMS) by Method 6020                               | WG1071019 | 1        | 02/07/18 19:22             | 02/08/18 17:50                        | LAT                                  |
|   |           |          | Collected by               | Collected date/time                   | Received date/time                   |
| 3P-119-8 L968449-05 Solid                                   |           |          | N. Utevsky                 | 01/31/18 15:55                        | 02/03/18 08:45                       |
| lethod  | Batch     | Dilution | Preparation<br>date/time   | Analysis<br>date/time                 | Analyst                              |
| otal Solids by Method 2540 G-2011                           | WG1070464 | 1        | 02/06/18 14:30             | 02/06/18 14:43                        | JAV                                  |
| lercury by Method 7471A                                     | WG1072718 | 1        | 02/12/18 19:37             | 02/13/18 08:43                        | RDS                                  |
| Ietals (ICP) by Method 6010B                                | WG1073100 | 1        | 02/13/18 14:48             | 02/13/18 20:01                        | ST                                   |
|   |           |          | Collected by               | Collected date/time                   | Received date/time                   |
| 3P-101-7 L968449-06 Solid                                   |           |          | N. Utevsky                 | 01/29/18 15:14                        | 02/03/18 08:45                       |
| Method  | Batch     | Dilution | Preparation<br>date/time   | Analysis<br>date/time                 | Analyst                              |
| otal Solids by Method 2540 G-2011                           | WG1072596 | 1        | 02/12/18 11:04             | 02/12/18 11:15                        | KDW                                  |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM | WG1071161 | 1        | 02/07/18 23:51             | 02/08/18 13:22                        | DMG                                  |
|   |           |          | Collected by               | Collected date/time                   | Received date/time                   |
| BP-101-30 L968449-07 Solid                                  |           |          | N. Utevsky                 | 01/29/18 15:39                        | 02/03/18 08:45                       |
| Method  | Batch     | Dilution | Preparation<br>date/time   | Analysis<br>date/time                 | Analyst                              |
| Fotal Solids by Method 2540 G-2011                          | WG1072596 | 1        | 02/12/18 11:04             | 02/12/18 11:15                        | KDW                                  |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM | WG1071161 | 1        | 02/07/18 23:51             | 02/08/18 13:43                        | DMG                                  |
| Document No: J1-680-RGL-GRI-00001-00                        | Revision  | n: 1     |                            | Rei                                   | ssued for Use                        |
| ACCOUNT:  | PROJECT:  |          | SDG:                       | DATE/TIME:                            | P.                                   |
| CPI Boavorton OP  | 576/ 1195 |          | 1968119                    | 02/1//18 09:57                        | 1                                    |

5764-1195

L968449

02/14/18 09:57

4 of 81

GRI - Beaverton, OR

ONE LAB. NATIONWIDE.

\*

Ср

<sup>2</sup>Tc

³Ss

⁴Cn

Sr

Qc

GI

<sup>®</sup>Al

<sup>9</sup>Sc

| · · · · · · · · · · · · · · · · · · ·   | SAMPLE SC          |               |  | 014  |   |
|---|--------------------|---------------|--|--|---|
| BP-102-20 L968449-08 Solid  |                    |               | Collected by<br>N. Utevsky                             | Collected date/time<br>01/29/18 16:36                          | Received date/time<br>02/03/18 08:45            |
| Method  | Batch              | Dilution      | Preparation  | Analysis   | Analyst   |
|   |                    |               | date/time  | date/time  |   |
| otal Solids by Method 2540 G-2011   | WG1072596          | 1             | 02/12/18 11:04   | 02/12/18 11:15   | KDW   |
| iemi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1071161          | 1             | 02/07/18 23:51   | 02/08/18 14:04   | DMG   |
|   |                    |               | Collected by   | Collected date/time  | Received date/time                              |
| 3P-103-13 L968449-09 Solid  |                    |               | N. Utevsky   | 01/30/18 08:58   | 02/03/18 08:45                                  |
| /lethod   | Batch              | Dilution      | Preparation<br>date/time                               | Analysis<br>date/time  | Analyst   |
| Fotal Solids by Method 2540 G-2011  | WG1072596          | 1             | 02/12/18 11:04   | 02/12/18 11:15   | KDW   |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1071161          | 1             | 02/07/18 23:51   | 02/08/18 14:24   | DMG   |
|   |                    |               | Collected by   | Collected date/time  | Received date/time                              |
| 3P-104-13 L968449-10 Solid  |                    |               | N. Utevsky   | 01/30/18 09:48   | 02/03/18 08:45                                  |
| Nethod  | Batch              | Dilution      | Preparation  | Analysis   | Analyst   |
|   |                    |               | date/time  | date/time  |   |
| Fotal Solids by Method 2540 G-2011  | WG1072596          | 1             | 02/12/18 11:04   | 02/12/18 11:15   | KDW   |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1071161          | 1             | 02/07/18 23:51   | 02/08/18 14:45   | DMG   |
|   |                    |               | Collected by   | Collected date/time  | Received date/time                              |
| 3P-104-20 L968449-11 Solid  |                    |               | N. Utevsky   | 01/30/18 09:48   | 02/03/18 08:45                                  |
| Aethod  | Batch              | Dilution      | Preparation  | Analysis   | Analyst   |
|   |                    |               | date/time  | date/time  |   |
| Fotal Solids by Method 2540 G-2011  | WG1072596          | 1             | 02/12/18 11:04   | 02/12/18 11:15   | KDW   |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1071161          | 1             | 02/07/18 23:51   | 02/08/18 15:06   | DMG   |
|   |                    |               | Collected by   | Collected date/time  | Received date/time                              |
| BP-106-13 L968449-12 Solid  |                    |               | N. Utevsky   | 01/30/18 11:04   | 02/03/18 08:45                                  |
| Method  | Batch              | Dilution      | Preparation  | Analysis   | Analyst   |
|   |                    |               | date/time  | date/time  |   |
| Fotal Solids by Method 2540 G-2011  | WG1072596          | 1             | 02/12/18 11:04   | 02/12/18 11:15   | KDW   |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1071161          | 1             | 02/07/18 23:51   | 02/08/18 15:27   | DMG   |
|   |                    |               | Collected by   | Collected date/time  | Received date/time                              |
| BP-107-12 L968449-13 Solid  |                    |               | N. Utevsky   | 01/30/18 11:40   | 02/03/18 08:45                                  |
| Nethod  | Batch              | Dilution      | Preparation<br>date/time                               | Analysis<br>date/time  | Analyst   |
| Fotal Solids by Method 2540 G-2011  | WG1072596          | 1             | 02/12/18 11:04   | 02/12/18 11:15   | KDW   |
|   |                    |               | 00/07/40 00 54   | 02/00/10 15.47   | DMG   |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1071161          | 1             | 02/07/18 23:51   | 02/08/18 15:47   | DIVIG   |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM   | WG1071161          | 1             | Collected by   | Collected date/time  |   |
|   | WG1071161          | 1             |  |  |   |
| BP-108-13 L968449-14 Solid  | WG1071161<br>Batch | 1<br>Dilution | Collected by<br>N. Utevsky<br>Preparation              | Collected date/time<br>01/30/18 13:09<br>Analysis              | Received date/time                              |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM<br>BP-108-13 L968449-14 Solid<br>Method<br>Total Solids by Method 2540 G-2011 |                    |               | Collected by<br>N. Utevsky                             | Collected date/time<br>01/30/18 13:09                          | Received date/time<br>02/03/18 08:45            |
| BP-108-13 L968449-14 Solid<br>Method  | Batch              | Dilution      | Collected by<br>N. Utevsky<br>Preparation<br>date/time | Collected date/time<br>01/30/18 13:09<br>Analysis<br>date/time | Received date/time<br>02/03/18 08:45<br>Analyst |

| Document No: J1-680-RGL-GRI-00001-00 | Revision  | : 1     | Reissued for   | Use     |
|--------------------------------------|-----------|---------|----------------|---------|
| ACCOUNT:                             | PROJECT:  | SDG:    | DATE/TIME:     | PAGE:   |
| GRI - Beaverton, OR                  | 5764-1195 | L968449 | 02/14/18 09:57 | 5 of 81 |

ONE LAB. NATIONWIDE.

Ср

Тс

Ss

Ċn

Sr

Qc

GI

ΆI

Sc

|   | SAMPLE SU              |          | ONE LAB. NATIONWIL               |                                       |                                      |
|---|------------------------|----------|----------------------------------|---------------------------------------|--------------------------------------|
| BP-108-17 L968449-15 Solid                                  |                        |          | Collected by<br>N. Utevsky       | Collected date/time<br>01/30/18 13:02 | Received date/time<br>02/03/18 08:45 |
| lethod  | Batch                  | Dilution | Preparation                      | Analysis                              | Analyst                              |
|   |                        |          | date/time                        | date/time                             |                                      |
| otal Solids by Method 2540 G-2011                           | WG1072598              | 1        | 02/12/18 10:51                   | 02/12/18 11:03                        | JD                                   |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1071161              | 1        | 02/07/18 23:51                   | 02/08/18 16:29                        | DMG                                  |
|   |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| 3P-109-W L968449-16 GW                                      |                        |          | N. Utevsky                       | 01/30/18 13:20                        | 02/03/18 08:45                       |
| lethod  | Batch                  | Dilution | Preparation                      | Analysis                              | Analyst                              |
| lercury by Method 7470A                                     | WG1071210              | 1        | date/time<br>02/08/18 12:11      | date/time<br>02/09/18 07:42           | TRB                                  |
|   | WG1071350              | 1        | 02/08/18 12:08                   | 02/08/18 22:15                        | TRB                                  |
| etals (ICP) by Method 6010B                                 |                        |          |                                  |                                       |                                      |
| letals (ICPMS) by Method 6020                               | WG1071568<br>WG1071702 | 1        | 02/09/18 07:49<br>02/08/18 23:49 | 02/09/18 12:17<br>02/08/18 23:49      | JPD<br>BMB                           |
| olatile Organic Compounds (GC/MS) by Method 8260B           |                        |          |                                  |                                       |                                      |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1071139              | 1        | 02/07/18 22:00                   | 02/08/18 12:52                        | DMG                                  |
|   |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| -O-110-W L968449-17 GW                                      |                        |          | N. Utevsky                       | 01/30/18 14:15                        | 02/03/18 08:45                       |
| lethod  | Batch                  | Dilution | Preparation                      | Analysis                              | Analyst                              |
|   |                        |          | date/time                        | date/time                             |                                      |
| lercury by Method 7470A                                     | WG1071210              | 1        | 02/08/18 12:11                   | 02/09/18 08:38                        | TRB                                  |
| letals (ICP) by Method 6010B                                | WG1071350              | 1        | 02/08/18 12:08                   | 02/08/18 22:18                        | TRB                                  |
| letals (ICPMS) by Method 6020                               | WG1071568              | 1        | 02/09/18 07:49                   | 02/09/18 12:33                        | JPD                                  |
| olatile Organic Compounds (GC/MS) by Method 8260B           | WG1071702              | 1        | 02/09/18 00:08                   | 02/09/18 00:08                        | BMB                                  |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1071139              | 3        | 02/07/18 22:02                   | 02/08/18 13:15                        | DMG                                  |
|   |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| -0-113-8 L968449-18 Solid                                   |                        |          | N. Utevsky                       | 01/30/18 16:03                        | 02/03/18 08:45                       |
| lethod  | Batch                  | Dilution | Preparation                      | Analysis                              | Analyst                              |
|   |                        |          | date/time                        | date/time                             |                                      |
| otal Solids by Method 2540 G-2011                           | WG1072598              | 1        | 02/12/18 10:51                   | 02/12/18 11:03                        | JD                                   |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1071161              | 1        | 02/07/18 23:51                   | 02/08/18 16:50                        | DMG                                  |
|   |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| -0-114-13 L968449-19 Solid                                  |                        |          | N. Utevsky                       | 01/30/18 16:36                        | 02/03/18 08:45                       |
| lethod  | Batch                  | Dilution | Preparation                      | Analysis                              | Analyst                              |
|   |                        |          | date/time                        | date/time                             |                                      |
| otal Solids by Method 2540 G-2011                           | WG1072598              | 1        | 02/12/18 10:51                   | 02/12/18 11:03                        | JD                                   |
| olatile Organic Compounds (GC/MS) by Method 8260B           | WG1071579              | 1        | 01/30/18 16:36                   | 02/10/18 14:26                        | ACG                                  |
| emi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM  | WG1071161              | 1        | 02/07/18 23:51                   | 02/08/18 17:11                        | DMG                                  |
|   |                        |          | Collected by                     | Collected date/time                   | Received date/time                   |
| -0-116-14 L968449-20 Solid                                  |                        |          | N. Utevsky                       | 01/31/18 09:13                        | 02/03/18 08:45                       |
| lethod  | Batch                  | Dilution | Preparation                      | Analysis                              | Analyst                              |
|   |                        |          | date/time                        | date/time                             |                                      |
| otal Solids by Method 2540 G-2011                           | WG1072601              | 1        | 02/12/18 10:00                   | 02/12/18 10:15                        | KDW                                  |
| olatile Organic Compounds (GC/MS) by Method 8260B           | WG1071579              | 1        | 01/31/18 09:13                   | 02/10/18 14:47                        | ACG                                  |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM | WG1071161              | 1        | 02/07/18 23:51                   | 02/08/18 17:31                        | DMG                                  |

 Document No: J1-680-RGL-GRI-00001-00
 Revision: 1
 Reissued for Use

 ACCOUNT:
 PROJECT:
 SDG:
 DATE/TIME:
 PAGE:

 GRI - Beaverton, OR
 5764-1195
 L968449
 02/14/18 09:57
 6 of 81

ONE LAB. NATIONWIDE.

| PO 116-W L966449-21 GW         Cilicate by<br>United Parts         Collected by<br>United Parts         Collected dardim<br>United Parts         Illicate data<br>United Parts           Method<br>Method<br>Matter Opart Computers (CMR) by Method S2DD SM         POURTS         3         G2018 E02         2009 E027         2009 E027           Semi Visite Opart Computers (CMR) by Method S2DD SM         POURTS         3         G2018 E02         2009 E027         2009 E027           FO-116-W L966449-22 Solid         Ref         Data S018 PD 400         Ref         Callerd by<br>Collected Parts         Collected Parts         Ref           FO-116-W L966449-22 Solid         Ref         Data S018 PD 400         Collected Parts         Ref           Method         Ref         Data S018 PD 400         2009 F017         Collected Parts         Adapt           Method         Ref         Data S018 PD 400         2009 F017         Collected Parts         Adapt           Method Data S016 PD 400         Colected Parts         Collected Parts         Adapt         Adapt           Method Data S016 PD 400         Colected Parts         Colected Parts         Adapt         Adapt           Method Data S016 PD 400 PD 400         Colected Parts         Colected Parts         Adapt         Adapt           Method Data S016 PD 400 PD 400         Colected Parts  |  | SAMPLE SUI  | MMAF         | ONE LAB. NATIONWIDE. |                     |                    |
|--|--|-------------|--------------|----------------------|---------------------|--------------------|
| consistence         consistence         consistence         consistence           Semi Velatile Organic Compande (ICOMS by Microse 8270-SM         W607019         3         0.00709 82200         02.0989 833         DM6           FO-118.4 L1968449-22 Solid         Bala         Dittoo         Neuroid (ICOMS by Microse 8270-5M         Calence of accostme         Review directioner           FO-118.4 L1968449-22 Solid         W007019         3         0.00709 82200         Calence of accostme         Review directioner           FO-118.4 L1968449-22 Solid         W007016         0.00728 B100         Calence of accostme         Review directioner           Method         Bala         Dittoo         Neuroid (ICOMS by Microse 8270-5M         W00776         0.02728 B100         Calence of accostme         Review directioner           BP-119-17 L968449-23 Solid         W007761         1         0.02081 B251         CAMB         Calence of accostme         Review directioner           BP-119-17 L968449-23 Solid         W007761         1         0.02081 B251         CAMB         Calence of accostme         Review directioner           BP-119-17 L968449-23 Solid         W007761         1         0.02081 B251         CAMB         Calence of accostme         Review directioner           BP-119-17 L968449-24 Solid         Baden         Ditt  | FO-118-W L968449-21 GW   |             |              | -                    |                     | -                  |
| Halle Digan: Carponen (SCM) by Method 82700-SM         WOOTNOD         1         DOWNS 2000         005858 0027         Biel           FO-118-4         L968449-22         Solid         Collected by         Collected by         Collected families         Beeded date/fine         DXG           Method         Bach         Duar         Paperater         Ambos         Amb  | Method   | Batch       | Dilution     | ·                    | -                   | Analyst            |
| Serier Valuatile Organic Companyles, 65CMR by Method 19700-55M         Weil 12783         1         0.707781 9700         0.706781 139         DMG           FO-118-41         L966849-22         Solid         No.         0.606781 0.00         0.707781 0.00  | Volatile Organic Compounds (GC/MS) by Method 8260B             | WG1071702   | 1            |                      |                     | BMB                |
| Collected by<br>N. Densky         Callected calcuma<br>US378 715         Beauted calcuma<br>US378 715         Beauted calcuma<br>US378 715           Method         Rulin         Rulin         Rulin         Rulin         Rulin         Aulysis         Aulysis           Taid Saliss by Menici 7540 5-2011         WK0720700         1         077278 700         077278 700         077278 700         077278 700         07728 703 <td></td> <td></td> <td></td> <td></td> <td></td> <td>L</td>   |  |             |              |                      |                     | L                  |
| FO-118-4         L968449-22         Solid         M Linesky         VX20B HS         62/0316 (24 S)           Method         Batch         Diator         Method         Analysis         Analy  | Schill Volutile organice compounds (Corms) by method 02700 Sim | Weller Hiss | 5            | 02/07/10 22:00       | 02/00/10 13.33      | Dinio              |
| Method         Nath         Dillator         Preparation         Accepts         Analysis           Total Sales by Method 2540 C-2011         WX00272601         0.207281 80:70         0.207281 80:7  | E0-118-4 1 968449-22 Solid                                     |             |              | -                    |                     |                    |
| Internal Solits by Method 250 G-2011         WG07218         1         G22121 9105         MDW           Method 250 G-2011         WG07218         1         G22121 9105         MDW           Method 250 G-2011         WG07218         1         G22121 9105         MDW           Method 250 G-2014         WG07218         1         G22121 9105         MDW           Method 250 G-2014         WG07216         1         G20141 9257         G20348 9250         S1           Smm Value Graphic Companets (GCMS) by Method 82700-SIM         WG07716         1         G20141 9257         G20348 9252         DAG           BP-119-17         L968449-23         Solid         WG07750         1         G20148 925         G20348 926         Amiyst           Mathod         Batch         Dildon         Meparinton         Amiyst         Amiyst         Monyst           Total Solids by Method 2500 G-2014         WG072501         G20248 9159         AGE         AGE         AGE           Smm Value Graphic Companets (GC Method WHTMCR05.05 CT         WG077161         G20248 6234         AGM         Amiyst         Amiyst           Smm Value Graphic Companets (GC MS) Wethod WHTMCR05.05 CT         WG077161         G20248 6234         AGM         AdE         Amiyst         AdCM   |  |             | <b>D H H</b> |                      |                     |                    |
| Trad. Salids by Method 254 06 2011         WCM07261         1         0.22218 10:00         0.22138 19:01         6/UW           Marcury by Mathod 7540         WSD07278         1         0.22238 19:00         0.21318 98:45         0.  | Method   | Batch       | Dilution     |                      | -                   | Analyst            |
| Mecany (CP) violated APA<br>Media (CP) violated BDBB         WEIG727B<br>WEIG77D0         1         02278/9 3.27         02378/9 20.4         Violate<br>CP         ALL           Mecany (CP) violated BDBB         WEIG77D0         1         02278/9 20.4         ST         ALL           Schi Voaltic Organic Compounds (SCDMS by Michole 82700 SM         WEIG77D0         1         0228/9 10.25         JODDER 30.4         ST         ALL           BP-119-17         L968/449-23         Solid         WEIG77D0         1         0228/9 10.25         JODDER 30.4         ST         ALL           Mediad         Rath         Blindion         Peparation         Analysis         Analysis         Analysis           Mediad         Rath         Blindion         Peparation         Analysis         Analysis           Mediad         Blindion         Peparation         Analysis         Analysis         Analysis           Method         Blindion         Peparati   | Total Solids by Mathed 25/0 C 2011                             | WC1072601   | 1            |                      |                     |                    |
| Multis (Dig thy Michael Section 2007)         Viet 0021100         1         022118 14.48         020138 12.00.4         51           Sem-Valatile Organic Compounds (ICOMS) by Michael 82700.5M         WG107101         1         0200718 22.51         020081 817.5         DMG         Image: Compounds (ICOMS) by Michael 82700.5M         Reserved attack to grant Compounds (ICOMS) by Michael 82700.5M         Reserved attack to grant Compounds (ICOMS) by Michael 82700.5M         Reserved attack to grant Compounds (ICOMS) by Michael 82608         WG107101         1         0200718 22.51         020081 80.54         Reserved attack to grant Compounds (ICOMS) by Michael 82608         WG107560         1         027218 10.60         0270218 10.65         RCM           Vietable Organic Compounds (ICOMS) by Michael 82608         WG107560         1         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.60         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         0270218 10.61         02702   | -  |             |              |                      |                     |                    |
| Semi-Volutile Organic Compounds (EC) by Method 87700-SM         WE070714         1         0.200718 0.834         0.200918 0.537         ACM           BP-119-17         L968449-23         Solid         Collected by         Collected by<   |  |             |              |                      |                     |                    |
| Semi Volatile Organic Compounds (SC/MS) by Method 82700-SM         WG107181         1         0.2007/8 22.51         0.2008/8 07.52         DMG           BP-119-17         L9668449-23         Solid         N. Ulcosky         Organization         Analysis         Analysis         Analysis           Method         Batch         Didolo         Preparation         data/time         Collected data/time         0203/8 08.55           Method         Batch         Didolo         Preparation         data/time         0203/8 08.55           Method         Batch         Didolo         Preparation         data/time         Received data/time           Mothod         Botch         000000000000000000000000000000000000  |  |             |              |                      |                     | L                  |
| BP-119-17         L968449-23         Solid         Collected thy<br>N. Ulevsky         Collected theme<br>O20339 8645         Reviewed determs<br>O20339 8645           Method         Batch         Dilation         Poptration         Analysis         Analysis         Analysis           Method         Batch         Dilation         Poptration         Analysis         Analysis         Analysis           Total Solids by Method 2540 6-2011         WG1072501         1         002139 8150         ACC           Some Volatile Organic Compounds (ECMS) by Method 82700-5M         WG1071514         1         0202918 08:24         020918 18:10         ACC           BP-119-33         L968449-24         Solid         Butch         Dutote         Poptration         Analysis         Analysis           Some Volatile Organic Compounds (ECMS) by Method 82700-5M         WG107161         1         02078 10:0         02278 10:0         02078 18:15         MCM           Some Volatile Organic Compounds (ECMS) by Method 82700-5M         WG107161         1         02078 18:25         MCM           Some Volatile Organic Compounds (ECMS) by Method 82700-5M         WG107161         1         02078 18:25         MCM           Some Volatile Organic Compounds (ECMS) by Method 82700-5M         WG107161         1         02078 18:25         MCM   |  |             |              |                      |                     |                    |
| BP-119-17         L9eS449-23         Solid         N. Uevsky         01/31/8 15:45         02/03/8 08:45           Method         Batci         Dilution         Reparation         Analysis   | Senir volatile organic compounds (octais) by method 6270D-Sim  | WOIO/IIOI   | I            | 02/07/10 23.31       | 02/00/10 17.52      | DIVIO              |
| DP-119-17         ESOCH-13-12.5 (SUN)           Method         Batch         Dilution         Peparation<br>date/mine         Analysis<br>date/mine         Analysis<br>date/mine         Analysis         Analysis           Total Solids by Method 2540 6-2011         WG1072601         1         0272/18 10.00         0272/18 10.00         X00           Sem-Volatile Organic Compounds (GCMS) by Method 82700-SIM         WG107575         1         0270/18 23.51         020018 23.51         020018 23.51         D0068           BP-119-33 L968449-24         Solid         Batch         Dilution         Proparation         Analysis         Analysis           Method         Batch         Dilution         Proparation         Analysis         Analysis           BP-119-33 L968449-24         Solid         WG107161         020078 23.51         02008 83.41         02038 08.45           Method         Batch         Dilution         Proparation         Analysis         Analysis           Sem-Volatile Organic Compounds (GCMS) by Method 82700-SIM         WG107161         02078 08.24         02078 18.15         DMG           BP-121-W         L968449-25         GW         Collected by<br>N. Usevity         Collected date/line<br>date/line         Analysis           Method         Batch         Diluidon         Prop   |  |             |              | -                    |                     |                    |
| date time         date time         date time           Total Solids by Method 2540 G 2011         WG1072501         1         0.212781 10:05         KOW           Semi-Volatile Organic Compounds (GCMS) by Method 82700-SM         WG107154         1         0.20878 18:35         0.20978 13:10         ACM           BP-119-33 L968449-24 Solid         Collected by         Collected by         Collected tabetime         0.20878 18:35         DMG           Method         Batch         Datum         Preparation         Acalysis         Acalysis           Method         Batch         Datum         Preparation         Acalysis         Acalysis           Semi-Volatile Organic Compounds (GCMS) by Method 82700-SM         WG107161         0.202178 10:00         0.21228 10:00         0.21228 10:00           Method         Batch         Datum         Preparation         Acalysis         Acalysis           Semi-Volatile Organic Compounds (GCMS) by Method 82700-SM         WG107161         0.202178 10:00         0.22218 10:00         0.220378 0:8:45           Data Solids by Method 2540 G 2011         WG107161         0.202178 10:01         MCI         0.20078 0:8:45         Acalysis           Semi Volatile Organic Compounds (GCMS) by Method 82700-SM         WG107161         0.202178 10:01         Acadysis         Acadysis  | BP-119-17 L968449-23 Solid                                     |             |              | N. ULEVSKY           | 01/31/16 15.45      | 02/03/16 06.45     |
| Volatile Organic Compounds (CCMS) by Method 82700-SM         WCI071579         1         013118 15:45         021018 15:09         ACC           Semi-Volatile Organic Compounds (CCMS) by Method 82700-SM         WCI07151         1         020918 08:31         020918 18:10         ACM           BP-119-33 L968449-24 Solid         Collected 9by         Collected 4000000000000000000000000000000000000   | Method   | Batch       | Dilution     |                      | ,                   | Analyst            |
| Semi-Volatile Organic Compounds (GC) by Method NUTPHDX-NO SGT<br>Semi-Volatile Organic Compounds (CC/MS) by Method S2700-SM         WG1071154         1         0.208/18 08:24<br>0.207/18 23:51         0.208/18 18:30         ACM<br>DMG           BP-119-33 L968449-24 Solid         Batch         Dilution         Preparation         Analysis<br>date:time         Analysis<br>d | Total Solids by Method 2540 G-2011                             | WG1072601   | 1            | 02/12/18 10:00       | 02/12/18 10:15      | KDW                |
| Semi Volatile Organic Compounds. (SCIMS) by Method 82700-SM         WG107161         1         02/07/8 2351         02/08/8 1813         DMG           BP-119-33 L968449-24 Solid         Semi Volatile Organic Compounds. (SCIMS) by Method 82700-SM         WG1072601         1         02/07/8 2051         KOW           BP-121-W L968449-25 GW         WG107161         1         02/07/8 22.50         02/08/18 19:55         DMG           BP-121-W L968449-25 GW         Collected by<br>N Utoxiky         Collected date/time<br>02/07/8 10:5         Received date/time<br>02/07/8 10:4         Received date/time<br>02/07/8 10:2         DMG           BP-121-9 L968449-26 Solid         WG1072601         1         02/07/8 10:7         02/07/8 10:2  | Volatile Organic Compounds (GC/MS) by Method 8260B             | WG1071579   | 1            | 01/31/18 15:45       | 02/10/18 15:09      | ACG                |
| BP-119-33 L968449-24 Solid       Collected by<br>N. Ulevsky       Collected by<br>0737/8 15:00       Received date/time<br>020378 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis<br>date/time       Analysis<br>date/time         Total Solids by Method 2540 G-2011       Wetf072601       02707/8 10:00       02712/8 10:15       KDW         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       Wetf07154       1       0200878 08:44       020978 13:24       ACM         BP-121-W L968449-25 GW       Collected by<br>N. Ulevsky       Collected by<br>020078 115       Collected by<br>020078 115       Collected date/time<br>020038 08:45         BP-121-9 L968449-26 Solid       Batch       Dilution       Preparation<br>date/time       Analysis<br>date/time       Analysis<br>020078 18:10       Analysis<br>020078 18:10       Analysis<br>020038 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis<br>date/time       Analysis<br>020078 18:10       Analysis<br>020078 18:10       Analysis<br>020078 18:10         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107151       1       027078 22:00       02008 18:40       Dilution<br>020038 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis<br>date/time       Analysis<br>date/time       Analysis<br>02008 18:40.2       Dilution<br>020038 08:45       D  | Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT  | WG1071154   | 1            | 02/08/18 08:34       | 02/09/18 13:10      | ACM                |
| BP-119-33       L968449-24       Solid       N. Ulevsky       01/31/8 15:00       02/3/8 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072601       02/12/18 10:15       KDW         Semi-Volatile Organic Compounds (GC) by Method 8270D-SIM       WG107161       02/10/18 23:51       02/00/18 23:51       02/00/18 13:24       ACM         BP-121-W L968449-25       GW       Collected by<br>N. Utevsky       Collected date/time       02/07/18 23:51       02/00/18 13:5       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9       L968449-26       Solid       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9       L968449-26       Solid       WG1071161       02/17/18 10:17       02/17/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       02/17/18 10:17       02/17/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS  | Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM    | WG1071161   | 1            | 02/07/18 23:51       | 02/08/18 18:13      | DMG                |
| BP-119-33       L968449-24       Solid       N. Ulevsky       01/31/8 15:00       02/3/8 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072601       02/12/18 10:15       KDW         Semi-Volatile Organic Compounds (GC) by Method 8270D-SIM       WG107161       02/10/18 23:51       02/00/18 23:51       02/00/18 13:24       ACM         BP-121-W L968449-25       GW       Collected by<br>N. Utevsky       Collected date/time       02/07/18 23:51       02/00/18 13:5       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9       L968449-26       Solid       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9       L968449-26       Solid       WG1071161       02/17/18 10:17       02/17/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       02/17/18 10:17       02/17/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS  |  |             |              |                      |                     |                    |
| BP-119-33       L968449-24       Solid       N. Ulevsky       01/31/8 15:00       02/3/8 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072601       02/12/18 10:15       KDW         Semi-Volatile Organic Compounds (GC) by Method 8270D-SIM       WG107161       02/10/18 23:51       02/00/18 23:51       02/00/18 13:24       ACM         BP-121-W L968449-25       GW       Collected by<br>N. Utevsky       Collected date/time       02/07/18 23:51       02/00/18 13:5       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9       L968449-26       Solid       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9       L968449-26       Solid       WG1071161       02/17/18 10:17       02/17/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       02/17/18 10:17       02/17/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS  |  |             |              | Collected by         | Collected date/time | Received date/time |
| Method         Batch         Dilution         Preparation<br>date/time         Analysis<br>date/time         Analysis<br>date/time           Total Solids by Method 2540 G-2011         WG1072601         1         0.27/278 10:00         0.27/278 10:15         KDW           Semi-Volatile Organic Compounds (GC) by Method 8070D-SIM         WG107161         1         0.20/0718 23:51         0.20/0878 19:15         DMG           BP-121-W L968449-25 GW         Collected by<br>N. Utewsky         Collected date/time<br>date/time         Received date/time<br>0.20/0718 11:15         Received date/time<br>0.20/0718 11:15         Received date/time<br>0.20/0718 11:15           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071139         3         0.20/0718 22:00         0.20/0878 14:02         DMG           BP-121-9 L968449-26 Solid         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis         Analysis           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis         Analysis           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG107161         0.2/12/18 10:17         0.2/12/18 10:29         KDW           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG107161         0.2/12/18 10:17         0.2/12/18 10:29         KDW           Semi V   | RP-119-33   968449-24 Solid                                    |             |              | -                    | 01/31/18 15:00      | 02/03/18 08:45     |
| Indextination         date/time         date/time           Total Solids by Method 2540 G-2011         WG1072601         1         0272/78 10:00         0272/78 10:15         KDW           Semi-Volatile Organic Compounds (GC by Method NWTPHDX-NO SGT         WG107161         1         02/08/78 08:34         02/08/78 13:24         ACM           BP-121-W L968449-25 GW         Collected by         Collected date/time         Received date/time         02/03/78 23:51         02/03/78 08:45         02/03/78 08:45           Method         Batch         Dilution         Preparation         Analystis         Analysti         02/03/78 08:45           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071139         3         02/07/78 22:00         02/08/78 14:02         DMG           BP-121-9 L968449-26 Solid         WG1071503         1         02/07/78 22:00         02/08/78 14:02         DMG           Method         Batch         Dilution         Preparation         Analysti         Analysti           Gollected date/time         Gollected date/time         Gollected date/time         02/03/78 08:45           Total Solids by Method 25:40 G-2011         WG1072603         1         02/07/78 23:51         02/03/78 08:45           BP-125-13 L968449-27 Solid         WG1072603         1         0   |  | D. I. I.    | D:1 .:       | D                    | A 1 -               |                    |
| Semi-Volatile Organic Compounds (GC) by Method NVTPHDX-NO SGT<br>Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071154<br>WG1071161         1         02/08/18 08:34<br>02/08/18 19:15         02/08/18 19:24<br>DMG         ACM           BP-121-W L968449-25 GW         Collected by<br>N. Ulevsky         Collected by<br>Q2/07/18 23:51         Collected date/time<br>02/07/18 23:51         Received date/time<br>02/07/18 23:51         Received date/time<br>02/03/18 08:45           Method         Batch         Dilution<br>date/time         Analysis<br>date/time         Analysis<br>date/time         Analysis<br>02/03/18 08:45           BP-121-9 L968449-26 Solid         WG1071139         3         02/07/18 22:00         02/08/18 14:02         DMG           BP-121-9 L968449-26 Solid         WG1072603         1         02/12/18 10:17         02/10/18 11:00         02/03/18 08:45           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SiM         WG1072603         1         02/12/18 10:17         02/12/18 10:29         KDW           BP-125-13 L968449-27 Solid         WG1072603         1         02/12/18 10:17         02/12/18 10:29         KDW           Method<  | Method   | Batch       | Dilution     | •                    | -                   | Analyst            |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071161         1         02/07/18 23:51         02/08/18 19:15         DMG           BP-121-W L968449-25 GW         Collected by<br>N. Utevsky         Collected date/time<br>02/07/18 11:15         Received date/time<br>02/07/18 11:15         Received date/time<br>02/07/18 11:15         Received date/time<br>02/07/18 11:15           Method         Batch         Dilution         Preparation<br>date/time         Analysis<br>date/time<br>date/time         Analysis<br>date/time         Analysis<br>date/time           BP-121-9 L968449-26 Solid         WG107139         3         02/07/18 22:00         02/08/18 14:02         DMG           Method         Batch         Dilution         Preparation<br>date/time         Analysis<br>date/time         Received date/time<br>02/07/18 21:00         02/08/18 14:02         DMG           Method         Batch         Dilution         Preparation<br>Analysis         Analysis         Analysis           Method         Batch         Dilution         Preparation<br>Analysis         Analysis         Analysis           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG107161         1         02/07/18 23:51         02/08/18 19:36         DMG           BP-125-13 L968449-27 Solid         WG1072603         1         02/12/18 10:17         02/12/18 10:29         KDW   | Total Solids by Method 2540 G-2011                             | WG1072601   | 1            | 02/12/18 10:00       | 02/12/18 10:15      | KDW                |
| BP-121-W       L968449-25       GW       Collected by<br>D2/07/8 11:15       Received date/time<br>D2/07/8 11:15         Method       Batch       Dilution       Preparation<br>date/time       Analysis<br>date/time       Analysis       Analysis         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9       L968449-26       Solid       Solid       Preparation<br>date/time       Analysis       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13       L968449-27       Solid       WG1072603       1       02/12/18 10:17       02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysi       Analysis         Method       Batch       Dilution       P  | Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT  | WG1071154   | 1            | 02/08/18 08:34       | 02/09/18 13:24      | ACM                |
| BP-121-W L968449-25 GW       N. Utevsky       02/01/18 11:5       02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Semi Volatile Organic Compounds (6C/MS) by Method 8270D-SIM       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9 L968449-26 Solid       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13 L968449-27 Solid       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       1       02/07/18 23:51       02/08/18 19:36       DMG   | Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM    | WG1071161   | 1            | 02/07/18 23:51       | 02/08/18 19:15      | DMG                |
| Diricitizities       Batch       Dilution       Preparation<br>date/time       Analysis<br>date/time       Analysis       Analysis         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9 L968449-26 Solid       Collected by<br>N. Utevsky       Collected date/time<br>02/03/18 08:45       Received date/time<br>02/03/18 08:45       Received date/time<br>02/03/18 08:45         Method       Batch       Dilution<br>date/time       Preparation<br>date/time       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         BP-125-13 L968449-27 Solid       WG1071161       1       02/07/18 23:51       02/08/18 19:36       DMG         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         BP-125-13 L968449-27 Solid       WG1072603       1       02/107/18 23:51       02/08/18 19:36       DMG         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/103/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071154  |  |             |              | -                    |                     |                    |
| date/time       date/time       date/time         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071139       3       02/07/18 22:00       02/08/18 14:02       DMG         BP-121-9 L968449-26 Solid       Collected by<br>N. Utevsky       Collected by<br>02/01/18 11:10       Collected date/time<br>02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13 L968449-27 Solid       WG1072603       1       02/17/18 23:51       02/08/18 19:36       Analyst         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analyst         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       <   | BP-121-W L968449-25 GW   |             |              | N. Utevsky           | 02/01/18 11:15      | 02/03/18 08:45     |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071139       3       02/07/8 22:00       02/08/18 14:02       DMG         BP-121-9 L968449-26 Solid       Collected by<br>N. Utevsky       Collected date/time<br>02/01/8 11:10       Received date/time<br>02/03/18 08:45         Method       Batch       Dilution<br>date/time       Preparation<br>date/time       Analysis       Analysi         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13 L968449-27 Solid       WG1072603       1       02/12/18 10:17       02/10/18 14:45       02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Collected date/time<br>02/07/18 14:45       02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1072603       1       02/20/18 10:17       02/19/18 10:29       KDW         Semi-Volatile Organic Compounds (GC/MS) by  | Method   | Batch       | Dilution     | •                    |                     | Analyst            |
| BP-121-9 L968449-26 Solid       Collected by<br>N. Utevsky       Collected date/time<br>02/01/18 11:10       Received date/time<br>02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1072603       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13 L968449-27 Solid       Koll       Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1072603       1       02/07/18 23:51       Collected date/time<br>02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis       Analysis         Semi-Volatile Organic Compounds (GC/MS) by Method NWTPHDX-NO SGT       WG107161       1       02/07/18 23:51       02/08/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       1       02/07/18 23:51       02/08/18 13:3   | Sami Valatila Organic Compounds (CC/MS) by Mathed 2270D SIM    | W/C1071120  | 2            |                      |                     | DMC                |
| BP-121-9 L968449-26 Solid         N. Utevsky         Q2/01/8 11:0         Q2/03/8 08:45           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis         Analysis           Total Solids by Method 2540 G-2011         WG1072603         1         02/12/18 10:17         02/12/18 10:29         KDW           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG107161         1         02/07/18 23:51         02/08/18 19:36         DMG           BP-125-13 L968449-27 Solid         Kethod         Batch         Dilution         Preparation<br>date/time         Received date/time<br>02/03/18 08:45         Analysi           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysi           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis           Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071154         1         02/03/18 08:34         02/09/18 13:38         ACM           Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071154         1         02/03/18 08:34         02/09/18 13:38         ACM   | Senir volatile Organic Compounds (GC/MS) by Method 8270D-SiM   | WG1071159   | 3            | 02/07/18 22.00       | 02/00/10 14.02      | DIVIG              |
| BP-121-9 L968449-26 Solid         N. Utevsky         Q2/01/8 11:0         Q2/03/8 08:45           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis         Analysis           Total Solids by Method 2540 G-2011         WG1072603         1         02/12/18 10:17         02/12/18 10:29         KDW           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG107161         1         02/07/18 23:51         02/08/18 19:36         DMG           BP-125-13 L968449-27 Solid         Kethod         Batch         Dilution         Preparation<br>date/time         Received date/time<br>02/03/18 08:45         Analysi           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysi           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis           Method         Batch         Dilution         Preparation<br>date/time         Analysis         Analysis           Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071154         1         02/03/18 08:34         02/09/18 13:38         ACM           Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071154         1         02/03/18 08:34         02/09/18 13:38         ACM   |  |             |              |                      |                     |                    |
| DF-12.1-3       L903449-20 (SORID       Preparation       Analysis       Analysis       Analysis         Method       Batch       Dilution       Preparation       date/time       date/time         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:36       DMG         Collected by<br>N. Utevsky       Collected date/time<br>02/01/18 14:45       Received date/time<br>02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysi         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi-Volatile Organic Compounds (GC/MS) by Method NWTPHDX-NO SGT       WG1071154       1       02/09/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/09/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/09/18 13:38       ACM         Semi-Volati  |  |             |              |                      |                     |                    |
| date/time       date/time       date/time         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG107161       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13 L968449-27 Solid       Kethod       E       Collected by<br>N. Utevsky       Collected date/time<br>02/01/18 14:45       Received date/time<br>02/03/18 08:45         Method       Batch       Dilution       Preparation<br>date/time       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/09/18 13:38       ACM         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Method       PROJECT:       PROJECT: </td <td>BP-121-9 L968449-26 Solid</td> <td></td> <td></td> <td>N. ULEVSKY</td> <td>02/01/18 11:10</td> <td>02/03/18 08:45</td>   | BP-121-9 L968449-26 Solid                                      |             |              | N. ULEVSKY           | 02/01/18 11:10      | 02/03/18 08:45     |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13 L968449-27 Solid       Collected by<br>N. Utevsky       Collected date/time<br>02/01/18 14:45       Received date/time<br>02/03/18 08:45         Method       Batch       Dilution<br>date/time       Preparation<br>date/time       Analysis<br>date/time       Analysis<br>date/time         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Document No: J1-680-RGL-GRI-00001-00       Revision: 1         ACCOUNT:       PROJECT:       SDG:       DATE/TIME:       PAGE:   | Method   | Batch       | Dilution     |                      | -                   | Analyst            |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:36       DMG         BP-125-13 L968449-27 Solid       Collected by<br>N. Utevsky       Collected date/time<br>02/01/18 14:45       Received date/time<br>02/03/18 08:45         Method       Batch       Dilution<br>date/time       Preparation<br>date/time       Analysis<br>date/time       Analysis<br>date/time         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Document No: J1-680-RGL-GRI-00001-00       Revision: 1         ACCOUNT:       PROJECT:       SDG:       DATE/TIME:       PAGE:   | Total Solids by Method 2540 G-2011                             | WG1072603   | 1            | 02/12/18 10:17       | 02/12/18 10:29      | KDW                |
| BP-125-13 L968449-27 Solid       N. Utevsky       02/01/18 14:45       02/03/18 08:45         Method       Batch       Dilution       Preparation       Analysis       Analysis         Method       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT       WG1071154       1       02/07/18 23:51       02/09/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Document No: J1-680-RGL-GRI-00001-00       Revision: 1       Revision: 1       Revision: 1       Revision: 1       Revision: 1         ACCOUNT:       PROJECT:       SDG:       DATE/TIME:       PAGE:  | Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM    | WG1071161   | 1            | 02/07/18 23:51       | 02/08/18 19:36      | DMG                |
| BP-125-13 L968449-27 Solid       N. Utevsky       02/01/18 14:45       02/03/18 08:45         Method       Batch       Dilution       Preparation       Analysis       Analysis         Method       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Document No:       J1-680-RGL-GRI-00001-00       Revision: 1       Revision: 1       Revision: 1       Revision: 1       Revision: 1       Revision: 1       PAGE:  |  |             |              |                      |                     |                    |
| BP-125-13 L968449-27 Solid       N. Utevsky       02/01/18 14:45       02/03/18 08:45         Method       Batch       Dilution       Preparation       Analysis       Analysis         Method       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Document No:       J1-680-RGL-GRI-00001-00       Revision: 1       Revision: 1       Revision: 1       Revision: 1       Revision: 1       Revision: 1       PAGE:  |  |             |              | Collected by         | Collected date/time | Received date/time |
| Indext State       District       Preparation       Analysis       Analysis       Analysis         Method       Batch       Dilution       Preparation       Analysis       Analysis       Analysis         Total Solids by Method 2540 G-2011       WG1072603       1       02/12/18 10:17       02/12/18 10:29       KDW         Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Document No: J1-680-RGL-GRI-00001-00       Revision: 1       Revision: 1       Revision: 1       Revision: 1       Revision: 1       PAGE:  | DD 12E 12 LOCO 1 10 27 Calid                                   |             |              |                      |                     |                    |
| date/time         date/time           Total Solids by Method 2540 G-2011         WG1072603         1         02/12/18 10:17         02/12/18 10:29         KDW           Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT         WG1071154         1         02/08/18 08:34         02/09/18 13:38         ACM           Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071161         1         02/07/18 23:51         02/08/18 19:56         DMG           Document No: J1-680-RGL-GRI-00001-00         Revision: 1         Revision: 1         Reissued for Use           ACCOUNT:         PROJECT:         SDG:         DATE/TIME:         PAGE:   |  |             |              | ,                    |                     |                    |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-N0 SGT       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Document No: J1-680-RGL-GRI-00001-00       Revision: 1       Revision: 1       Revision: 1       Revision: 1       PROJECT:       PROJECT:       DATE/TIME:       PAGE:  | Method   | Batch       | Dilution     |                      | -                   | Analyst            |
| Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-N0 SGT       WG1071154       1       02/08/18 08:34       02/09/18 13:38       ACM         Semi-Volatile Organic Compounds (GC/MS) by Method 8270D-SIM       WG1071161       1       02/07/18 23:51       02/08/18 19:56       DMG         Document No: J1-680-RGL-GRI-00001-00       Revision: 1       Revision: 1       Revision: 1       Revision: 1       PROJECT:       PROJECT:       DATE/TIME:       PAGE:  | Total Solids by Method 2540 G-2011                             | WG1072603   | 1            |                      |                     | KDW                |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM         WG1071161         1         02/07/18 23:51         02/08/18 19:56         DMG           Document No: J1-680-RGL-GRI-00001-00         Revision: 1         Revision: 1         Reissued for Use           ACCOUNT:         PROJECT:         SDG:         DATE/TIME:         PAGE:  |  |             |              |                      |                     |                    |
| Document No: J1-680-RGL-GRI-00001-00     Revision: 1     Reissued for Use       ACCOUNT:     PROJECT:     SDG:     DATE/TIME:     PAGE:  |  |             |              |                      |                     |                    |
|  |  | Revision:   | 1            |                      |                     | ssued for Use      |
| GRI - Beaverton, OR         5764-1195         L968449         02/14/18 09:57         7 of 81   | ACCOUNT:   | PROJECT:    |              | SDG:                 | DATE/TIME:          | PAGE:              |
|  | GRI - Beaverton, OR  | 5764-1195   |              | L968449              | 02/14/18 09:57      | 7 of 81            |

\*

Ср

<sup>2</sup>Tc

Ss

<sup>4</sup>Cn

Sr

<sup>6</sup>Qc

GI

<sup>°</sup>Al

⁰Sc

ONE LAB. NATIONWIDE.

| BP-126-6 L968449-28 Solid                                   |           |          | Collected by<br>N. Utevsky | Collected date/time<br>02/01/18 15:20 | Received date/time<br>02/03/18 08:45 |
|---|-----------|----------|----------------------------|---------------------------------------|--------------------------------------|
| Method  | Batch     | Dilution | Preparation                | Analysis                              | Analyst                              |
|   |           |          | date/time                  | date/time                             |                                      |
| Total Solids by Method 2540 G-2011                          | WG1072603 | 1        | 02/12/18 10:17             | 02/12/18 10:29                        | KDW                                  |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM | WG1071161 | 20       | 02/07/18 23:51             | 02/08/18 20:38                        | DMG                                  |
|   |           |          | Collected by               | Collected date/time                   | Received date/time                   |
| BP-127-8 L968449-29 Solid                                   |           |          | N. Utevsky                 | 02/01/18 16:05                        | 02/03/18 08:45                       |
| Method  | Batch     | Dilution | Preparation                | Analysis                              | Analyst                              |
|   |           |          | date/time                  | date/time                             |                                      |
| Total Solids by Method 2540 G-2011                          | WG1072603 | 1        | 02/12/18 10:17             | 02/12/18 10:29                        | KDW                                  |
| Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM | WG1071161 | 1        | 02/07/18 23:51             | 02/08/18 20:17                        | DMG                                  |

Revision: 1

SDG:

L968449

PAGE:

8 of 81

Тс

Ss

Ċn

Sr

Qc

GI

ΆI

Sc

## CASE NARRATIVE

\*

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

Brian Ford

Brian Ford Technical Service Representative

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

| Document No: J  | 1-680-RGL-GRI-00001-00 |
|-----------------|------------------------|
| ACCOUNT:        |                        |
| GRI - Reaverton | OR                     |

Revision: 1

#### SAMPLE RESULTS - 01 L968449

## Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     | <br>Ср          |
|--------------|--------|-----------|----------|------------------|-----------|-----------------|
| Analyte      | %      |           |          | date / time      |           | 2               |
| Total Solids | 80.3   |           | 1        | 02/06/2018 14:43 | WG1070464 | <sup>2</sup> Tc |

## Mercury by Method 7471A

| Mercury by Metho | od 7471A     |           |           |           |          |                  |           | <sup>3</sup> Ss |
|------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|-----------------|
|                  | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |                 |
| Analyte          | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           | 4               |
| Mercury          | 0.0416       | B         | 0.00349   | 0.0249    | 1        | 02/13/2018 08:40 | WG1072718 |                 |

## Metals (ICP) by Method 6010B

|           | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|-----------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte   | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Antimony  | U            |           | 0.934     | 2.49      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Arsenic   | 3.68         |           | 0.810     | 2.49      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Beryllium | 0.146        | J         | 0.0872    | 0.249     | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Cadmium   | U            |           | 0.0872    | 0.623     | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Chromium  | 11.6         |           | 0.174     | 1.25      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Copper    | 10.8         |           | 0.660     | 2.49      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| ead       | 4.61         |           | 0.237     | 0.623     | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Nickel    | 9.84         |           | 0.610     | 2.49      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Selenium  | U            |           | 0.922     | 2.49      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Silver    | U            |           | 0.349     | 1.25      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| [hallium  | U            |           | 0.810     | 2.49      | 1        | 02/13/2018 19:51 | WG1073100 |  |
| Zinc      | 26.7         |           | 0.735     | 6.23      | 1        | 02/13/2018 19:51 | WG1073100 |  |
|           |              |           |           |           |          |                  |           |  |

#### SAMPLE RESULTS - 02 L968449



### Mercury by Method 7470A

|         | Result | Qualifier   | MDL    | RDL   | Dilution | Analysis         | Batch     | <br>Ср |
|---------|--------|-------------|--------|-------|----------|------------------|-----------|--------|
| Analyte | ug/l   |             | ug/l   | ug/l  |          | date / time      |           | 2      |
| Mercury | 0.0545 | <u>J J3</u> | 0.0490 | 0.200 | 1        | 02/09/2018 08:32 | WG1071210 | Tc     |

# Metals (ICP) by Method 6010B

| Metals (ICP) by Method 6010B |        |           |       |      |          |                  |           |                |  |  |  |
|------------------------------|--------|-----------|-------|------|----------|------------------|-----------|----------------|--|--|--|
|                              | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |                |  |  |  |
| Analyte                      | ug/l   |           | ug/l  | ug/l |          | date / time      |           | 4 C            |  |  |  |
| Beryllium                    | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 21:58 | WG1071350 |                |  |  |  |
| Cadmium                      | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 21:58 | WG1071350 | 5              |  |  |  |
| Chromium                     | 36.8   |           | 1.40  | 10.0 | 1        | 02/08/2018 21:58 | WG1071350 | ٦S             |  |  |  |
| Copper                       | 19.4   |           | 5.30  | 10.0 | 1        | 02/08/2018 21:58 | WG1071350 |                |  |  |  |
| Nickel                       | 19.3   |           | 4.90  | 10.0 | 1        | 02/08/2018 21:58 | WG1071350 | <sup>6</sup> Q |  |  |  |
| Selenium                     | U      |           | 7.40  | 10.0 | 1        | 02/08/2018 21:58 | WG1071350 |                |  |  |  |
| Silver                       | U      |           | 2.80  | 5.00 | 1        | 02/08/2018 21:58 | WG1071350 | 7              |  |  |  |
| Zinc                         | 62.5   |           | 5.90  | 50.0 | 1        | 02/08/2018 21:58 | WG1071350 | Í G            |  |  |  |

# Metals (ICPMS) by Method 6020

| Metals (ICPMS) by Method 6020 |        |           |       |      |          |                  |           |  |                 |  |  |
|-------------------------------|--------|-----------|-------|------|----------|------------------|-----------|--|-----------------|--|--|
|                               | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |  |                 |  |  |
| Analyte                       | ug/l   |           | ug/l  | ug/l |          | date / time      |           |  | <sup>9</sup> Sc |  |  |
| Antimony                      | U      |           | 0.754 | 2.00 | 1        | 02/08/2018 17:43 | WG1071019 |  | 150             |  |  |
| Arsenic                       | 10.5   |           | 0.250 | 2.00 | 1        | 02/08/2018 17:43 | WG1071019 |  |                 |  |  |
| Lead                          | 10.3   |           | 0.240 | 2.00 | 1        | 02/08/2018 17:43 | WG1071019 |  |                 |  |  |
| Thallium                      | 0.372  | J         | 0.190 | 2.00 | 1        | 02/08/2018 17:43 | WG1071019 |  |                 |  |  |

### SAMPLE RESULTS - 03 L968449



### Mercury by Method 7470A

|         | Result | Qualifier   | MDL    | RDL   | Dilution | Analysis         | Batch     | <br>Cp |
|---------|--------|-------------|--------|-------|----------|------------------|-----------|--------|
| Analyte | ug/l   |             | ug/l   | ug/l  |          | date / time      |           | 2      |
| Mercury | 0.0492 | <u>J J3</u> | 0.0490 | 0.200 | 1        | 02/09/2018 08:34 | WG1071210 | Tc     |

### Metals (ICP) by Method 6010B

| Metals (ICP) by Method 6010B |        |           |       |      |          |                  |           |                 |  |  |  |
|------------------------------|--------|-----------|-------|------|----------|------------------|-----------|-----------------|--|--|--|
|                              | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |                 |  |  |  |
| Analyte                      | ug/l   |           | ug/l  | ug/l |          | date / time      |           | <sup>4</sup> Cn |  |  |  |
| Beryllium                    | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 22:02 | WG1071350 |                 |  |  |  |
| Cadmium                      | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 22:02 | WG1071350 | 5               |  |  |  |
| Chromium                     | U      |           | 1.40  | 10.0 | 1        | 02/08/2018 22:02 | WG1071350 | Sr              |  |  |  |
| Copper                       | U      |           | 5.30  | 10.0 | 1        | 02/08/2018 22:02 | WG1071350 |                 |  |  |  |
| Nickel                       | U      |           | 4.90  | 10.0 | 1        | 02/08/2018 22:02 | WG1071350 | <sup>6</sup> Qc |  |  |  |
| Selenium                     | U      |           | 7.40  | 10.0 | 1        | 02/08/2018 22:02 | WG1071350 | QC              |  |  |  |
| Silver                       | U      |           | 2.80  | 5.00 | 1        | 02/08/2018 22:02 | WG1071350 | 7               |  |  |  |
| Zinc                         | U      |           | 5.90  | 50.0 | 1        | 02/08/2018 22:02 | WG1071350 | ΄ GΙ            |  |  |  |
|                              |        |           |       |      |          |                  |           |                 |  |  |  |

# Metals (ICPMS) by Method 6020

| Metals (ICPMS) by Method 6020 |        |           |       |      |          |                  |           |     |  |  |
|-------------------------------|--------|-----------|-------|------|----------|------------------|-----------|-----|--|--|
|                               | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |     |  |  |
| Analyte                       | ug/l   |           | ug/l  | ug/l |          | date / time      |           | °Sc |  |  |
| Antimony                      | U      |           | 0.754 | 2.00 | 1        | 02/08/2018 17:46 | WG1071019 |     |  |  |
| Arsenic                       | 1.88   | J         | 0.250 | 2.00 | 1        | 02/08/2018 17:46 | WG1071019 |     |  |  |
| Lead                          | 0.827  | J         | 0.240 | 2.00 | 1        | 02/08/2018 17:46 | WG1071019 |     |  |  |
| Thallium                      | U      |           | 0.190 | 2.00 | 1        | 02/08/2018 17:46 | WG1071019 |     |  |  |

| Document No: J1-680-RGL-GRI-00001-00 | Revision: | 1       |
|--------------------------------------|-----------|---------|
| ACCOUNT:                             | PROJECT:  | SDG:    |
| GRI - Beaverton, OR                  | 5764-1195 | L968449 |

PAGE:

12 of 81

### SAMPLE RESULTS - 04 Collected date/time: 01/31/18 15:30



### Mercury by Method 7470A

|         | Result | Qualifier | MDL    | RDL   | Dilution | Analysis         | Batch     | Ср |
|---------|--------|-----------|--------|-------|----------|------------------|-----------|----|
| Analyte | ug/l   |           | ug/l   | ug/l  |          | date / time      |           | 2  |
| Mercury | 0.0542 | J J3      | 0.0490 | 0.200 | 1        | 02/09/2018 08:36 | WG1071210 | Tc |

L968449

# Metals (ICP) by Method 6010B

|          | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |
|----------|--------|-----------|-------|------|----------|------------------|-----------|
| nalyte   | ug/l   |           | ug/l  | ug/l |          | date / time      |           |
| eryllium | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 22:05 | WG1071350 |
| admium   | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 22:05 | WG1071350 |
| hromium  | 3.13   | J         | 1.40  | 10.0 | 1        | 02/08/2018 22:05 | WG1071350 |
| opper    | U      |           | 5.30  | 10.0 | 1        | 02/08/2018 22:05 | WG1071350 |
| lickel   | U      |           | 4.90  | 10.0 | 1        | 02/08/2018 22:05 | WG1071350 |
| elenium  | U      |           | 7.40  | 10.0 | 1        | 02/08/2018 22:05 | WG1071350 |
| ilver    | U      |           | 2.80  | 5.00 | 1        | 02/08/2018 22:05 | WG1071350 |
| nc       | U      |           | 5.90  | 50.0 | 1        | 02/08/2018 22:05 | WG1071350 |

# Metals (ICPMS) by Method 6020

| Metals (ICPMS) by Method 6020 |        |           |       |      |          |                  |           |     |  |  |
|-------------------------------|--------|-----------|-------|------|----------|------------------|-----------|-----|--|--|
|                               | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |     |  |  |
| Analyte                       | ug/l   |           | ug/l  | ug/l |          | date / time      |           | °Sc |  |  |
| Antimony                      | U      |           | 0.754 | 2.00 | 1        | 02/08/2018 17:50 | WG1071019 | 50  |  |  |
| Arsenic                       | 4.74   |           | 0.250 | 2.00 | 1        | 02/08/2018 17:50 | WG1071019 |     |  |  |
| Lead                          | 0.716  | J         | 0.240 | 2.00 | 1        | 02/08/2018 17:50 | WG1071019 |     |  |  |
| Thallium                      | U      |           | 0.190 | 2.00 | 1        | 02/08/2018 17:50 | WG1071019 |     |  |  |

### SAMPLE RESULTS - 05 L968449

# Total Solids by Method 2540 G-2011

|              | - |        |           |          |                  |           |    | <u>к</u> Г. |
|--------------|---|--------|-----------|----------|------------------|-----------|----|-------------|
|              |   | Result | Qualifier | Dilution | Analysis         | Batch     |    | 1           |
| Analyte      |   | %      |           |          | date / time      |           | 2  | 5           |
| Total Solids |   | 89.6   |           | 1        | 02/06/2018 14:43 | WG1070464 | Tc |             |

### Mercury by Method 7471A

|         | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |        |
|---------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--------|
| Analyte | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           | $^{4}$ |
| Mercury | 0.0119       | ВJ        | 0.00313   | 0.0223    | 1        | 02/13/2018 08:43 | WG1072718 | 1      |

# Metals (ICP) by Method 6010B

|                   | Result       | Quaimer    | Dilution Analy | 515          | Daten    |                  |           |  |
|-------------------|--------------|------------|----------------|--------------|----------|------------------|-----------|--|
| Analyte           | %            |            | date /         | ' time       |          |                  |           |  |
| Total Solids      | 89.6         |            | 1 02/06        | 5/2018 14:43 | WG10704  | 464              |           |  |
| Mercury by Meth   | od 7471A     |            |                |              |          |                  |           |  |
|                   | Result (dry) | Qualifier  | MDL (dry)      | RDL (dry)    | Dilution | Analysis         | Batch     |  |
| Analyte           | mg/kg        |            | mg/kg          | mg/kg        |          | date / time      |           |  |
| Mercury           | 0.0119       | <u>B J</u> | 0.00313        | 0.0223       | 1        | 02/13/2018 08:43 | WG1072718 |  |
| Metals (ICP) by N | 1ethod 6010B |            |                |              |          |                  |           |  |
|                   | Result (dry) | Qualifier  | MDL (dry)      | RDL (dry)    | Dilution | Analysis         | Batch     |  |
| Analyte           | mg/kg        |            | mg/kg          | mg/kg        |          | date / time      |           |  |
| Antimony          | U            |            | 0.837          | 2.23         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Arsenic           | 2.86         |            | 0.726          | 2.23         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Beryllium         | 0.105        | J          | 0.0782         | 0.223        | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Cadmium           | U            |            | 0.0782         | 0.558        | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Chromium          | 6.28         |            | 0.156          | 1.12         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Copper            | 2.22         | J          | 0.592          | 2.23         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Lead              | 2.42         |            | 0.212          | 0.558        | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Nickel            | 6.76         |            | 0.547          | 2.23         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Selenium          | U            |            | 0.826          | 2.23         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Silver            | U            |            | 0.313          | 1.12         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Thallium          | U            |            | 0.726          | 2.23         | 1        | 02/13/2018 20:01 | WG1073100 |  |
| Zinc              | 11.4         |            | 0.659          | 5.58         | 1        | 02/13/2018 20:01 | WG1073100 |  |
|                   |              |            |                |              |          |                  |           |  |

# Collected date/time: 01/29/18 15:14

### SAMPLE RESULTS - 06 L968449



Τс

Ss

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 56.6   | <u>13</u> | 1        | 02/12/2018 11:15 | WG1072596 |

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

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | 0.00130      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Acenaphthene           | 0.00496      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Acenaphthylene         | 0.00951      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Benzo(a)anthracene     | 0.00116      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Chrysene               | U            |           | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Fluoranthene           | 0.00216      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Fluorene               | 0.00120      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Naphthalene            | 0.0785       |           | 0.00354   | 0.0354    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Phenanthrene           | 0.00455      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| Pyrene                 | 0.00179      | J         | 0.00106   | 0.0106    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| 1-Methylnaphthalene    | 0.0160       | J         | 0.00354   | 0.0354    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| 2-Methylnaphthalene    | 0.0128       | J         | 0.00354   | 0.0354    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00354   | 0.0354    | 1        | 02/08/2018 13:22 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 72.4         |           |           | 14.0-149  |          | 02/08/2018 13:22 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 75.3         |           |           | 34.0-125  |          | 02/08/2018 13:22 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 56.9         |           |           | 23.0-120  |          | 02/08/2018 13:22 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

PAGE: 15 of 81

### SAMPLE RESULTS - 07 L968449

Тс

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 84.2   |           | 1        | 02/12/2018 11:15 | WG1072596 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Acenaphthene           | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Acenaphthylene         | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Chrysene               | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Fluoranthene           | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Fluorene               | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Naphthalene            | U            |           | 0.00237   | 0.0237    | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Phenanthrene           | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| Pyrene                 | U            |           | 0.000712  | 0.00712   | 1        | 02/08/2018 13:43 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.00237   | 0.0237    | 1        | 02/08/2018 13:43 | WG1071161 |  |
| 2-Methylnaphthalene    | U            |           | 0.00237   | 0.0237    | 1        | 02/08/2018 13:43 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00237   | 0.0237    | 1        | 02/08/2018 13:43 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 125          |           |           | 14.0-149  |          | 02/08/2018 13:43 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 95.6         |           |           | 34.0-125  |          | 02/08/2018 13:43 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 86.5         |           |           | 23.0-120  |          | 02/08/2018 13:43 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

| Document No: J1-680-RGL-GRI-00001-00 |
|--------------------------------------|
| ACCOUNT:                             |
| GRI - Beaverton, OR                  |

### SAMPLE RESULTS - 08 L968449

Τс

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 82.3   |           | 1        | 02/12/2018 11:15 | WG1072596 |

|                       | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|-----------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte               | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene            | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Acenaphthene          | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Acenaphthylene        | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Benzo(a)anthracene    | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Benzo(a)pyrene        | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Benzo(b)fluoranthene  | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Benzo(g,h,i)perylene  | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Benzo(k)fluoranthene  | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Chrysene              | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Dibenz(a,h)anthracene | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Fluoranthene          | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Fluorene              | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| ndeno(1,2,3-cd)pyrene | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Naphthalene           | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Phenanthrene          | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| Pyrene                | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 14:04 | WG1071161 |  |
| I-Methylnaphthalene   | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 14:04 | WG1071161 |  |
| 2-Methylnaphthalene   | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 14:04 | WG1071161 |  |
| 2-Chloronaphthalene   | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 14:04 | WG1071161 |  |
| (S) Nitrobenzene-d5   | 119          |           |           | 14.0-149  |          | 02/08/2018 14:04 | WG1071161 |  |
| (S) 2-Fluorobiphenyl  | 93.3         |           |           | 34.0-125  |          | 02/08/2018 14:04 | WG1071161 |  |
| (S) p-Terphenyl-d14   | 86.1         |           |           | 23.0-120  |          | 02/08/2018 14:04 | WG1071161 |  |

\*

Τс

Ss

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 74.8   |           | 1        | 02/12/2018 11:15 | WG1072596 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | 0.00149      | J         | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Acenaphthene           | 0.00829      |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Acenaphthylene         | 0.0135       |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Benzo(g,h,i)perylene   | 0.00127      | J         | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Chrysene               | U            |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Fluoranthene           | 0.00277      | J         | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Fluorene               | 0.00258      | J         | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Naphthalene            | 0.106        |           | 0.00267   | 0.0267    | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Phenanthrene           | 0.00819      |           | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| Pyrene                 | 0.00266      | J         | 0.000802  | 0.00802   | 1        | 02/08/2018 14:24 | WG1071161 |  |
| 1-Methylnaphthalene    | 0.00950      | J         | 0.00267   | 0.0267    | 1        | 02/08/2018 14:24 | WG1071161 |  |
| 2-Methylnaphthalene    | 0.0121       | J         | 0.00267   | 0.0267    | 1        | 02/08/2018 14:24 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00267   | 0.0267    | 1        | 02/08/2018 14:24 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 81.7         |           |           | 14.0-149  |          | 02/08/2018 14:24 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 65.5         |           |           | 34.0-125  |          | 02/08/2018 14:24 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 50.6         |           |           | 23.0-120  |          | 02/08/2018 14:24 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

\*

Τс

Ss

### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 23.3   |           | 1        | 02/12/2018 11:15 | WG1072596 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Acenaphthene           | 0.00542      | J         | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Acenaphthylene         | 0.0206       | J         | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Chrysene               | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Fluoranthene           | 0.00442      | J         | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Fluorene               | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Naphthalene            | 0.199        |           | 0.00859   | 0.0859    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Phenanthrene           | 0.00907      | J         | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| Pyrene                 | 0.00374      | J         | 0.00258   | 0.0258    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.00859   | 0.0859    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| 2-Methylnaphthalene    | U            |           | 0.00859   | 0.0859    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00859   | 0.0859    | 1        | 02/08/2018 14:45 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 85.4         |           |           | 14.0-149  |          | 02/08/2018 14:45 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 61.8         |           |           | 34.0-125  |          | 02/08/2018 14:45 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 48.9         |           |           | 23.0-120  |          | 02/08/2018 14:45 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

#### SAMPLE RESULTS - 11 L968449

Τс

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 82.3   |           | 1        | 02/12/2018 11:15 | WG1072596 |

|                       | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|-----------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte               | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene            | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Acenaphthene          | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Acenaphthylene        | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Benzo(a)anthracene    | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Benzo(a)pyrene        | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Benzo(b)fluoranthene  | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Benzo(g,h,i)perylene  | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Benzo(k)fluoranthene  | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Chrysene              | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Dibenz(a,h)anthracene | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| luoranthene           | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| luorene               | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| ndeno(1,2,3-cd)pyrene | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Naphthalene           | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Phenanthrene          | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| Pyrene                | U            |           | 0.000729  | 0.00729   | 1        | 02/08/2018 15:06 | WG1071161 |  |
| -Methylnaphthalene    | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 15:06 | WG1071161 |  |
| 2-Methylnaphthalene   | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 15:06 | WG1071161 |  |
| 2-Chloronaphthalene   | U            |           | 0.00243   | 0.0243    | 1        | 02/08/2018 15:06 | WG1071161 |  |
| (S) Nitrobenzene-d5   | 119          |           |           | 14.0-149  |          | 02/08/2018 15:06 | WG1071161 |  |
| (S) 2-Fluorobiphenyl  | 89.4         |           |           | 34.0-125  |          | 02/08/2018 15:06 | WG1071161 |  |
| (S) p-Terphenyl-d14   | 81.3         |           |           | 23.0-120  |          | 02/08/2018 15:06 | WG1071161 |  |

\*

Τс

Ss

### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 80.5   |           | 1        | 02/12/2018 11:15 | WG1072596 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Acenaphthene           | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Acenaphthylene         | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Chrysene               | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Fluoranthene           | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Fluorene               | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Naphthalene            | U            |           | 0.00248   | 0.0248    | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Phenanthrene           | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| Pyrene                 | U            |           | 0.000745  | 0.00745   | 1        | 02/08/2018 15:27 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.00248   | 0.0248    | 1        | 02/08/2018 15:27 | WG1071161 |  |
| 2-Methylnaphthalene    | U            |           | 0.00248   | 0.0248    | 1        | 02/08/2018 15:27 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00248   | 0.0248    | 1        | 02/08/2018 15:27 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 121          |           |           | 14.0-149  |          | 02/08/2018 15:27 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 89.6         |           |           | 34.0-125  |          | 02/08/2018 15:27 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 63.2         |           |           | 23.0-120  |          | 02/08/2018 15:27 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

### SAMPLE RESULTS - 13 L968449

Тс

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 83.4   |           | 1        | 02/12/2018 11:15 | WG1072596 |

|                       | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|-----------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte               | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene            | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Acenaphthene          | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Acenaphthylene        | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Benzo(a)anthracene    | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Benzo(a)pyrene        | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Benzo(b)fluoranthene  | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Benzo(g,h,i)perylene  | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Benzo(k)fluoranthene  | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Chrysene              | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Dibenz(a,h)anthracene | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| luoranthene           | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| luorene               | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| ndeno(1,2,3-cd)pyrene | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Naphthalene           | U            |           | 0.00240   | 0.0240    | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Phenanthrene          | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| Pyrene                | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 15:47 | WG1071161 |  |
| -Methylnaphthalene    | U            |           | 0.00240   | 0.0240    | 1        | 02/08/2018 15:47 | WG1071161 |  |
| 2-Methylnaphthalene   | U            |           | 0.00240   | 0.0240    | 1        | 02/08/2018 15:47 | WG1071161 |  |
| 2-Chloronaphthalene   | U            |           | 0.00240   | 0.0240    | 1        | 02/08/2018 15:47 | WG1071161 |  |
| (S) Nitrobenzene-d5   | 123          |           |           | 14.0-149  |          | 02/08/2018 15:47 | WG1071161 |  |
| (S) 2-Fluorobiphenyl  | 94.7         |           |           | 34.0-125  |          | 02/08/2018 15:47 | WG1071161 |  |
| (S) p-Terphenyl-d14   | 89.9         |           |           | 23.0-120  |          | 02/08/2018 15:47 | WG1071161 |  |

| Document No:   | J1-680-RGL-GRI-00001-00 |
|----------------|-------------------------|
| ACCOUNT        | Γ:                      |
| GRI - Beaverto | n, OR                   |

#### SAMPLE RESULTS - 14 L968449

Τс

Ss

Cn

### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 26.6   |           | 1        | 02/12/2018 11:03 | WG1072598 |

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | 85.1         |           | 9.93      | 30.1      | 2        | 02/09/2018 14:05 | WG1071154 |
| Residual Range Organics (RRO) | 389          |           | 24.8      | 75.3      | 2        | 02/09/2018 14:05 | WG1071154 |
| (S) o-Terphenyl               | 51.8         |           |           | 18.0-148  |          | 02/09/2018 14:05 | WG1071154 |

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

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | 0.00391      | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Acenaphthene           | 0.00718      | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Acenaphthylene         | 0.0134       | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Benzo(a)anthracene     | 0.00254      | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Chrysene               | U            |           | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Fluoranthene           | 0.00467      | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Fluorene               | 0.00271      | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Naphthalene            | 0.106        |           | 0.00753   | 0.0753    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Phenanthrene           | 0.0120       | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| Pyrene                 | 0.00442      | J         | 0.00226   | 0.0226    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.00753   | 0.0753    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| 2-Methylnaphthalene    | 0.00785      | J         | 0.00753   | 0.0753    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00753   | 0.0753    | 1        | 02/08/2018 16:08 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 70.2         |           |           | 14.0-149  |          | 02/08/2018 16:08 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 52.5         |           |           | 34.0-125  |          | 02/08/2018 16:08 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 49.4         |           |           | 23.0-120  |          | 02/08/2018 16:08 | WG1071161 |  |

SDG: L968449

\*

Тс

Ss

### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 83.7   |           | 1        | 02/12/2018 11:03 | WG1072598 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Acenaphthene           | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Acenaphthylene         | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Chrysene               | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Fluoranthene           | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Fluorene               | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Naphthalene            | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Phenanthrene           | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| Pyrene                 | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 16:29 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 16:29 | WG1071161 |  |
| 2-Methylnaphthalene    | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 16:29 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 16:29 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 119          |           |           | 14.0-149  |          | 02/08/2018 16:29 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 94.9         |           |           | 34.0-125  |          | 02/08/2018 16:29 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 87.3         |           |           | 23.0-120  |          | 02/08/2018 16:29 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

#### SAMPLE RESULTS - 16 L968449



### Mercury by Method 7470A

|         | Result | Qualifier | MDL    | RDL   | Dilution | Analysis         | Batch     | Ср  |
|---------|--------|-----------|--------|-------|----------|------------------|-----------|-----|
| Analyte | ug/l   |           | ug/l   | ug/l  |          | date / time      |           | 2   |
| Mercury | U      | <u>J3</u> | 0.0490 | 0.200 | 1        | 02/09/2018 07:42 | WG1071210 | ¯Тс |

### Metals (ICP) by Method 6010B

|           | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |  |
|-----------|--------|-----------|-------|------|----------|------------------|-----------|--|
| Analyte   | ug/l   |           | ug/l  | ug/l |          | date / time      |           |  |
| Beryllium | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 22:15 | WG1071350 |  |
| Cadmium   | U      |           | 0.700 | 2.00 | 1        | 02/08/2018 22:15 | WG1071350 |  |
| Chromium  | 5.00   | J         | 1.40  | 10.0 | 1        | 02/08/2018 22:15 | WG1071350 |  |
| Copper    | U      |           | 5.30  | 10.0 | 1        | 02/08/2018 22:15 | WG1071350 |  |
| Nickel    | U      |           | 4.90  | 10.0 | 1        | 02/08/2018 22:15 | WG1071350 |  |
| Selenium  | U      |           | 7.40  | 10.0 | 1        | 02/08/2018 22:15 | WG1071350 |  |
| Silver    | U      |           | 2.80  | 5.00 | 1        | 02/08/2018 22:15 | WG1071350 |  |
| Zinc      | 7.90   | Ţ         | 5.90  | 50.0 | 1        | 02/08/2018 22:15 | WG1071350 |  |

### Metals (ICPMS) by Method 6020

GRI - Beaverton, OR

| Metals (ICPM | S) by Method 6 | 5020       |       |      |          |                  |           |  |
|--------------|----------------|------------|-------|------|----------|------------------|-----------|--|
|              | Result         | Qualifier  | MDL   | RDL  | Dilution | Analysis         | Batch     |  |
| Analyte      | ug/l           |            | ug/l  | ug/l |          | date / time      |           |  |
| Antimony     | 0.828          | J          | 0.754 | 2.00 | 1        | 02/09/2018 12:17 | WG1071568 |  |
| Arsenic      | 3.01           |            | 0.250 | 2.00 | 1        | 02/09/2018 12:17 | WG1071568 |  |
| Lead         | 1.84           | <u>B J</u> | 0.240 | 2.00 | 1        | 02/09/2018 12:17 | WG1071568 |  |
| Thallium     | 0.280          | <u>B J</u> | 0.190 | 2.00 | 1        | 02/09/2018 12:17 | WG1071568 |  |

# Volatile Organic Compounds (GC/MS) by Method 8260B

|                             | Result     | Qualifier      | MDL   | RDL      | Dilution | Analysis         | Batch            |    |
|-----------------------------|------------|----------------|-------|----------|----------|------------------|------------------|----|
| Analyte                     | ug/l       |                | ug/l  | ug/l     |          | date / time      |                  |    |
| Acetone                     | U          |                | 10.0  | 50.0     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Acrolein                    | U          | <u>J4</u>      | 8.87  | 50.0     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Acrylonitrile               | U          |                | 1.87  | 10.0     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Benzene                     | U          |                | 0.331 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Bromobenzene                | U          |                | 0.352 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Bromodichloromethane        | U          |                | 0.380 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Bromoform                   | U          |                | 0.469 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Bromomethane                | U          |                | 0.866 | 5.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| n-Butylbenzene              | U          |                | 0.361 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| sec-Butylbenzene            | U          |                | 0.365 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| tert-Butylbenzene           | U          |                | 0.399 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Carbon tetrachloride        | U          |                | 0.379 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Chlorobenzene               | U          |                | 0.348 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Chlorodibromomethane        | U          |                | 0.327 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Chloroethane                | U          |                | 0.453 | 5.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Chloroform                  | U          |                | 0.324 | 5.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Chloromethane               | U          |                | 0.276 | 2.50     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 2-Chlorotoluene             | U          |                | 0.375 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 4-Chlorotoluene             | U          |                | 0.351 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,2-Dibromo-3-Chloropropane | U          |                | 1.33  | 5.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,2-Dibromoethane           | U          |                | 0.381 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Dibromomethane              | U          |                | 0.346 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,2-Dichlorobenzene         | U          |                | 0.349 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,3-Dichlorobenzene         | U          |                | 0.220 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,4-Dichlorobenzene         | U          |                | 0.274 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Dichlorodifluoromethane     | U          |                | 0.551 | 5.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,1-Dichloroethane          | U          |                | 0.259 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,2-Dichloroethane          | U          |                | 0.361 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| 1,1-Dichloroethene          | U          |                | 0.398 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702        |    |
| Document                    | No: 11-680 | )-RGL-GRI-0000 | 1-00  | Rev      | ision: 1 |                  | Reissued for Use |    |
| ACCO                        | -          |                |       | PROJECT: |          | SDG:             | DATE/TIME:       | PA |

5764-1195

L968449

02/14/18 09:57

25 of 81

### SAMPLE RESULTS - 16 L968449



# Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result | Qualifier | MDL   | RDL      | Dilution | Analysis         | Batch     | (   |
|--------------------------------|--------|-----------|-------|----------|----------|------------------|-----------|-----|
| Analyte                        | ug/l   |           | ug/l  | ug/l     |          | date / time      |           |     |
| cis-1,2-Dichloroethene         | U      |           | 0.260 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | 2   |
| trans-1,2-Dichloroethene       | U      |           | 0.396 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,2-Dichloropropane            | U      |           | 0.306 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | 3   |
| 1,1-Dichloropropene            | U      |           | 0.352 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,3-Dichloropropane            | U      |           | 0.366 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | L   |
| cis-1,3-Dichloropropene        | U      |           | 0.418 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | 4   |
| trans-1,3-Dichloropropene      | U      |           | 0.419 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 2,2-Dichloropropane            | U      |           | 0.321 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | 5   |
| Di-isopropyl ether             | U      |           | 0.320 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Ethylbenzene                   | U      |           | 0.384 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Hexachloro-1,3-butadiene       | U      |           | 0.256 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | 6   |
| lsopropylbenzene               | U      |           | 0.326 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| p-Isopropyltoluene             | U      |           | 0.350 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | 7   |
| 2-Butanone (MEK)               | U      |           | 3.93  | 10.0     | 1        | 02/08/2018 23:49 | WG1071702 | ľ ( |
| Methylene Chloride             | U      |           | 1.00  | 5.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 4-Methyl-2-pentanone (MIBK)    | U      |           | 2.14  | 10.0     | 1        | 02/08/2018 23:49 | WG1071702 | 8   |
| Methyl tert-butyl ether        | U      |           | 0.367 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | , í |
| Naphthalene                    | U      |           | 1.00  | 5.00     | 1        | 02/08/2018 23:49 | WG1071702 | 9   |
| n-Propylbenzene                | U      |           | 0.349 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Styrene                        | U      |           | 0.307 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 | L   |
| 1,1,1,2-Tetrachloroethane      | U      |           | 0.385 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,1,2,2-Tetrachloroethane      | U      |           | 0.130 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,1,2-Trichlorotrifluoroethane | U      |           | 0.303 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Tetrachloroethene              | U      |           | 0.372 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Toluene                        | U      |           | 0.412 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,2,3-Trichlorobenzene         | U      |           | 0.230 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,2,4-Trichlorobenzene         | U      |           | 0.355 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| I,1,1-Trichloroethane          | U      |           | 0.319 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,1,2-Trichloroethane          | U      |           | 0.383 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Trichloroethene                | U      |           | 0.398 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Trichlorofluoromethane         | U      |           | 1.20  | 5.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,2,3-Trichloropropane         | U      |           | 0.807 | 2.50     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,2,4-Trimethylbenzene         | U      |           | 0.373 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,2,3-Trimethylbenzene         | U      |           | 0.321 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| 1,3,5-Trimethylbenzene         | U      |           | 0.387 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Vinyl chloride                 | U      |           | 0.259 | 1.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| Xylenes, Total                 | U      |           | 1.06  | 3.00     | 1        | 02/08/2018 23:49 | WG1071702 |     |
| (S) Toluene-d8                 | 106    |           |       | 80.0-120 |          | 02/08/2018 23:49 | WG1071702 |     |
| (S) Dibromofluoromethane       | 84.3   |           |       | 76.0-123 |          | 02/08/2018 23:49 | WG1071702 |     |
| (S) 4-Bromofluorobenzene       | 94.0   |           |       | 80.0-120 |          | 02/08/2018 23:49 | WG1071702 |     |

|                       | Result         | Qualifier     | MDL     | RDL       | Dilution | Analysis         | Batch          |         |
|-----------------------|----------------|---------------|---------|-----------|----------|------------------|----------------|---------|
| Analyte               | ug/l           |               | ug/l    | ug/l      |          | date / time      |                |         |
| Anthracene            | U              | <u>T8</u>     | 0.0140  | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Acenaphthene          | U              | <u>T8</u>     | 0.0100  | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Acenaphthylene        | U              | <u>T8</u>     | 0.0120  | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Benzo(a)anthracene    | U              | <u>T8</u>     | 0.00410 | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Benzo(a)pyrene        | U              | <u>T8</u>     | 0.0116  | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Benzo(b)fluoranthene  | 0.00535        | <u>J T8</u>   | 0.00212 | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Benzo(g,h,i)perylene  | 0.00313        | <u>J T8</u>   | 0.00227 | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Benzo(k)fluoranthene  | U              | <u>T8</u>     | 0.0136  | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Chrysene              | U              | <u>T8</u>     | 0.0108  | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Dibenz(a,h)anthracene | U              | <u>T8</u>     | 0.00396 | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Fluoranthene          | U              | <u>T8</u>     | 0.0157  | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Fluorene              | U              | <u>T8</u>     | 0.00850 | 0.0500    | 1        | 02/08/2018 12:52 | WG1071139      |         |
| Docume                | ent No: J1-680 | -RGL-GRI-0000 | 1-00    | Rev       | ision: 1 |                  | Reissued for   | Use     |
| AC                    | CCOUNT:        |               |         | PROJECT:  |          | SDG:             | DATE/TIME:     | PAGE    |
| GRI - E               | Beaverton, OR  |               |         | 5764-1195 |          | L968449          | 02/14/18 09:57 | 26 of 8 |

×

Qc

Gl

Â

Sc

|                        | Result | Qualifier | MDL     | RDL      | Dilution | Analysis         | Batch            |  |
|------------------------|--------|-----------|---------|----------|----------|------------------|------------------|--|
| Analyte                | ug/l   |           | ug/l    | ug/l     |          | date / time      |                  |  |
| Indeno(1,2,3-cd)pyrene | U      | <u>T8</u> | 0.0148  | 0.0500   | 1        | 02/08/2018 12:52 | WG1071139        |  |
| Naphthalene            | U      | <u>T8</u> | 0.0198  | 0.250    | 1        | 02/08/2018 12:52 | <u>WG1071139</u> |  |
| Phenanthrene           | U      | <u>T8</u> | 0.00820 | 0.0500   | 1        | 02/08/2018 12:52 | WG1071139        |  |
| Pyrene                 | U      | <u>T8</u> | 0.0117  | 0.0500   | 1        | 02/08/2018 12:52 | WG1071139        |  |
| 1-Methylnaphthalene    | U      | <u>T8</u> | 0.00821 | 0.250    | 1        | 02/08/2018 12:52 | WG1071139        |  |
| 2-Methylnaphthalene    | U      | <u>T8</u> | 0.00902 | 0.250    | 1        | 02/08/2018 12:52 | WG1071139        |  |
| 2-Chloronaphthalene    | U      | <u>T8</u> | 0.00647 | 0.250    | 1        | 02/08/2018 12:52 | WG1071139        |  |
| (S) Nitrobenzene-d5    | 138    |           |         | 31.0-160 |          | 02/08/2018 12:52 | WG1071139        |  |
| (S) 2-Fluorobiphenyl   | 129    |           |         | 48.0-148 |          | 02/08/2018 12:52 | WG1071139        |  |
| (S) p-Terphenyl-d14    | 117    |           |         | 37.0-146 |          | 02/08/2018 12:52 | WG1071139        |  |

| Document No: J1-680-RGL-GRI-00001- | -00 |
|------------------------------------|-----|
| ACCOUNT:                           |     |
| GPL Boavorton OP                   |     |

#### SAMPLE RESULTS - 17 L968449



### Mercury by Method 7470A

|         | Result | Qualifier   | MDL    | RDL   | Dilution | Analysis         | Batch     |    |
|---------|--------|-------------|--------|-------|----------|------------------|-----------|----|
| Analyte | ug/l   |             | ug/l   | ug/l  |          | date / time      |           | 2  |
| Mercury | 0.0553 | <u>J J3</u> | 0.0490 | 0.200 | 1        | 02/09/2018 08:38 | WG1071210 | Tc |

### Metals (ICP) by Method 6010B

|           | Result | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch            |  |
|-----------|--------|-----------|-------|------|----------|------------------|------------------|--|
| Analyte   | ug/l   |           | ug/l  | ug/l |          | date / time      |                  |  |
| Beryllium | 1.35   | J         | 0.700 | 2.00 | 1        | 02/08/2018 22:18 | <u>WG1071350</u> |  |
| Cadmium   | 1.08   | J         | 0.700 | 2.00 | 1        | 02/08/2018 22:18 | <u>WG1071350</u> |  |
| Chromium  | 119    |           | 1.40  | 10.0 | 1        | 02/08/2018 22:18 | WG1071350        |  |
| Copper    | 92.5   |           | 5.30  | 10.0 | 1        | 02/08/2018 22:18 | WG1071350        |  |
| Nickel    | 82.3   |           | 4.90  | 10.0 | 1        | 02/08/2018 22:18 | WG1071350        |  |
| Selenium  | U      |           | 7.40  | 10.0 | 1        | 02/08/2018 22:18 | WG1071350        |  |
| Silver    | U      |           | 2.80  | 5.00 | 1        | 02/08/2018 22:18 | WG1071350        |  |
| Zinc      | 1050   |           | 5.90  | 50.0 | 1        | 02/08/2018 22:18 | WG1071350        |  |

### Metals (ICPMS) by Method 6020

GRI - Beaverton, OR

| Metals (ICPM | IS) by Method 6 | 6020      |       |      |          |                  |           | 1 | <sup>8</sup> A |
|--------------|-----------------|-----------|-------|------|----------|------------------|-----------|---|----------------|
|              | Result          | Qualifier | MDL   | RDL  | Dilution | Analysis         | Batch     |   |                |
| Analyte      | ug/l            |           | ug/l  | ug/l |          | date / time      |           | 1 | °S             |
| Antimony     | U               |           | 0.754 | 2.00 | 1        | 02/09/2018 12:33 | WG1071568 |   |                |
| Arsenic      | 12.4            |           | 0.250 | 2.00 | 1        | 02/09/2018 12:33 | WG1071568 |   |                |
| Lead         | 19.3            |           | 0.240 | 2.00 | 1        | 02/09/2018 12:33 | WG1071568 |   |                |
| Thallium     | 0.342           | BJ        | 0.190 | 2.00 | 1        | 02/09/2018 12:33 | WG1071568 |   |                |

# Volatile Organic Compounds (GC/MS) by Method 8260B

|                             | Result     | Qualifier      | MDL   | RDL      | Dilution | Analysis         | <u>Batch</u>   |     |
|-----------------------------|------------|----------------|-------|----------|----------|------------------|----------------|-----|
| Analyte                     | ug/l       |                | ug/l  | ug/l     |          | date / time      |                |     |
| Acetone                     | U          |                | 10.0  | 50.0     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Acrolein                    | U          | <u>J4</u>      | 8.87  | 50.0     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Acrylonitrile               | U          |                | 1.87  | 10.0     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Benzene                     | U          |                | 0.331 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Bromobenzene                | U          |                | 0.352 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Bromodichloromethane        | U          |                | 0.380 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Bromoform                   | U          |                | 0.469 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Bromomethane                | U          |                | 0.866 | 5.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| n-Butylbenzene              | U          |                | 0.361 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| sec-Butylbenzene            | U          |                | 0.365 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| tert-Butylbenzene           | U          |                | 0.399 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Carbon tetrachloride        | U          |                | 0.379 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Chlorobenzene               | U          |                | 0.348 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Chlorodibromomethane        | U          |                | 0.327 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Chloroethane                | U          |                | 0.453 | 5.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Chloroform                  | U          |                | 0.324 | 5.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Chloromethane               | U          |                | 0.276 | 2.50     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 2-Chlorotoluene             | U          |                | 0.375 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 4-Chlorotoluene             | U          |                | 0.351 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,2-Dibromo-3-Chloropropane | U          |                | 1.33  | 5.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,2-Dibromoethane           | U          |                | 0.381 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Dibromomethane              | U          |                | 0.346 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,2-Dichlorobenzene         | U          |                | 0.349 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,3-Dichlorobenzene         | U          |                | 0.220 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,4-Dichlorobenzene         | U          |                | 0.274 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Dichlorodifluoromethane     | U          |                | 0.551 | 5.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,1-Dichloroethane          | U          |                | 0.259 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,2-Dichloroethane          | U          |                | 0.361 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| 1,1-Dichloroethene          | U          |                | 0.398 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702      |     |
| Document                    | No: 11-680 | 0-RGL-GRI-0000 | 1-00  | Rev      | ision: 1 |                  | Reissued for U | Jse |
|                             | DUNT:      |                |       | PROJECT: |          | SDG:             | DATE/TIME:     | P   |
|                             |            |                |       |          |          |                  |                |     |

5764-1195

L968449

02/14/18 09:57

28 of 81

# SAMPLE RESULTS - 17 L968449

# Volatile Organic Compounds (GC/MS) by Method 8260B

|                              | Result | Qualifier | MDL   | RDL      | Dilution | Analysis         | Batch            |   |
|------------------------------|--------|-----------|-------|----------|----------|------------------|------------------|---|
| Analyte                      | ug/l   |           | ug/l  | ug/l     |          | date / time      |                  |   |
| is-1,2-Dichloroethene        | U      |           | 0.260 | 1.00     | 1        | 02/09/2018 00:08 | <u>WG1071702</u> |   |
| ans-1,2-Dichloroethene       | U      |           | 0.396 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| ,2-Dichloropropane           | U      |           | 0.306 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 1-Dichloropropene            | U      |           | 0.352 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 3-Dichloropropane            | U      |           | 0.366 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| is-1,3-Dichloropropene       | U      |           | 0.418 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| rans-1,3-Dichloropropene     | U      |           | 0.419 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| ,2-Dichloropropane           | U      |           | 0.321 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| vi-isopropyl ether           | U      |           | 0.320 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| thylbenzene                  | U      |           | 0.384 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| lexachloro-1,3-butadiene     | U      |           | 0.256 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| sopropylbenzene              | U      |           | 0.326 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        | - |
| -Isopropyltoluene            | U      |           | 0.350 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| -Butanone (MEK)              | U      |           | 3.93  | 10.0     | 1        | 02/09/2018 00:08 | WG1071702        | - |
| lethylene Chloride           | U      |           | 1.00  | 5.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| -Methyl-2-pentanone (MIBK)   | U      |           | 2.14  | 10.0     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| lethyl tert-butyl ether      | U      |           | 0.367 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| aphthalene                   | U      |           | 1.00  | 5.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| -Propylbenzene               | U      |           | 0.349 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| tyrene                       | U      |           | 0.307 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 1,1,2-Tetrachloroethane      | U      |           | 0.385 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 1,2,2-Tetrachloroethane      | U      |           | 0.130 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 1,2-Trichlorotrifluoroethane | U      |           | 0.303 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| etrachloroethene             | U      |           | 0.372 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| oluene                       | U      |           | 0.412 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 2,3-Trichlorobenzene         | U      |           | 0.230 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 2,4-Trichlorobenzene         | U      |           | 0.355 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 1,1-Trichloroethane          | U      |           | 0.319 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 1,2-Trichloroethane          | U      |           | 0.383 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| richloroethene               | U      |           | 0.398 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| richlorofluoromethane        | U      |           | 1.20  | 5.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 2,3-Trichloropropane         | U      |           | 0.807 | 2.50     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 2,4-Trimethylbenzene         | U      |           | 0.373 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 2,3-Trimethylbenzene         | U      |           | 0.321 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| 3,5-Trimethylbenzene         | U      |           | 0.387 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| inyl chloride                | U      |           | 0.259 | 1.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| ylenes, Total                | U      |           | 1.06  | 3.00     | 1        | 02/09/2018 00:08 | WG1071702        |   |
| (S) Toluene-d8               | 104    |           |       | 80.0-120 |          | 02/09/2018 00:08 | WG1071702        |   |
| (S) Dibromofluoromethane     | 83.3   |           |       | 76.0-123 |          | 02/09/2018 00:08 | WG1071702        |   |
| (S) 4-Bromofluorobenzene     | 97.4   |           |       | 80.0-120 |          | 02/09/2018 00:08 | WG1071702        |   |

|                       | Result         | Qualifier     | MDL     | RDL       | Dilution  | Analysis         | Batch            |         |
|-----------------------|----------------|---------------|---------|-----------|-----------|------------------|------------------|---------|
| Analyte               | ug/l           |               | ug/l    | ug/l      |           | date / time      |                  |         |
| Anthracene            | U              | <u>T8</u>     | 0.0420  | 0.150     | 3         | 02/08/2018 13:15 | WG1071139        |         |
| Acenaphthene          | U              | <u>T8</u>     | 0.0300  | 0.150     | 3         | 02/08/2018 13:15 | <u>WG1071139</u> |         |
| Acenaphthylene        | U              | <u>T8</u>     | 0.0360  | 0.150     | 3         | 02/08/2018 13:15 | WG1071139        |         |
| Benzo(a)anthracene    | U              | <u>T8</u>     | 0.0123  | 0.150     | 3         | 02/08/2018 13:15 | <u>WG1071139</u> |         |
| Benzo(a)pyrene        | U              | <u>T8</u>     | 0.0348  | 0.150     | 3         | 02/08/2018 13:15 | WG1071139        |         |
| Benzo(b)fluoranthene  | 0.0255         | <u>J T8</u>   | 0.00636 | 0.150     | 3         | 02/08/2018 13:15 | <u>WG1071139</u> |         |
| Benzo(g,h,i)perylene  | 0.0986         | <u>J T8</u>   | 0.00681 | 0.150     | 3         | 02/08/2018 13:15 | WG1071139        |         |
| Benzo(k)fluoranthene  | U              | <u>T8</u>     | 0.0408  | 0.150     | 3         | 02/08/2018 13:15 | <u>WG1071139</u> |         |
| Chrysene              | 0.0355         | <u>J T8</u>   | 0.0324  | 0.150     | 3         | 02/08/2018 13:15 | WG1071139        |         |
| Dibenz(a,h)anthracene | U              | <u>T8</u>     | 0.0119  | 0.150     | 3         | 02/08/2018 13:15 | <u>WG1071139</u> |         |
| Fluoranthene          | U              | <u>T8</u>     | 0.0471  | 0.150     | 3         | 02/08/2018 13:15 | WG1071139        |         |
| Fluorene              | U              | <u>T8</u>     | 0.0255  | 0.150     | 3         | 02/08/2018 13:15 | <u>WG1071139</u> |         |
| Docume                | ent No: J1-680 | -RGL-GRI-0000 | 1-00    | Rev       | vision: 1 |                  | Reissued for     | Use     |
| AC                    | CCOUNT:        |               |         | PROJECT:  |           | SDG:             | DATE/TIME:       | PAGE:   |
| GRI - E               | Beaverton, OR  |               |         | 5764-1195 |           | L968449          | 02/14/18 09:57   | 29 of 8 |

×

Qc

Gl

AI

Sc

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

|                        | Result | Qualifier   | MDL    | RDL      | Dilution | Analysis         | Batch     | C              |
|------------------------|--------|-------------|--------|----------|----------|------------------|-----------|----------------|
| Analyte                | ug/l   |             | ug/l   | ug/l     |          | date / time      |           |                |
| Indeno(1,2,3-cd)pyrene | U      | <u>T8</u>   | 0.0444 | 0.150    | 3        | 02/08/2018 13:15 | WG1071139 | <sup>2</sup>   |
| Naphthalene            | U      | <u>T8</u>   | 0.0594 | 0.750    | 3        | 02/08/2018 13:15 | WG1071139 |                |
| Phenanthrene           | U      | <u>T8</u>   | 0.0246 | 0.150    | 3        | 02/08/2018 13:15 | WG1071139 | 3              |
| Pyrene                 | 0.0512 | <u>J T8</u> | 0.0351 | 0.150    | 3        | 02/08/2018 13:15 | WG1071139 | ٌS             |
| 1-Methylnaphthalene    | U      | <u>T8</u>   | 0.0246 | 0.750    | 3        | 02/08/2018 13:15 | WG1071139 |                |
| 2-Methylnaphthalene    | U      | <u>T8</u>   | 0.0271 | 0.750    | 3        | 02/08/2018 13:15 | WG1071139 | <sup>4</sup> C |
| 2-Chloronaphthalene    | U      | <u>T8</u>   | 0.0194 | 0.750    | 3        | 02/08/2018 13:15 | WG1071139 | Ŭ              |
| (S) Nitrobenzene-d5    | 110    |             |        | 31.0-160 |          | 02/08/2018 13:15 | WG1071139 | 5              |
| (S) 2-Fluorobiphenyl   | 96.6   |             |        | 48.0-148 |          | 02/08/2018 13:15 | WG1071139 | <sup>5</sup> S |
| (S) p-Terphenyl-d14    | 75.3   |             |        | 37.0-146 |          | 02/08/2018 13:15 | WG1071139 |                |
|                        |        |             |        |          |          |                  |           |                |

#### Sample Narrative:

L968449-17 WG1071139: Cannot be analyzed at a lower dilution due to extract emulsion.

| Document No: J1-680-RGL-GRI-00001-00 | , |
|--------------------------------------|---|
| ACCOUNT:                             |   |
| GRI - Beaverton, OR                  |   |

¥

Τс

Ss

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 83.0   |           | 1        | 02/12/2018 11:03 | WG1072598 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Acenaphthene           | 0.00185      | J         | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Acenaphthylene         | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Chrysene               | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Fluoranthene           | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Fluorene               | 0.00104      | J         | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Naphthalene            | U            |           | 0.00241   | 0.0241    | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Phenanthrene           | U            |           | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| Pyrene                 | 0.000835     | J         | 0.000723  | 0.00723   | 1        | 02/08/2018 16:50 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.00241   | 0.0241    | 1        | 02/08/2018 16:50 | WG1071161 |  |
| 2-Methylnaphthalene    | U            |           | 0.00241   | 0.0241    | 1        | 02/08/2018 16:50 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00241   | 0.0241    | 1        | 02/08/2018 16:50 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 119          |           |           | 14.0-149  |          | 02/08/2018 16:50 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 89.0         |           |           | 34.0-125  |          | 02/08/2018 16:50 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 64.9         |           |           | 23.0-120  |          | 02/08/2018 16:50 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

### SAMPLE RESULTS - 19 L968449

3

# Total Solids by Method 2540 G-2011

ACCOUNT:

GRI - Beaverton, OR

| TOLAL SOLIDS DY M | ethou 2540 G-2 | 2011      |          |                  |           | 1      |   |
|-------------------|----------------|-----------|----------|------------------|-----------|--------|---|
|                   | Result         | Qualifier | Dilution | Analysis         | Batch     | <br>Ср |   |
| Analyte           | %              |           |          | date / time      |           | 2      | İ |
| Total Solids      | 75.7           |           | 1        | 02/12/2018 11:03 | WG1072598 | Tc     |   |
|                   |                | _ //      |          |                  |           |        | 1 |

# Volatile Organic Compounds (GC/MS) by Method 8260B

|                            | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch                  |
|----------------------------|--------------|-----------|-----------|-----------|----------|------------------|------------------------|
| nalyte                     | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |                        |
| cetone                     | 0.0186       | J         | 0.0132    | 0.0660    | 1        | 02/10/2018 14:26 | WG1071579              |
| crylonitrile               | U            |           | 0.00236   | 0.0132    | 1        | 02/10/2018 14:26 | WG1071579              |
| lenzene                    | U            |           | 0.000357  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Iromobenzene               | U            |           | 0.000375  | 0.00132   | 1        | 02/10/2018 14:26 | <u>WG1071579</u>       |
| romodichloromethane        | U            |           | 0.000335  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Bromoform                  | U            |           | 0.000560  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Bromomethane               | U            |           | 0.00177   | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579              |
| -Butylbenzene              | U            |           | 0.000341  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ec-Butylbenzene            | U            |           | 0.000265  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ert-Butylbenzene           | U            |           | 0.000272  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Carbon tetrachloride       | U            |           | 0.000433  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Chlorobenzene              | U            |           | 0.000280  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Chlorodibromomethane       | U            |           | 0.000493  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Chloroethane               | U            |           | 0.00125   | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579              |
| Chloroform                 | U            |           | 0.000302  | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579              |
| Chloromethane              | U            |           | 0.000495  | 0.00330   | 1        | 02/10/2018 14:26 | WG1071579              |
| -Chlorotoluene             | U            |           | 0.000398  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| -Chlorotoluene             | U            |           | 0.000317  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ,2-Dibromo-3-Chloropropane | U            |           | 0.00139   | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579              |
| 2-Dibromoethane            | U            |           | 0.000453  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Dibromomethane             | U            |           | 0.000505  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ,2-Dichlorobenzene         | U            |           | 0.000403  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| .3-Dichlorobenzene         | U            |           | 0.000316  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| 4-Dichlorobenzene          | U            |           | 0.000299  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Dichlorodifluoromethane    | U            |           | 0.000942  | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579              |
| 1-Dichloroethane           | U            |           | 0.000942  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ,2-Dichloroethane          | U            |           | 0.000263  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ,2-Dichloroethene          | U            |           | 0.000350  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| is-1,2-Dichloroethene      | U            |           | 0.000400  | 0.00132   | 1        | 02/10/2018 14:26 |                        |
|                            |              |           |           |           |          |                  | WG1071579<br>WC1071579 |
| rans-1,2-Dichloroethene    | U            |           | 0.000349  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| 2-Dichloropropane          | U            |           | 0.000473  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| 1-Dichloropropene          | U            |           | 0.000419  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| 3-Dichloropropane          | U            |           | 0.000273  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| is-1,3-Dichloropropene     | U            |           | 0.000346  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| rans-1,3-Dichloropropene   | U            |           | 0.000353  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ,2-Dichloropropane         | U            |           | 0.000369  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Di-isopropyl ether         | U            |           | 0.000328  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| thylbenzene                | U            |           | 0.000392  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| lexachloro-1,3-butadiene   | U            |           | 0.000452  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| sopropylbenzene            | U            |           | 0.000321  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| Isopropyltoluene           | U            |           | 0.000269  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| -Butanone (MEK)            | U            |           | 0.00618   | 0.0132    | 1        | 02/10/2018 14:26 | WG1071579              |
| lethylene Chloride         | U            |           | 0.00132   | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579              |
| -Methyl-2-pentanone (MIBK) | U            |           | 0.00248   | 0.0132    | 1        | 02/10/2018 14:26 | WG1071579              |
| lethyl tert-butyl ether    | U            |           | 0.000280  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| laphthalene                | U            |           | 0.00132   | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579              |
| -Propylbenzene             | U            |           | 0.000272  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| tyrene                     | U            |           | 0.000309  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| ,1,1,2-Tetrachloroethane   | U            |           | 0.000349  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579              |
| .,,,                       | U            |           | 0.000482  | 0.00132   |          | 02/10/2018 14:26 |                        |

PROJECT: 5764-1195

SDG: L968449

DATE/TIME: 02/14/18 09:57

PAGE: 32 of 81

# ×

### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|--------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                        | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| 1,1,2-Trichlorotrifluoroethane | U            |           | 0.000482  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| Tetrachloroethene              | U            |           | 0.000365  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| Toluene                        | U            |           | 0.000573  | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,2,3-Trichlorobenzene         | U            |           | 0.000404  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,2,4-Trichlorobenzene         | U            |           | 0.000512  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,1,1-Trichloroethane          | U            |           | 0.000378  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,1,2-Trichloroethane          | U            |           | 0.000366  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| Trichloroethene                | U            |           | 0.000369  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| Trichlorofluoromethane         | U            |           | 0.000505  | 0.00660   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,2,3-Trichloropropane         | U            |           | 0.000979  | 0.00330   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,2,4-Trimethylbenzene         | U            |           | 0.000279  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,2,3-Trimethylbenzene         | U            |           | 0.000379  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| 1,3,5-Trimethylbenzene         | U            |           | 0.000351  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| Vinyl chloride                 | U            |           | 0.000384  | 0.00132   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| Xylenes, Total                 | U            |           | 0.000922  | 0.00396   | 1        | 02/10/2018 14:26 | WG1071579 |  |
| (S) Toluene-d8                 | 93.4         |           |           | 80.0-120  |          | 02/10/2018 14:26 | WG1071579 |  |
| (S) Dibromofluoromethane       | 113          |           |           | 74.0-131  |          | 02/10/2018 14:26 | WG1071579 |  |
| (S) 4-Bromofluorobenzene       | 106          |           |           | 64.0-132  |          | 02/10/2018 14:26 | WG1071579 |  |

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

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Anthracene             | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Acenaphthene           | 0.0180       |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Acenaphthylene         | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Benzo(a)anthracene     | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Benzo(a)pyrene         | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Benzo(b)fluoranthene   | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Benzo(g,h,i)perylene   | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Benzo(k)fluoranthene   | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Chrysene               | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Dibenz(a,h)anthracene  | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Fluoranthene           | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Fluorene               | 0.00122      | J         | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Naphthalene            | 0.0107       | J         | 0.00264   | 0.0264    | 1        | 02/08/2018 17:11 | WG1071161 |
| Phenanthrene           | 0.000870     | J         | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| Pyrene                 | U            |           | 0.000792  | 0.00792   | 1        | 02/08/2018 17:11 | WG1071161 |
| 1-Methylnaphthalene    | U            |           | 0.00264   | 0.0264    | 1        | 02/08/2018 17:11 | WG1071161 |
| 2-Methylnaphthalene    | U            |           | 0.00264   | 0.0264    | 1        | 02/08/2018 17:11 | WG1071161 |
| 2-Chloronaphthalene    | U            |           | 0.00264   | 0.0264    | 1        | 02/08/2018 17:11 | WG1071161 |
| (S) Nitrobenzene-d5    | 80.1         |           |           | 14.0-149  |          | 02/08/2018 17:11 | WG1071161 |
| (S) 2-Fluorobiphenyl   | 70.2         |           |           | 34.0-125  |          | 02/08/2018 17:11 | WG1071161 |
| (S) p-Terphenyl-d14    | 51.4         |           |           | 23.0-120  |          | 02/08/2018 17:11 | WG1071161 |

SDG: L968449 Reissued for Use DATE/TIME: 02/14/18 09:57

PAGE: 33 of 81

### SAMPLE RESULTS - 20 L968449

1

# Total Solids by Method 2540 G-2011

GRI - Beaverton, OR

|              |        | -         |          |                  |           | <br>1'Cn |    |
|--------------|--------|-----------|----------|------------------|-----------|----------|----|
|              | Result | Qualifier | Dilution | Analysis         | Batch     | Cp       | L  |
| Analyte      | %      |           |          | date / time      |           | 2        | i. |
| Total Solids | 83.4   |           | 1        | 02/12/2018 10:15 | WG1072601 | Tc       |    |
|              |        |           |          |                  |           |          | 1  |

# Volatile Organic Compounds (GC/MS) by Method 8260B

|                            | Result (dry)    | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch                  |     |
|----------------------------|-----------------|-----------|-----------|-------------|----------|------------------|------------------------|-----|
| nalyte                     | mg/kg           |           | mg/kg     | mg/kg       |          | date / time      |                        |     |
| cetone                     | 0.0133          | J V3      | 0.0120    | 0.0599      | 1        | 02/10/2018 14:47 | WG1071579              |     |
| crylonitrile               | U               |           | 0.00215   | 0.0120      | 1        | 02/10/2018 14:47 | WG1071579              |     |
| enzene                     | U               |           | 0.000324  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| romobenzene                | U               |           | 0.000340  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| romodichloromethane        | U               |           | 0.000305  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| romoform                   | U               |           | 0.000508  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| romomethane                | U               |           | 0.00161   | 0.00599     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| -Butylbenzene              | U               |           | 0.000309  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ec-Butylbenzene            | U               |           | 0.000241  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ert-Butylbenzene           | U               |           | 0.000247  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| arbon tetrachloride        | U               |           | 0.000393  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| hlorobenzene               | U               |           | 0.000254  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| hlorodibromomethane        | U               |           | 0.000447  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| hloroethane                | U               |           | 0.00113   | 0.00599     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| hloroform                  | U               |           | 0.000275  | 0.00599     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| hloromethane               | U               |           | 0.000450  | 0.00300     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| -Chlorotoluene             | U               |           | 0.000361  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| -Chlorotoluene             | U               |           | 0.000288  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 2-Dibromo-3-Chloropropane  | U               |           | 0.00126   | 0.00599     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 2-Dibromoethane            | U               |           | 0.000411  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ibromomethane              | U               |           | 0.000458  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 2-Dichlorobenzene          | U               |           | 0.000366  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 3-Dichlorobenzene          | U               |           | 0.000287  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 4-Dichlorobenzene          | U               |           | 0.000271  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ichlorodifluoromethane     | U               |           | 0.000855  | 0.00599     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 1-Dichloroethane           | U               |           | 0.000239  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 2-Dichloroethane           | U               |           | 0.000233  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 1-Dichloroethene           | U               |           | 0.000363  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| is-1,2-Dichloroethene      | U               |           | 0.000303  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ans-1,2-Dichloroethene     | U               |           | 0.000317  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 2-Dichloropropane          | U               |           | 0.000317  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 1-Dichloropropene          | U               |           | 0.000429  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 3-Dichloropropane          | U               |           | 0.000380  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| s-Dichloropropene          | U               |           | 0.000248  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ans-1,3-Dichloropropene    | U               |           | 0.000314  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ,2-Dichloropropane         | U               |           | 0.000320  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| i-isopropyl ether          | U               |           | 0.000334  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| hylbenzene                 | U               |           | 0.000297  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| exachloro-1,3-butadiene    | U               |           | 0.000356  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| opropylbenzene             | U               |           | 0.000410  | 0.00120     | 1        | 02/10/2018 14:47 |                        |     |
|                            | U               |           | 0.000291  | 0.00120     |          | 02/10/2018 14:47 | WG1071579<br>WG1071579 |     |
| -Isopropyltoluene          | U               |           | 0.000245  | 0.00120     | 1        | 02/10/2018 14:47 |                        |     |
| -Butanone (MEK)            |                 |           |           |             |          |                  | WG1071579              |     |
| ethylene Chloride          | U               |           | 0.00120   | 0.00599     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| -Methyl-2-pentanone (MIBK) | U               |           | 0.00225   | 0.0120      | 1        | 02/10/2018 14:47 | WG1071579              |     |
| ethyl tert-butyl ether     | U               |           | 0.000254  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| aphthalene                 | U               |           | 0.00120   | 0.00599     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| -Propylbenzene             | U               |           | 0.000247  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| tyrene                     | U               |           | 0.000281  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 1,1,2-Tetrachloroethane    | U               |           | 0.000317  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
| 1,2,2-Tetrachloroethane    | U               |           | 0.000438  | 0.00120     | 1        | 02/10/2018 14:47 | WG1071579              |     |
|                            | J1-680-RGL-GRI- | 00001 00  |           | Revision: 1 |          |                  | Reissued for l         | lco |

5764-1195

L968449

02/14/18 09:57

34 of 81



### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result (dry) | Qualifier  | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|--------------------------------|--------------|------------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                        | mg/kg        |            | mg/kg     | mg/kg     |          | date / time      |           |  |
| 1,1,2-Trichlorotrifluoroethane | U            |            | 0.000438  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| Tetrachloroethene              | U            |            | 0.000331  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| Toluene                        | 0.000567     | <u>JV3</u> | 0.000520  | 0.00599   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,2,3-Trichlorobenzene         | U            |            | 0.000367  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,2,4-Trichlorobenzene         | U            |            | 0.000465  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,1,1-Trichloroethane          | U            |            | 0.000343  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,1,2-Trichloroethane          | U            |            | 0.000332  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| Trichloroethene                | U            |            | 0.000334  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| Trichlorofluoromethane         | U            |            | 0.000458  | 0.00599   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,2,3-Trichloropropane         | U            |            | 0.000888  | 0.00300   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,2,4-Trimethylbenzene         | 0.000361     | <u>JV3</u> | 0.000253  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,2,3-Trimethylbenzene         | U            |            | 0.000344  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| 1,3,5-Trimethylbenzene         | U            |            | 0.000319  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| Vinyl chloride                 | U            |            | 0.000349  | 0.00120   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| Xylenes, Total                 | U            |            | 0.000837  | 0.00360   | 1        | 02/10/2018 14:47 | WG1071579 |  |
| (S) Toluene-d8                 | 92.2         |            |           | 80.0-120  |          | 02/10/2018 14:47 | WG1071579 |  |
| (S) Dibromofluoromethane       | 107          |            |           | 74.0-131  |          | 02/10/2018 14:47 | WG1071579 |  |
| (S) 4-Bromofluorobenzene       | 114          |            |           | 64.0-132  |          | 02/10/2018 14:47 | WG1071579 |  |

#### Sample Narrative:

L968449-20 WG1071579: Previous run also had low IS/SURR recovery. Matrix effect.

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

|                        | Result (dry) Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch            |
|------------------------|------------------------|-----------|-----------|----------|------------------|------------------|
| Analyte                | mg/kg                  | mg/kg     | mg/kg     |          | date / time      |                  |
| Anthracene             | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Acenaphthene           | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Acenaphthylene         | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Benzo(a)anthracene     | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Benzo(a)pyrene         | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Benzo(b)fluoranthene   | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Benzo(g,h,i)perylene   | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Benzo(k)fluoranthene   | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Chrysene               | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Dibenz(a,h)anthracene  | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Fluoranthene           | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Fluorene               | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Indeno(1,2,3-cd)pyrene | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Naphthalene            | U                      | 0.00240   | 0.0240    | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Phenanthrene           | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| Pyrene                 | U                      | 0.000719  | 0.00719   | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| 1-Methylnaphthalene    | U                      | 0.00240   | 0.0240    | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| 2-Methylnaphthalene    | U                      | 0.00240   | 0.0240    | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| 2-Chloronaphthalene    | U                      | 0.00240   | 0.0240    | 1        | 02/08/2018 17:31 | <u>WG1071161</u> |
| (S) Nitrobenzene-d5    | 116                    |           | 14.0-149  |          | 02/08/2018 17:31 | WG1071161        |
| (S) 2-Fluorobiphenyl   | 90.0                   |           | 34.0-125  |          | 02/08/2018 17:31 | WG1071161        |
| (S) p-Terphenyl-d14    | 93.8                   |           | 23.0-120  |          | 02/08/2018 17:31 | WG1071161        |

| Do | ocument No:     | J1-680-RGL-GRI-00001-00 |
|----|-----------------|-------------------------|
|    | ACCOUNT         | 2                       |
|    | GRI - Beavertoi | n, OR                   |

PROJECT: 5764-1195

Revision: 1

SDG: L968449 Reissued for Use DATE/TIME: 02/14/18 09:57

PAGE: 35 of 81



# Volatile Organic Compounds (GC/MS) by Method 8260B

|                             | Result     | Qualifier      | MDL   | RDL       | Dilution  | Analysis         | Batch     |                  |         |
|-----------------------------|------------|----------------|-------|-----------|-----------|------------------|-----------|------------------|---------|
| nalyte                      | ug/l       |                | ug/l  | ug/l      |           | date / time      |           |                  |         |
| cetone                      | U          |                | 10.0  | 50.0      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| crolein                     | U          | <u>J4</u>      | 8.87  | 50.0      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| crylonitrile                | U          |                | 1.87  | 10.0      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Benzene                     | U          |                | 0.331 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Bromobenzene                | U          |                | 0.352 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| romodichloromethane         | U          |                | 0.380 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| romoform                    | U          |                | 0.469 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| romomethane                 | U          |                | 0.866 | 5.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| -Butylbenzene               | U          |                | 0.361 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| ec-Butylbenzene             | U          |                | 0.365 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| ert-Butylbenzene            | U          |                | 0.399 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| arbon tetrachloride         | U          |                | 0.379 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| hlorobenzene                | U          |                | 0.348 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| hlorodibromomethane         | U          |                | 0.327 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| nloroethane                 | U          |                | 0.453 | 5.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| hloroform                   | U          |                | 0.324 | 5.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| nloromethane                | U          |                | 0.276 | 2.50      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| -Chlorotoluene              | U          |                | 0.375 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Chlorotoluene               | U          |                | 0.351 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2-Dibromo-3-Chloropropane   | U          |                | 1.33  | 5.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2-Dibromoethane             | U          |                | 0.381 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| bromomethane                | U          |                | 0.346 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2-Dichlorobenzene           | U          |                | 0.349 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| B-Dichlorobenzene           | U          |                | 0.220 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| I-Dichlorobenzene           | U          |                | 0.274 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| chlorodifluoromethane       | U          |                | 0.551 | 5.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| -Dichloroethane             | U          |                | 0.259 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2-Dichloroethane            | U          |                | 0.361 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| -Dichloroethene             | U          |                | 0.398 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| s-1,2-Dichloroethene        | U          |                | 0.260 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| ans-1,2-Dichloroethene      | U          |                | 0.396 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2-Dichloropropane           | U          |                | 0.306 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| -Dichloropropene            | U          |                | 0.352 | 1.00      | 1         | 02/09/2018 00:27 |           |                  |         |
|                             | U          |                | 0.366 | 1.00      | 1         |                  | WG1071702 |                  |         |
| B-Dichloropropane           |            |                |       |           |           | 02/09/2018 00:27 | WG1071702 |                  |         |
| s-1,3-Dichloropropene       | U          |                | 0.418 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| ans-1,3-Dichloropropene     | U          |                | 0.419 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2-Dichloropropane           | U          |                | 0.321 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| -isopropyl ether            | U          |                | 0.320 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| hylbenzene                  | U          |                | 0.384 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| exachloro-1,3-butadiene     | U          |                | 0.256 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| opropylbenzene              | U          |                | 0.326 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Isopropyltoluene            | U          |                | 0.350 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Butanone (MEK)              | U          |                | 3.93  | 10.0      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| ethylene Chloride           | U          |                | 1.00  | 5.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Methyl-2-pentanone (MIBK)   | U          |                | 2.14  | 10.0      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| ethyl tert-butyl ether      | U          |                | 0.367 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| phthalene                   | U          |                | 1.00  | 5.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Propylbenzene               | U          |                | 0.349 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| rene                        | U          |                | 0.307 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 1,2-Tetrachloroethane       | U          |                | 0.385 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2,2-Tetrachloroethane       | U          |                | 0.130 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| ,2-Trichlorotrifluoroethane | U          |                | 0.303 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| trachloroethene             | U          |                | 0.372 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| oluene                      | U          |                | 0.412 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2,3-Trichlorobenzene        | U          |                | 0.230 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| 2,4-Trichlorobenzene        | U          |                | 0.355 | 1.00      | 1         | 02/09/2018 00:27 | WG1071702 |                  |         |
| Document                    | No: J1-680 | 0-RGL-GRI-0000 | 1-00  | Rev       | vision: 1 |                  |           | Reissued for Use |         |
| ACCO                        | OUNT:      |                |       | PROJECT:  |           | SDG:             | DATE      | /TIME:           | PAGE:   |
|                             | verton, OR |                |       | 5764-1195 |           | L968449          | 02/14/1   | 8 09:57          | 36 of 8 |



Â

Sc

### Volatile Organic Compounds (GC/MS) by Method 8260B

|                          | Result | Qualifier | MDL   | RDL      | Dilution | Analysis         | Batch            | C               |
|--------------------------|--------|-----------|-------|----------|----------|------------------|------------------|-----------------|
| Analyte                  | ug/l   |           | ug/l  | ug/l     |          | date / time      |                  |                 |
| 1,1,1-Trichloroethane    | U      |           | 0.319 | 1.00     | 1        | 02/09/2018 00:27 | WG1071702        | <sup>2</sup> T  |
| 1,1,2-Trichloroethane    | U      |           | 0.383 | 1.00     | 1        | 02/09/2018 00:27 | <u>WG1071702</u> |                 |
| Trichloroethene          | U      |           | 0.398 | 1.00     | 1        | 02/09/2018 00:27 | WG1071702        | 3               |
| Trichlorofluoromethane   | U      |           | 1.20  | 5.00     | 1        | 02/09/2018 00:27 | <u>WG1071702</u> | ິS:             |
| 1,2,3-Trichloropropane   | U      |           | 0.807 | 2.50     | 1        | 02/09/2018 00:27 | WG1071702        |                 |
| 1,2,4-Trimethylbenzene   | U      |           | 0.373 | 1.00     | 1        | 02/09/2018 00:27 | <u>WG1071702</u> | <sup>4</sup> C  |
| 1,2,3-Trimethylbenzene   | U      |           | 0.321 | 1.00     | 1        | 02/09/2018 00:27 | WG1071702        | Ŭ               |
| 1,3,5-Trimethylbenzene   | U      |           | 0.387 | 1.00     | 1        | 02/09/2018 00:27 | <u>WG1071702</u> | 5               |
| Vinyl chloride           | U      |           | 0.259 | 1.00     | 1        | 02/09/2018 00:27 | WG1071702        | <sup>5</sup> Si |
| Xylenes, Total           | U      |           | 1.06  | 3.00     | 1        | 02/09/2018 00:27 | WG1071702        |                 |
| (S) Toluene-d8           | 107    |           |       | 80.0-120 |          | 02/09/2018 00:27 | WG1071702        | <sup>6</sup> Q  |
| (S) Dibromofluoromethane | 85.6   |           |       | 76.0-123 |          | 02/09/2018 00:27 | <u>WG1071702</u> |                 |
| (S) 4-Bromofluorobenzene | 95.0   |           |       | 80.0-120 |          | 02/09/2018 00:27 | WG1071702        | <sup>7</sup> G  |

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

|                        | Result | Qualifier | MDL     | RDL      | Dilution | Analysis         | Batch     |  |
|------------------------|--------|-----------|---------|----------|----------|------------------|-----------|--|
| Analyte                | ug/l   |           | ug/l    | ug/l     |          | date / time      |           |  |
| Anthracene             | U      |           | 0.0420  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Acenaphthene           | U      |           | 0.0300  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Acenaphthylene         | U      |           | 0.0360  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Benzo(a)anthracene     | U      |           | 0.0123  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Benzo(a)pyrene         | U      |           | 0.0348  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Benzo(b)fluoranthene   | U      |           | 0.00636 | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Benzo(g,h,i)perylene   | U      |           | 0.00681 | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Benzo(k)fluoranthene   | U      |           | 0.0408  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Chrysene               | U      |           | 0.0324  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Dibenz(a,h)anthracene  | U      |           | 0.0119  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Fluoranthene           | U      |           | 0.0471  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Fluorene               | U      |           | 0.0255  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Indeno(1,2,3-cd)pyrene | U      |           | 0.0444  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Naphthalene            | 0.0599 | J         | 0.0594  | 0.750    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Phenanthrene           | U      |           | 0.0246  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| Pyrene                 | U      |           | 0.0351  | 0.150    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| 1-Methylnaphthalene    | U      |           | 0.0246  | 0.750    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| 2-Methylnaphthalene    | U      |           | 0.0271  | 0.750    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| 2-Chloronaphthalene    | U      |           | 0.0194  | 0.750    | 3        | 02/08/2018 13:39 | WG1071139 |  |
| (S) Nitrobenzene-d5    | 116    |           |         | 31.0-160 |          | 02/08/2018 13:39 | WG1071139 |  |
| (S) 2-Fluorobiphenyl   | 108    |           |         | 48.0-148 |          | 02/08/2018 13:39 | WG1071139 |  |
| (S) p-Terphenyl-d14    | 91.8   |           |         | 37.0-146 |          | 02/08/2018 13:39 | WG1071139 |  |
|                        |        |           |         |          |          |                  |           |  |

#### Sample Narrative:

L968449-21 WG1071139: Cannot be analyzed at a lower dilution due to extract emulsion.

Revision: 1

SDG: L968449 Reissued for Use DATE/TIME: 02/14/18 09:57

# Collected date/time: 01/31/18 11:15

### SAMPLE RESULTS - 22 L968449

ONE LAB. NATIONWIDE.

### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |    |
|--------------|--------|-----------|----------|------------------|-----------|----|
| Analyte      | %      |           |          | date / time      |           | 2  |
| Total Solids | 82.6   |           | 1        | 02/12/2018 10:15 | WG1072601 | Tc |

### Mercury by Method 7471A

|         | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |   |
|---------|--------------|-----------|-----------|-----------|----------|------------------|-----------|---|
| Analyte | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           | 4 |
| Mercury | 0.00807      | ВJ        | 0.00339   | 0.0242    | 1        | 02/13/2018 08:30 | WG1072718 |   |

# Metals (ICP) by Method 6010B

|                   | Result       | Qualifier  | Dilution Analy | /sis         | Batch    |                  |           |  |
|-------------------|--------------|------------|----------------|--------------|----------|------------------|-----------|--|
| Analyte           | %            |            |                | / time       |          |                  |           |  |
| Total Solids      | 82.6         |            | 1 02/12        | 2/2018 10:15 | WG1072   | 601              |           |  |
| Mercury by Met    | hod 7471A    |            |                |              |          |                  |           |  |
|                   | Result (dry) | Qualifier  | MDL (dry)      | RDL (dry)    | Dilution | Analysis         | Batch     |  |
| Analyte           | mg/kg        |            | mg/kg          | mg/kg        |          | date / time      |           |  |
| Mercury           | 0.00807      | <u>B J</u> | 0.00339        | 0.0242       | 1        | 02/13/2018 08:30 | WG1072718 |  |
| Metals (ICP) by N | Vethod 6010B |            |                |              |          |                  |           |  |
|                   | Result (dry) | Qualifier  | MDL (dry)      | RDL (dry)    | Dilution | Analysis         | Batch     |  |
| Analyte           | mg/kg        |            | mg/kg          | mg/kg        |          | date / time      |           |  |
| Antimony          | U            |            | 0.908          | 2.42         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Arsenic           | 3.12         |            | 0.787          | 2.42         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Beryllium         | 0.106        | J          | 0.0848         | 0.242        | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Cadmium           | U            |            | 0.0848         | 0.606        | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Chromium          | 7.50         |            | 0.170          | 1.21         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Copper            | 2.84         |            | 0.642          | 2.42         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Lead              | 6.54         |            | 0.230          | 0.606        | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Nickel            | 5.30         |            | 0.593          | 2.42         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Selenium          | U            |            | 0.896          | 2.42         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Silver            | U            |            | 0.339          | 1.21         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Thallium          | U            |            | 0.787          | 2.42         | 1        | 02/13/2018 20:04 | WG1073100 |  |
| Zinc              | 28.1         |            | 0.715          | 6.06         | 1        | 02/13/2018 20:04 | WG1073100 |  |
|                   |              |            |                |              |          |                  |           |  |

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | 3.45         | J         | 1.60      | 4.84      | 1        | 02/09/2018 12:57 | WG1071154 |
| Residual Range Organics (RRO) | U            |           | 4.00      | 12.1      | 1        | 02/09/2018 12:57 | WG1071154 |
| (S) o-Terphenyl               | 65.5         |           |           | 18.0-148  |          | 02/09/2018 12:57 | WG1071154 |

|                        | Result (dry) Qualifier      | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch            |         |
|------------------------|-----------------------------|-----------|-------------|----------|------------------|------------------|---------|
| Analyte                | mg/kg                       | mg/kg     | mg/kg       |          | date / time      |                  |         |
| Anthracene             | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Acenaphthene           | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Acenaphthylene         | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Benzo(a)anthracene     | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Benzo(a)pyrene         | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Benzo(b)fluoranthene   | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Benzo(g,h,i)perylene   | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Benzo(k)fluoranthene   | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Chrysene               | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Dibenz(a,h)anthracene  | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Fluoranthene           | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Fluorene               | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Indeno(1,2,3-cd)pyrene | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Naphthalene            | U                           | 0.00242   | 0.0242      | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Phenanthrene           | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| Pyrene                 | U                           | 0.000727  | 0.00727     | 1        | 02/08/2018 17:52 | WG1071161        |         |
| 1-Methylnaphthalene    | U                           | 0.00242   | 0.0242      | 1        | 02/08/2018 17:52 | WG1071161        |         |
| 2-Methylnaphthalene    | U                           | 0.00242   | 0.0242      | 1        | 02/08/2018 17:52 | WG1071161        |         |
| 2-Chloronaphthalene    | U                           | 0.00242   | 0.0242      | 1        | 02/08/2018 17:52 | WG1071161        |         |
| (S) Nitrobenzene-d5    | 108                         |           | 14.0-149    |          | 02/08/2018 17:52 | WG1071161        |         |
| (S) 2-Fluorobiphenyl   | 79.3                        |           | 34.0-125    |          | 02/08/2018 17:52 | WG1071161        |         |
| Document               | No: J1-680-RGL-GRI-00001-00 | F         | Revision: 1 |          |                  | Reissued for Use |         |
| ACCO                   | UNT:                        | PROJECT:  |             | SDG      | i:               | DATE/TIME:       | PAGE    |
| GRI - Beav             | erton, OR                   | 5764-1195 |             | L9684    | 49               | 02/14/18 09:57   | 38 of 8 |

×

|                     | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     | Ċ        |
|---------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|----------|
| Analyte             | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |          |
| (S) p-Terphenyl-d14 | 62.6         |           |           | 23.0-120  |          | 02/08/2018 17:52 | WG1071161 | $^{2}$ T |

| <sup>2</sup> Tc |
|-----------------|
| <sup>3</sup> Ss |
| <sup>4</sup> Cn |
| ⁵Sr             |
| <sup>6</sup> Qc |
| <sup>7</sup> Gl |
| <sup>8</sup> AI |
| °Sc             |

# Collected date/time: 01/31/18 15:45

### SAMPLE RESULTS - 23 L968449

### Total Solids by Method 2540 G-2011

GRI - Beaverton, OR

|              | - | Result | Qualifier | Dilution | Analysis         | Batch     | Ср |  |
|--------------|---|--------|-----------|----------|------------------|-----------|----|--|
| Analyte      |   | %      |           |          | date / time      | —         | 2  |  |
| Total Solids |   | 83.3   |           | 1        | 02/12/2018 10:15 | WG1072601 | Tc |  |

### Volatile Organic Compounds (GC/MS) by Method 8260B

|                              | Result (dry)    | Qualifier | MDL (dry) | RDL (dry)   | Dilution | Analysis         | Batch          |  |
|------------------------------|-----------------|-----------|-----------|-------------|----------|------------------|----------------|--|
| nalyte                       | mg/kg           |           | mg/kg     | mg/kg       |          | date / time      |                |  |
| cetone                       | 0.0188          | J         | 0.0120    | 0.0600      | 1        | 02/10/2018 15:09 | WG1071579      |  |
| crylonitrile                 | U               | -         | 0.00215   | 0.0120      | 1        | 02/10/2018 15:09 | WG1071579      |  |
| lenzene                      | U               |           | 0.000324  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| romobenzene                  | U               |           | 0.000341  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| romodichloromethane          | U               |           | 0.000305  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Bromoform                    | U               |           | 0.000509  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| romomethane                  | U               |           | 0.00161   | 0.00600     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| -Butylbenzene                | U               |           | 0.000310  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ec-Butylbenzene              | U               |           | 0.000241  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ert-Butylbenzene             | U               |           | 0.000247  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Carbon tetrachloride         | U               |           | 0.000394  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Chlorobenzene                | U               |           | 0.000255  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Chlorodibromomethane         | U               |           | 0.000255  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Chloroethane                 | U               |           | 0.000448  | 0.00120     | 1        | 02/10/2018 15:09 |                |  |
|                              |                 |           |           |             |          |                  | WG1071579      |  |
| Chloroform                   | U               |           | 0.000275  | 0.00600     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Chloromethane                | U               |           | 0.000450  | 0.00300     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| -Chlorotoluene               | U               |           | 0.000361  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| -Chlorotoluene               | U               |           | 0.000288  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| 2-Dibromo-3-Chloropropane    | U               |           | 0.00126   | 0.00600     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,2-Dibromoethane             | U               |           | 0.000412  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Dibromomethane               | U               |           | 0.000459  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,2-Dichlorobenzene           | U               |           | 0.000366  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,3-Dichlorobenzene           | U               |           | 0.000287  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| 4-Dichlorobenzene            | U               |           | 0.000271  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Dichlorodifluoromethane      | U               |           | 0.000856  | 0.00600     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,1-Dichloroethane            | U               |           | 0.000239  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,2-Dichloroethane            | U               |           | 0.000318  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,1-Dichloroethene            | U               |           | 0.000364  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| is-1,2-Dichloroethene        | U               |           | 0.000282  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| rans-1,2-Dichloroethene      | U               |           | 0.000317  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,2-Dichloropropane           | U               |           | 0.000430  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,1-Dichloropropene           | U               |           | 0.000381  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,3-Dichloropropane           | U               |           | 0.000249  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| is-1,3-Dichloropropene       | U               |           | 0.000315  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| rans-1,3-Dichloropropene     | U               |           | 0.000321  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| ,2-Dichloropropane           | U               |           | 0.000335  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| )i-isopropyl ether           | U               |           | 0.000298  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| thylbenzene                  | U               |           | 0.000357  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| lexachloro-1,3-butadiene     | U               |           | 0.000411  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| sopropylbenzene              | U               |           | 0.000292  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| Isopropyltoluene             | U               |           | 0.000232  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| -Butanone (MEK)              | U               |           | 0.00562   | 0.0120      | 1        | 02/10/2018 15:09 | WG1071579      |  |
| lethylene Chloride           | U               |           | 0.00120   | 0.00600     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| -Methyl-2-pentanone (MIBK)   | U               |           | 0.00120   | 0.0120      | 1        | 02/10/2018 15:09 | WG1071579      |  |
| lethyl tert-butyl ether      | U               |           | 0.00226   | 0.0120      | 1        | 02/10/2018 15:09 | WG1071579      |  |
|                              | U               |           | 0.000255  | 0.00120     | 1        | 02/10/2018 15:09 |                |  |
| laphthalene<br>Propulsonzono |                 |           |           |             |          |                  | WG1071579      |  |
| -Propylbenzene               | U               |           | 0.000247  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| tyrene                       | U               |           | 0.000281  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| 1,1,2-Tetrachloroethane      | U               |           | 0.000317  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
| 1,2,2-Tetrachloroethane      | U               |           | 0.000438  | 0.00120     | 1        | 02/10/2018 15:09 | WG1071579      |  |
|                              | J1-680-RGL-GRI- |           | -         | Revision: 1 |          |                  | Reissued for L |  |

5764-1195

L968449

02/14/18 09:57

40 of 81



### Volatile Organic Compounds (GC/MS) by Method 8260B

|                                | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|--------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                        | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| 1,1,2-Trichlorotrifluoroethane | U            |           | 0.000438  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| Tetrachloroethene              | U            |           | 0.000331  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| Toluene                        | U            |           | 0.000521  | 0.00600   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,2,3-Trichlorobenzene         | U            |           | 0.000367  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,2,4-Trichlorobenzene         | U            |           | 0.000466  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,1,1-Trichloroethane          | U            |           | 0.000343  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,1,2-Trichloroethane          | U            |           | 0.000333  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| Trichloroethene                | U            |           | 0.000335  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| Trichlorofluoromethane         | U            |           | 0.000459  | 0.00600   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,2,3-Trichloropropane         | U            |           | 0.000890  | 0.00300   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,2,4-Trimethylbenzene         | U            |           | 0.000253  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,2,3-Trimethylbenzene         | U            |           | 0.000345  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| 1,3,5-Trimethylbenzene         | U            |           | 0.000319  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| Vinyl chloride                 | U            |           | 0.000349  | 0.00120   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| Xylenes, Total                 | U            |           | 0.000838  | 0.00360   | 1        | 02/10/2018 15:09 | WG1071579 |  |
| (S) Toluene-d8                 | 90.7         |           |           | 80.0-120  |          | 02/10/2018 15:09 | WG1071579 |  |
| (S) Dibromofluoromethane       | 112          |           |           | 74.0-131  |          | 02/10/2018 15:09 | WG1071579 |  |
| (S) 4-Bromofluorobenzene       | 112          |           |           | 64.0-132  |          | 02/10/2018 15:09 | WG1071579 |  |

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | U            |           | 1.58      | 4.80      | 1        | 02/09/2018 13:10 | WG1071154 |
| Residual Range Organics (RRO) | 5.79         | J         | 3.96      | 12.0      | 1        | 02/09/2018 13:10 | WG1071154 |
| (S) o-Terphenyl               | 63.6         |           |           | 18.0-148  |          | 02/09/2018 13:10 | WG1071154 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch            |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|------------------|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |                  |
| Anthracene             | 0.00241      | J         | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Acenaphthene           | 0.00376      | J         | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Acenaphthylene         | 0.000818     | J         | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Benzo(a)anthracene     | 0.00109      | J         | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Benzo(a)pyrene         | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Benzo(b)fluoranthene   | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Benzo(g,h,i)perylene   | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Benzo(k)fluoranthene   | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Chrysene               | 0.000728     | J         | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Dibenz(a,h)anthracene  | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Fluoranthene           | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Fluorene               | 0.00339      | J         | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Naphthalene            | 0.0129       | J         | 0.00240   | 0.0240    | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Phenanthrene           | 0.00928      |           | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| Pyrene                 | 0.00229      | J         | 0.000720  | 0.00720   | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| 1-Methylnaphthalene    | 0.0451       |           | 0.00240   | 0.0240    | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| 2-Methylnaphthalene    | 0.0520       |           | 0.00240   | 0.0240    | 1        | 02/08/2018 18:13 | <u>WG1071161</u> |
| 2-Chloronaphthalene    | U            |           | 0.00240   | 0.0240    | 1        | 02/08/2018 18:13 | WG1071161        |
| (S) Nitrobenzene-d5    | 117          |           |           | 14.0-149  |          | 02/08/2018 18:13 | <u>WG1071161</u> |
| (S) 2-Fluorobiphenyl   | 85.7         |           |           | 34.0-125  |          | 02/08/2018 18:13 | WG1071161        |
| (S) p-Terphenyl-d14    | 81.4         |           |           | 23.0-120  |          | 02/08/2018 18:13 | WG1071161        |
|                        |              |           |           |           |          |                  |                  |

| Document No: J1-680-RGL-GRI-00001-00 | Revision: | 1       | Reissued for Use |          |  |
|--------------------------------------|-----------|---------|------------------|----------|--|
| ACCOUNT:                             | PROJECT:  | SDG:    | DATE/TIME:       | PAGE:    |  |
| GRI - Beaverton, OR                  | 5764-1195 | L968449 | 02/14/18 09:57   | 41 of 81 |  |

### SAMPLE RESULTS - 24 L968449

Тс

Ss

Cn

### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 84.8   |           | 1        | 02/12/2018 10:15 | WG1072601 |

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | U            |           | 1.56      | 4.71      | 1        | 02/09/2018 13:24 | WG1071154 |
| Residual Range Organics (RRO) | U            |           | 3.89      | 11.8      | 1        | 02/09/2018 13:24 | WG1071154 |
| (S) o-Terphenyl               | 97.9         |           |           | 18.0-148  |          | 02/09/2018 13:24 | WG1071154 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | 0.000724     | J         | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Acenaphthene           | 0.00140      | J         | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Acenaphthylene         | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Chrysene               | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Fluoranthene           | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Fluorene               | 0.00128      | J         | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Naphthalene            | U            |           | 0.00236   | 0.0236    | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Phenanthrene           | 0.00314      | J         | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| Pyrene                 | U            |           | 0.000707  | 0.00707   | 1        | 02/08/2018 19:15 | WG1071161 |  |
| 1-Methylnaphthalene    | 0.00855      | J         | 0.00236   | 0.0236    | 1        | 02/08/2018 19:15 | WG1071161 |  |
| 2-Methylnaphthalene    | 0.00959      | J         | 0.00236   | 0.0236    | 1        | 02/08/2018 19:15 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00236   | 0.0236    | 1        | 02/08/2018 19:15 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 115          |           |           | 14.0-149  |          | 02/08/2018 19:15 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 90.5         |           |           | 34.0-125  |          | 02/08/2018 19:15 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 90.1         |           |           | 23.0-120  |          | 02/08/2018 19:15 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |



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

|                        | Result | Qualifier | MDL     | RDL      | Dilution | Analysis         | Batch            |   |
|------------------------|--------|-----------|---------|----------|----------|------------------|------------------|---|
| Analyte                | ug/l   |           | ug/l    | ug/l     |          | date / time      |                  | , in the second s |
| Anthracene             | U      |           | 0.0420  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| Acenaphthene           | U      |           | 0.0300  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        | L   |
| Acenaphthylene         | U      |           | 0.0360  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        | -   |
| Benzo(a)anthracene     | U      |           | 0.0123  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| Benzo(a)pyrene         | U      |           | 0.0348  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        | 1   |
| Benzo(b)fluoranthene   | U      |           | 0.00636 | 0.150    | 3        | 02/08/2018 14:02 | <u>WG1071139</u> |   |
| Benzo(g,h,i)perylene   | U      |           | 0.00681 | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        | L   |
| Benzo(k)fluoranthene   | U      |           | 0.0408  | 0.150    | 3        | 02/08/2018 14:02 | <u>WG1071139</u> |   |
| Chrysene               | U      |           | 0.0324  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| Dibenz(a,h)anthracene  | U      |           | 0.0119  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        | i i i   |
| Fluoranthene           | U      |           | 0.0471  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| Fluorene               | U      |           | 0.0255  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        | l   |
| Indeno(1,2,3-cd)pyrene | U      |           | 0.0444  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| Naphthalene            | 0.0872 | J         | 0.0594  | 0.750    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| Phenanthrene           | U      |           | 0.0246  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        | [   |
| Pyrene                 | U      |           | 0.0351  | 0.150    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| 1-Methylnaphthalene    | 0.0370 | J         | 0.0246  | 0.750    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| 2-Methylnaphthalene    | 0.0355 | J         | 0.0271  | 0.750    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| 2-Chloronaphthalene    | U      |           | 0.0194  | 0.750    | 3        | 02/08/2018 14:02 | WG1071139        |   |
| (S) Nitrobenzene-d5    | 118    |           |         | 31.0-160 |          | 02/08/2018 14:02 | WG1071139        |   |
| (S) 2-Fluorobiphenyl   | 109    |           |         | 48.0-148 |          | 02/08/2018 14:02 | WG1071139        |   |
| (S) p-Terphenyl-d14    | 92.7   |           |         | 37.0-146 |          | 02/08/2018 14:02 | WG1071139        |   |

#### Sample Narrative:

L968449-25 WG1071139: Cannot be analyzed at a lower dilution due to extract emulsion.

| Document No: J1-680-RGL-GRI-00001-00 | Revision: | 1       |          |
|--------------------------------------|-----------|---------|----------|
| ACCOUNT:                             | PROJECT:  | SDG:    | DATE/T   |
| GRI - Beaverton, OR                  | 5764-1195 | L968449 | 02/14/18 |

 Reissued for Use

 :/TIME:
 PAGE:

 8 09:57
 43 of 81

Collected date/time: 02/01/18 11:10

### SAMPLE RESULTS - 26 L968449



Τс

°Ss

### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 83.8   |           | 1        | 02/12/2018 10:29 | WG1072603 |

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Acenaphthene           | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Acenaphthylene         | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Benzo(a)anthracene     | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Benzo(a)pyrene         | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Benzo(b)fluoranthene   | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Benzo(g,h,i)perylene   | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Benzo(k)fluoranthene   | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Chrysene               | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Fluoranthene           | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Fluorene               | 0.000754     | J         | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Naphthalene            | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Phenanthrene           | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| Pyrene                 | U            |           | 0.000716  | 0.00716   | 1        | 02/08/2018 19:36 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 19:36 | WG1071161 |  |
| 2-Methylnaphthalene    | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 19:36 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.00239   | 0.0239    | 1        | 02/08/2018 19:36 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 123          |           |           | 14.0-149  |          | 02/08/2018 19:36 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 92.8         |           |           | 34.0-125  |          | 02/08/2018 19:36 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 86.6         |           |           | 23.0-120  |          | 02/08/2018 19:36 | WG1071161 |  |
|                        |              |           |           |           |          |                  |           |  |

| Document No: J1-680-RGL-GRI-00001-00 |
|--------------------------------------|
| ACCOUNT:                             |
| GRI - Beaverton, OR                  |

### SAMPLE RESULTS - 27 L968449

Τс

Ss

Cn

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 82.9   |           | 1        | 02/12/2018 10:29 | WG1072603 |

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

|                               | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |
|-------------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|
| Analyte                       | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |
| Diesel Range Organics (DRO)   | U            |           | 1.59      | 4.83      | 1        | 02/09/2018 13:38 | WG1071154 |
| Residual Range Organics (RRO) | U            |           | 3.98      | 12.1      | 1        | 02/09/2018 13:38 | WG1071154 |
| (S) o-Terphenyl               | 82.9         |           |           | 18.0-148  |          | 02/09/2018 13:38 | WG1071154 |

|                       | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|-----------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte               | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene            | 0.00170      | J         | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Acenaphthene          | 0.0327       |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Acenaphthylene        | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Benzo(a)anthracene    | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Benzo(a)pyrene        | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Benzo(b)fluoranthene  | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Benzo(g,h,i)perylene  | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Benzo(k)fluoranthene  | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Chrysene              | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Dibenz(a,h)anthracene | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| luoranthene           | 0.00377      | J         | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| luorene               | 0.0109       |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| ndeno(1,2,3-cd)pyrene | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Naphthalene           | 0.0200       | J         | 0.00241   | 0.0241    | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Phenanthrene          | U            |           | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| Pyrene                | 0.00255      | J         | 0.000724  | 0.00724   | 1        | 02/08/2018 19:56 | WG1071161 |  |
| -Methylnaphthalene    | 0.00320      | J         | 0.00241   | 0.0241    | 1        | 02/08/2018 19:56 | WG1071161 |  |
| 2-Methylnaphthalene   | 0.00403      | J         | 0.00241   | 0.0241    | 1        | 02/08/2018 19:56 | WG1071161 |  |
| 2-Chloronaphthalene   | U            |           | 0.00241   | 0.0241    | 1        | 02/08/2018 19:56 | WG1071161 |  |
| (S) Nitrobenzene-d5   | 122          |           |           | 14.0-149  |          | 02/08/2018 19:56 | WG1071161 |  |
| (S) 2-Fluorobiphenyl  | 86.5         |           |           | 34.0-125  |          | 02/08/2018 19:56 | WG1071161 |  |
| (S) p-Terphenyl-d14   | 74.5         |           |           | 23.0-120  |          | 02/08/2018 19:56 | WG1071161 |  |

# Collected date/time: 02/01/18 15:20

### SAMPLE RESULTS - 28 L968449



Τс

Ss

# Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch     |
|--------------|--------|-----------|----------|------------------|-----------|
| Analyte      | %      |           |          | date / time      |           |
| Total Solids | 86.1   |           | 1        | 02/12/2018 10:29 | WG1072603 |

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

|                        | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|------------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte                | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene             | 0.0147       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Acenaphthene           | U            |           | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Acenaphthylene         | 0.0205       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Benzo(a)anthracene     | 0.0257       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Benzo(a)pyrene         | 0.0163       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Benzo(b)fluoranthene   | 0.0432       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Benzo(g,h,i)perylene   | 0.449        |           | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Benzo(k)fluoranthene   | 0.0201       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Chrysene               | U            |           | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Dibenz(a,h)anthracene  | U            |           | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Fluoranthene           | 0.0152       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Fluorene               | U            |           | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Indeno(1,2,3-cd)pyrene | 0.0224       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Naphthalene            | U            |           | 0.0465    | 0.465     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Phenanthrene           | 0.0150       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| Pyrene                 | 0.0199       | J         | 0.0139    | 0.139     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| 1-Methylnaphthalene    | U            |           | 0.0465    | 0.465     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| 2-Methylnaphthalene    | U            |           | 0.0465    | 0.465     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| 2-Chloronaphthalene    | U            |           | 0.0465    | 0.465     | 20       | 02/08/2018 20:38 | WG1071161 |  |
| (S) Nitrobenzene-d5    | 95.0         | <u>J7</u> |           | 14.0-149  |          | 02/08/2018 20:38 | WG1071161 |  |
| (S) 2-Fluorobiphenyl   | 82.0         | <u>J7</u> |           | 34.0-125  |          | 02/08/2018 20:38 | WG1071161 |  |
| (S) p-Terphenyl-d14    | 79.2         | <u>J7</u> |           | 23.0-120  |          | 02/08/2018 20:38 | WG1071161 |  |

#### Sample Narrative:

L968449-28 WG1071161: Cannot be analyzed at a lower dilution due to non-target matrix interference.

| Document No:    | J1-680-RGL-GRI-00001-00 |
|-----------------|-------------------------|
| ACCOUNT         | :                       |
| GRI - Beavertor | n, OR                   |

### Collected date/time: 02/01/18 16:05

#### SAMPLE RESULTS - 29 L968449



Τс

#### Total Solids by Method 2540 G-2011

|              | Result | Qualifier | Dilution | Analysis         | Batch            |
|--------------|--------|-----------|----------|------------------|------------------|
| Analyte      | %      |           |          | date / time      |                  |
| Total Solids | 82.0   |           | 1        | 02/12/2018 10:29 | <u>WG1072603</u> |

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

|                       | Result (dry) | Qualifier | MDL (dry) | RDL (dry) | Dilution | Analysis         | Batch     |  |
|-----------------------|--------------|-----------|-----------|-----------|----------|------------------|-----------|--|
| Analyte               | mg/kg        |           | mg/kg     | mg/kg     |          | date / time      |           |  |
| Anthracene            | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Acenaphthene          | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Acenaphthylene        | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Benzo(a)anthracene    | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Benzo(a)pyrene        | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Benzo(b)fluoranthene  | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Benzo(g,h,i)perylene  | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Benzo(k)fluoranthene  | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Chrysene              | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Dibenz(a,h)anthracene | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| luoranthene           | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| luorene               | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| ndeno(1,2,3-cd)pyrene | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Naphthalene           | U            |           | 0.00244   | 0.0244    | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Phenanthrene          | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| Pyrene                | U            |           | 0.000732  | 0.00732   | 1        | 02/08/2018 20:17 | WG1071161 |  |
| -Methylnaphthalene    | U            |           | 0.00244   | 0.0244    | 1        | 02/08/2018 20:17 | WG1071161 |  |
| 2-Methylnaphthalene   | U            |           | 0.00244   | 0.0244    | 1        | 02/08/2018 20:17 | WG1071161 |  |
| 2-Chloronaphthalene   | U            |           | 0.00244   | 0.0244    | 1        | 02/08/2018 20:17 | WG1071161 |  |
| (S) Nitrobenzene-d5   | 124          |           |           | 14.0-149  |          | 02/08/2018 20:17 | WG1071161 |  |
| (S) 2-Fluorobiphenyl  | 91.7         |           |           | 34.0-125  |          | 02/08/2018 20:17 | WG1071161 |  |
| (S) p-Terphenyl-d14   | 82.7         |           |           | 23.0-120  |          | 02/08/2018 20:17 | WG1071161 |  |

| Document No: J1-680-RGL-GRI-00001-00 |
|--------------------------------------|
| ACCOUNT:                             |
| GRI - Beaverton, OR                  |

Total Solids by Method 2540 G-2011

# QUALITY CONTROL SUMMARY

Тс

Ss

Cn

Sr

ິQc

GI

Â

Sc

PAGE: 48 of 81

#### Method Blank (MB)

| (MB) R3284523-1 02/06/18 14:43 |           |              |        |        |
|--------------------------------|-----------|--------------|--------|--------|
|                                | MB Result | MB Qualifier | MB MDL | MB RDL |
| Analyte                        | %         |              | %      | %      |
| Total Solids                   | 0.001     |              |        |        |

#### L967090-02 Original Sample (OS) • Duplicate (DUP)

| (OS) L967090-02 02/0 | )6/18 14:43 • (D | UP) R3284523-3  | 3 02/06/18 | 3 14:43 |               |                   |
|----------------------|------------------|-----------------|------------|---------|---------------|-------------------|
|                      | Original Re      | sult DUP Result | Dilution   | DUP RPD | DUP Qualifier | DUP RPD<br>Limits |
| Analyte              | %                | %               |            | %       |               | %                 |
| Total Solids         | 68.1             | 68.3            | 1          | 0       |               | 5                 |

#### Laboratory Control Sample (LCS)

| (LCS) R3284523-2 02/0 | 06/18 14:43  |            |          |             |               |
|-----------------------|--------------|------------|----------|-------------|---------------|
|                       | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte               | %            | %          | %        | %           |               |
| Total Solids          | 50.0         | 50.0       | 100      | 85-115      |               |

| Document No: J1-680-RGL-GRI-00001-00 | I         | Revision: 1 | Re             | issued for Use |
|--------------------------------------|-----------|-------------|----------------|----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PA             |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 48             |

Total Solids by Method 2540 G-2011

#### QUALITY CONTROL SUMMARY L968449-06,07,08,09,10,11,12,13

Cn

Sr

ິQc

GI

Â

Sc

PAGE: 49 of 81

#### Method Blank (MB)

| 1 |
|---|
| ( |
| 2 |
| T |
|   |
| 3 |
|   |

#### L968449-06 Original Sample (OS) • Duplicate (DUP)

| (OS) L968449-06 02/12/1 | 8 11:15 • (DUP) R | 3285819-3 02 | 2/12/18 11:1 | 5       |               |                   |
|-------------------------|-------------------|--------------|--------------|---------|---------------|-------------------|
|                         | Original Result   | DUP Result   | Dilution     | DUP RPD | DUP Qualifier | DUP RPD<br>Limits |
| Analyte                 | %                 | %            |              | %       |               | %                 |
| Total Solids            | 56.6              | 60.3         | 1            | 6       | J3            | 5                 |

#### Laboratory Control Sample (LCS)

| (LCS) R3285819-2 0 | 2/12/18 11:15 |            |          |             |               |
|--------------------|---------------|------------|----------|-------------|---------------|
|                    | Spike Amount  | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte            | %             | %          | %        | %           |               |
| Total Solids       | 50.0          | 50.0       | 100      | 85-115      |               |

| Document No: J1-680-RGL-GRI-00001-00 |           | Revision: 1 | R              | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PA              |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 49              |

Total Solids by Method 2540 G-2011

### QUALITY CONTROL SUMMARY

#### Method Blank (MB)

| (MB) R3285867-1 02 | 2/12/18 11:03 |              |        |        |
|--------------------|---------------|--------------|--------|--------|
|                    | MB Result     | MB Qualifier | MB MDL | MB RDL |
| Analyte            | %             |              | %      | %      |
| Total Solids       | 0.001         |              |        |        |

#### L968449-15 Original Sample (OS) • Duplicate (DUP)

| (OS) L968449-15 02/12/ | '18 11:03 • (DUP) F | 3285867-3 ( | 02/12/18 11: | 03      |               |                   |
|------------------------|---------------------|-------------|--------------|---------|---------------|-------------------|
|                        | Original Result     | DUP Result  | Dilution     | DUP RPD | DUP Qualifier | DUP RPD<br>Limits |
| Analyte                | %                   | %           |              | %       |               | %                 |
| Total Solids           | 83.7                | 84.4        | 1            | 1       |               | 5                 |

#### Laboratory Control Sample (LCS)

| (LCS) R3285867-2 02/12 | 2/18 11:03   |            |          |             |               |
|------------------------|--------------|------------|----------|-------------|---------------|
|                        | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte                | %            | %          | %        | %           |               |
| Total Solids           | 50.0         | 50.0       | 100      | 85-115      |               |

| Document No: J1-680-RGL-GRI-00001-00 | R         | Revision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 50 of 81        |

GI

⁺Cn

Sr

Â

Total Solids by Method 2540 G-2011

#### QUALITY CONTROL SUMMARY L968449-20,22,23,24

⁴Cn

Sr

ິQc

GI

Â

Sc

#### Method Blank (MB)

| noù Biarik (N   | /Ю)        |              |        |        |  |        |
|-----------------|------------|--------------|--------|--------|--|--------|
| R3285816-1 02/1 | 2/18 10:15 |              |        |        |  |        |
|                 | MB Result  | MB Qualifier | MB MDL | MB RDL |  | -<br>- |
| te              | %          |              | %      | %      |  |        |
| Solids          | 0.003      |              |        |        |  |        |
|                 |            |              |        |        |  |        |
|                 |            |              |        |        |  |        |

#### L968449-20 Original Sample (OS) • Duplicate (DUP)

| (OS) L968449-20 02/12/1 | 18 10:15 • (DUP) F | R3285816-3 ( | )2/12/18 10 | <i>i</i> :15 |               |                   |
|-------------------------|--------------------|--------------|-------------|--------------|---------------|-------------------|
|                         | Original Result    | DUP Result   | Dilution    | DUP RPD      | DUP Qualifier | DUP RPD<br>Limits |
| Analyte                 | %                  | %            |             | %            |               | %                 |
| Total Solids            | 83.4               | 83.4         | 1           | 0            |               | 5                 |

#### Laboratory Control Sample (LCS)

| (LCS) R3285816-2 02/12 | /18 10:15    |            |          |             |               |
|------------------------|--------------|------------|----------|-------------|---------------|
|                        | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte                | %            | %          | %        | %           |               |
| Total Solids           | 50.0         | 50.0       | 100      | 85-115      |               |

| Document No: J1-680-RGL-GRI-00001-00 | Ā         | Revision: 1 | R              | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 51 of 81        |

Total Solids by Method 2540 G-2011

### QUALITY CONTROL SUMMARY

#### Method Blank (MB)

| · · · ·               |            |              |        |        |
|-----------------------|------------|--------------|--------|--------|
| (MB) R3285818-1 02/12 | 2/18 10:29 |              |        |        |
|                       | MB Result  | MB Qualifier | MB MDL | MB RDL |
| Analyte               | %          |              | %      | %      |
| Total Solids          | 0.002      |              |        |        |

#### L968449-26 Original Sample (OS) • Duplicate (DUP)

| (OS) L968449-26 02/12/ | 18 10:29 • (DUP | ) R3285818-3 | 02/12/18 10 | ):29    |               |                   |
|------------------------|-----------------|--------------|-------------|---------|---------------|-------------------|
|                        | Original Resul  | t DUP Result | Dilution    | DUP RPD | DUP Qualifier | DUP RPD<br>Limits |
| Analyte                | %               | %            |             | %       |               | %                 |
| Total Solids           | 83.8            | 84.9         | 1           | 1       |               | 5                 |

#### Laboratory Control Sample (LCS)

| (LCS) R3285818-2 02/12 | 2/18 10:29   |            |          |             |               |
|------------------------|--------------|------------|----------|-------------|---------------|
|                        | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte                | %            | %          | %        | %           |               |
| Total Solids           | 50.0         | 50.0       | 100      | 85-115      |               |

| Document No: J1-680-RGL-GRI-00001-00 | R         | Revision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 52 of 81        |

⁴Cn

Sr

Â

Mercury by Method 7470A

### QUALITY CONTROL SUMMARY

Τс

Ss

Cn

Sr

Qc

GI

Â

Sc

#### Method Blank (MB)

| (MB) R3285187-1 02/ | 09/18 07:35 |              |        |        |
|---------------------|-------------|--------------|--------|--------|
|                     | MB Result   | MB Qualifier | MB MDL | MB RDL |
| Analyte             | ug/l        |              | ug/l   | ug/l   |
| Mercury             | U           |              | 0.0490 | 0.200  |

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

|   | (LCS) R3285187-2 02/09/18 07:38 • (LCSD) R3285187-5 02/09/18 09:53 |      |      |      |      |     |        |  |           |      |            |  |
|---|--|------|------|------|------|-----|--------|--|-----------|------|------------|--|
| Spike Amount LCS Result LCSD Result LCS Rec. LCSD Rec. Rec. Limits LCS Qualifier LCSD G |  |      |      |      |      |     |        |  |           |      | RPD Limits |  |
|   | Analyte  | ug/l | ug/l | ug/l | %    | %   | %      |  |           | %    | %          |  |
|   | Mercury  | 3.00 | 2.44 | 3.01 | 81.2 | 100 | 80-120 |  | <u>J3</u> | 21.2 | 20         |  |

#### L968449-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968449-16 02/09   | (OS) L968449-16 02/09/18 07:42 • (MS) R3285187-3 02/09/18 07:45 • (MSD) R3285187-4 02/09/18 07:47 |      |      |      |      |      |   |        |  |            |      |    |
|---|---|------|------|------|------|------|---|--------|--|------------|------|----|
| Spike Amount Original Result MS Result MSD Result MS Rec. MSD Rec. Dilution Rec. Limits <u>MS Qualifier</u> MSD Qualifier RPD RPD L |   |      |      |      |      |      |   |        |  | RPD Limits |      |    |
| Analyte   | ug/l  | ug/l | ug/l | ug/l | %    | %    |   | %      |  |            | %    | %  |
| Mercury   | 3.00  | U    | 2.46 | 2.28 | 82.1 | 76.1 | 1 | 75-125 |  |            | 7.63 | 20 |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | Re             | issued for Use |
|--------------------------------------|-----------|------------|----------------|----------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:          |
| GRI - Beaverton, OR                  | 5764-1195 | L968449    | 02/14/18 09:57 | 53 of 81       |

Mercury by Method 7471A

# QUALITY CONTROL SUMMARY

Тс

Ss

Cn

Sr

Qc

GI

Â

Sc

#### Method Blank (MB)

| (MB) R3285854-1 02/13/18 08:22 |           |              |        |        |  |  |  |  |
|--------------------------------|-----------|--------------|--------|--------|--|--|--|--|
|                                | MB Result | MB Qualifier | MB MDL | MB RDL |  |  |  |  |
| Analyte                        | mg/kg     |              | mg/kg  | mg/kg  |  |  |  |  |
| Mercury                        | 0.00343   | J            | 0.0028 | 0.0200 |  |  |  |  |

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

| (LCS) R3285854-2 02/13/18 08:25 • (LCSD) R3285854-3 02/13/18 08:27 |              |            |             |          |           |             |               |                |      |            |  |
|--|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|--|
|  | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |  |
| Analyte  | mg/kg        | mg/kg      | mg/kg       | %        | %         | %           |               |                | %    | %          |  |
| Mercury  | 0.300        | 0.264      | 0.252       | 87.9     | 84.1      | 80-120      |               |                | 4.46 | 20         |  |

#### L968449-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968449-22 02/13/18 08:30 • (MS) R3285854-4 02/13/18 08:32 • (MSD) R3285854-5 02/13/18 08:35 |                       |                          |                 |                     |         |          |          |             |              |               |       |            |
|---|-----------------------|--------------------------|-----------------|---------------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|
|   | Spike Amount<br>(dry) | Original Result<br>(dry) | MS Result (dry) | MSD Result<br>(dry) | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
| Analyte   | mg/kg                 | mg/kg                    | mg/kg           | mg/kg               | %       | %        |          | %           |              |               | %     | %          |
| Mercury   | 0.363                 | 0.00807                  | 0.325           | 0.323               | 87.2    | 86.7     | 1        | 75-125      |              |               | 0.531 | 20         |

| Document No: J1-680-RGL-GRI-00001-00 | R         | Revision: 1 | Re             | Reissued for Use |  |  |
|--------------------------------------|-----------|-------------|----------------|------------------|--|--|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:            |  |  |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 54 of 81         |  |  |

Metals (ICP) by Method 6010B

#### QUALITY CONTROL SUMMARY L968449-02,03,04,16,17

#### Method Blank (MB)

| (MB) R3285110-1 | 02/08/18 21:36 |
|-----------------|----------------|
|                 | MP Pocult      |

| ()        |           |              |        |        |
|-----------|-----------|--------------|--------|--------|
|           | MB Result | MB Qualifier | MB MDL | MB RDL |
| Analyte   | ug/l      |              | ug/l   | ug/l   |
| Beryllium | U         |              | 0.700  | 2.00   |
| Cadmium   | U         |              | 0.700  | 2.00   |
| Chromium  | U         |              | 1.40   | 10.0   |
| Copper    | U         |              | 5.30   | 10.0   |
| Nickel    | U         |              | 4.90   | 10.0   |
| Selenium  | U         |              | 7.40   | 10.0   |
| Silver    | U         |              | 2.80   | 5.00   |
| Zinc      | U         |              | 5.90   | 50.0   |
|           |           |              |        |        |

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

| (LCS) R3285110-2 02/08/18 | 8 21:39 • (LCSE | ) R3285110-3 | 02/08/18 21:42 |          |           |             |               |                |        |            |
|---------------------------|-----------------|--------------|----------------|----------|-----------|-------------|---------------|----------------|--------|------------|
|                           | Spike Amount    | LCS Result   | LCSD Result    | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD    | RPD Limits |
| Analyte                   | ug/l            | ug/l         | ug/l           | %        | %         | %           |               |                | %      | %          |
| Beryllium                 | 1000            | 994          | 994            | 99.4     | 99.4      | 80-120      |               |                | 0.0055 | 20         |
| Cadmium                   | 1000            | 1030         | 1020           | 103      | 102       | 80-120      |               |                | 0.367  | 20         |
| Chromium                  | 1000            | 983          | 972            | 98.3     | 97.2      | 80-120      |               |                | 1.11   | 20         |
| Copper                    | 1000            | 980          | 970            | 98       | 97        | 80-120      |               |                | 1.05   | 20         |
| Nickel                    | 1000            | 979          | 981            | 97.9     | 98.1      | 80-120      |               |                | 0.253  | 20         |
| Selenium                  | 1000            | 1000         | 1010           | 100      | 101       | 80-120      |               |                | 0.842  | 20         |
| Silver                    | 200             | 183          | 182            | 91.6     | 91        | 80-120      |               |                | 0.653  | 20         |
| Zinc                      | 1000            | 1050         | 1040           | 105      | 104       | 80-120      |               |                | 0.526  | 20         |

#### L968592-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968592-01 02/08/18 | 8 21:46 • (MS) R | 3285110-5 02    | /08/18 21:52 • ( | MSD) R3285110 | 0-6 02/08/18 2 | 21:55    |          |             |              |               |       |            |
|--------------------------|------------------|-----------------|------------------|---------------|----------------|----------|----------|-------------|--------------|---------------|-------|------------|
|                          | Spike Amount     | Original Result | MS Result        | MSD Result    | MS Rec.        | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |
| Analyte                  | ug/l             | ug/l            | ug/l             | ug/l          | %              | %        |          | %           |              |               | %     | %          |
| Beryllium                | 1000             | ND              | 1020             | 1010          | 102            | 101      | 1        | 75-125      |              |               | 0.632 | 20         |
| Cadmium                  | 1000             | ND              | 1060             | 1050          | 106            | 105      | 1        | 75-125      |              |               | 0.269 | 20         |
| Chromium                 | 1000             | ND              | 1010             | 988           | 101            | 98.8     | 1        | 75-125      |              |               | 2.01  | 20         |
| Copper                   | 1000             | 17.2            | 1030             | 1010          | 101            | 99       | 1        | 75-125      |              |               | 1.79  | 20         |
| Nickel                   | 1000             | ND              | 998              | 989           | 99.8           | 98.9     | 1        | 75-125      |              |               | 0.812 | 20         |
| Selenium                 | 1000             | ND              | 1050             | 1030          | 105            | 103      | 1        | 75-125      |              |               | 1.04  | 20         |
| Silver                   | 200              | ND              | 187              | 183           | 93.4           | 91.6     | 1        | 75-125      |              |               | 1.97  | 20         |
| Zinc                     | 1000             | ND              | 1080             | 1080          | 105            | 106      | 1        | 75-125      |              |               | 0.158 | 20         |

| Document No: J1-680-RGL-GRI-00001-00 |           | Revision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 55 of 81        |

Тс

Ss

Cn

Sr

Qc

GI

A

°Sc

Metals (ICP) by Method 6010B

# QUALITY CONTROL SUMMARY

| (MB) R3286110-1 02 | 2/13/18 19:22 |              |        |        |
|--------------------|---------------|--------------|--------|--------|
|                    | MB Result     | MB Qualifier | MB MDL | MB RDL |
| Analyte            | mg/kg         |              | mg/kg  | mg/kg  |
| Antimony           | U             |              | 0.75   | 2.00   |
| Arsenic            | U             |              | 0.65   | 2.00   |
| Beryllium          | U             |              | 0.07   | 0.200  |
| Cadmium            | U             |              | 0.07   | 0.500  |
| Chromium           | U             |              | 0.14   | 1.00   |
| Copper             | U             |              | 0.53   | 2.00   |
| Lead               | U             |              | 0.19   | 0.500  |
| Nickel             | U             |              | 0.49   | 2.00   |
| Selenium           | U             |              | 0.74   | 2.00   |
| Silver             | U             |              | 0.28   | 1.00   |
| Thallium           | U             |              | 0.65   | 2.00   |
| Zinc               | U             |              | 0.59   | 5.00   |
|                    |               |              |        |        |

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

| (LCS) R3286110-2 02/13/ | LCS) R3286110-2 02/13/18 19:25 • (LCSD) R3286110-3 02/13/18 19:28 |            |             |          |           |             |               |                |      |            |  |  |  |  |
|-------------------------|---|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|--|--|--|--|
|                         | Spike Amount  | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |  |  |  |  |
| Analyte                 | mg/kg   | mg/kg      | mg/kg       | %        | %         | %           |               |                | %    | %          |  |  |  |  |
| Antimony                | 100   | 98.8       | 101         | 98.8     | 101       | 80-120      |               |                | 2.33 | 20         |  |  |  |  |
| Arsenic                 | 100   | 95.2       | 96.8        | 95.2     | 96.8      | 80-120      |               |                | 1.73 | 20         |  |  |  |  |
| Beryllium               | 100   | 99.8       | 102         | 99.8     | 102       | 80-120      |               |                | 2.19 | 20         |  |  |  |  |
| Cadmium                 | 100   | 97.8       | 99.6        | 97.8     | 99.6      | 80-120      |               |                | 1.75 | 20         |  |  |  |  |
| Chromium                | 100   | 100        | 103         | 100      | 103       | 80-120      |               |                | 2.47 | 20         |  |  |  |  |
| Copper                  | 100   | 99.5       | 101         | 99.5     | 101       | 80-120      |               |                | 1.56 | 20         |  |  |  |  |
| Lead                    | 100   | 100        | 102         | 100      | 102       | 80-120      |               |                | 1.93 | 20         |  |  |  |  |
| Nickel                  | 100   | 100        | 102         | 100      | 102       | 80-120      |               |                | 1.68 | 20         |  |  |  |  |
| Selenium                | 100   | 95.8       | 97.3        | 95.8     | 97.3      | 80-120      |               |                | 1.57 | 20         |  |  |  |  |
| Silver                  | 20.0  | 19.5       | 19.9        | 97.5     | 99.4      | 80-120      |               |                | 1.98 | 20         |  |  |  |  |
| Thallium                | 100   | 97.8       | 99.8        | 97.8     | 99.8      | 80-120      |               |                | 2.05 | 20         |  |  |  |  |
| Zinc                    | 100   | 98.7       | 101         | 98.7     | 101       | 80-120      |               |                | 1.88 | 20         |  |  |  |  |
|                         |   |            |             |          |           |             |               |                |      |            |  |  |  |  |

#### L968899-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968899-01 C | DS) L968899-01 02/13/18 19:31 • (MS) R3286110-6 02/13/18 19:41 • (MSD) R3286110-7 02/13/18 19:44 |                 |           |            |         |           |          |             |              |               |       |                |       |
|-------------------|--|-----------------|-----------|------------|---------|-----------|----------|-------------|--------------|---------------|-------|----------------|-------|
|                   | Spike Amount   | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec.  | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits     |       |
| Analyte           | mg/kg  | mg/kg           | mg/kg     | mg/kg      | %       | %         |          | %           |              |               | %     | %              |       |
| Antimony          | 100  | 0.828           | 59.3      | 63.7       | 58.5    | 62.9      | 1        | 75-125      | <u>J6</u>    | <u>J6</u>     | 7.21  | 20             |       |
| Arsenic           | 100  | 0.698           | 94.6      | 101        | 93.9    | 99.9      | 1        | 75-125      |              |               | 6.09  | 20             |       |
| Beryllium         | 100  | 0.325           | 94.1      | 99.3       | 93.8    | 99        | 1        | 75-125      |              |               | 5.41  | 20             |       |
| Doc               | cument No: J1-680-RC   | GL-GRI-00001-0  | 00        |            |         | Revision: | 1        |             |              |               |       | Reissued for U | se    |
|                   | ACCOUNT:   |                 |           | PRO        | JECT:   |           |          | SDG:        |              | DATE/         | TIME: |                | PAGE: |
|                   | GRI - Beaverton, OR  |                 | 5764-1195 |            |         | L968449   |          |             | 02/14/18     | 8 09:57       |       | 56 of 81       |       |



<sup>4</sup>Cn <sup>5</sup>Sr

Тс

Ss

#### Metals (ICP) by Method 6010B

#### QUALITY CONTROL SUMMARY L968449-01,05,22

Тс

Ss

Cn

Sr

Qc

GI

Â

Sc

#### L968899-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968899-01 02/13/18 | DS) L968899-01 02/13/18 19:31 • (MS) R3286110-6 02/13/18 19:41 • (MSD) R3286110-7 02/13/18 19:44 |                 |           |            |         |          |          |             |              |               |        |            |  |
|--------------------------|--|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|--------|------------|--|
|                          | Spike Amount   | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD    | RPD Limits |  |
| Analyte                  | mg/kg  | mg/kg           | mg/kg     | mg/kg      | %       | %        |          | %           |              |               | %      | %          |  |
| Cadmium                  | 100  | 0.0972          | 97.8      | 103        | 97.7    | 103      | 1        | 75-125      |              |               | 5.28   | 20         |  |
| Chromium                 | 100  | 45.3            | 145       | 144        | 99.8    | 98.3     | 1        | 75-125      |              |               | 1.03   | 20         |  |
| Copper                   | 100  | 20.8            | 120       | 120        | 98.7    | 99.4     | 1        | 75-125      |              |               | 0.541  | 20         |  |
| Lead                     | 100  | 2.96            | 103       | 107        | 99.8    | 104      | 1        | 75-125      |              |               | 4.07   | 20         |  |
| Nickel                   | 100  | 49.5            | 156       | 149        | 107     | 99.2     | 1        | 75-125      |              |               | 4.82   | 20         |  |
| Selenium                 | 100  | U               | 95.1      | 102        | 95.1    | 102      | 1        | 75-125      |              |               | 6.96   | 20         |  |
| Silver                   | 20.0   | U               | 20.3      | 21.3       | 101     | 106      | 1        | 75-125      |              |               | 4.63   | 20         |  |
| Thallium                 | 100  | U               | 90.4      | 94.8       | 90.4    | 94.8     | 1        | 75-125      |              |               | 4.75   | 20         |  |
| Zinc                     | 100  | 35.4            | 126       | 126        | 90.6    | 90.5     | 1        | 75-125      |              |               | 0.0581 | 20         |  |
|                          |  |                 |           |            |         |          |          |             |              |               |        |            |  |

| Document No: J1-680-RGL-GRI-00001-00 |           | Revision: 1 | F              | Reissued for Use |
|--------------------------------------|-----------|-------------|----------------|------------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:            |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 57 of 81         |

Metals (ICPMS) by Method 6020

#### QUALITY CONTROL SUMMARY L968449-02,03,04

#### Method Blank (MB)

(MB) R3285060-1 02/08/18 15:54

|          | MB Result | MB Qualifier | MB MDL | MB RDL |  |  |
|----------|-----------|--------------|--------|--------|--|--|
| Analyte  | ug/l      |              | ug/l   | ug/l   |  |  |
| Antimony | U         |              | 0.754  | 2.00   |  |  |
| Arsenic  | U         |              | 0.250  | 2.00   |  |  |
| Lead     | U         |              | 0.240  | 2.00   |  |  |
| Thallium | U         |              | 0.190  | 2.00   |  |  |
|          |           |              |        |        |  |  |

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

| (LCS) R3285060-2 02/08/18 15:57 • (LCSD) R3285060-3 02/08/18 16:01 |              |            |             |          |           |             |               |                |       |            |  |  |  |
|--|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|-------|------------|--|--|--|
|  | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |  |  |  |
| Analyte  | ug/l         | ug/l       | ug/l        | %        | %         | %           |               |                | %     | %          |  |  |  |
| Antimony   | 50.0         | 46.4       | 44.2        | 92.8     | 88.4      | 80-120      |               |                | 4.92  | 20         |  |  |  |
| Arsenic  | 50.0         | 47.6       | 47.4        | 95.3     | 94.8      | 80-120      |               |                | 0.482 | 20         |  |  |  |
| Lead   | 50.0         | 48.7       | 48.5        | 97.4     | 97        | 80-120      |               |                | 0.41  | 20         |  |  |  |
| Thallium   | 50.0         | 48.7       | 47.9        | 97.4     | 95.7      | 80-120      |               |                | 1.7   | 20         |  |  |  |

#### L968393-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968393-14 02/08/18 16:05 • (MS) R3285060-5 02/08/18 16:13 • (MSD) R3285060-6 02/08/18 16:16 |              |                 |           |            |         |          |          |             |              |               |       |            |  |
|---|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|--|
|   | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |  |
| Analyte   | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |  |
| Antimony  | 50.0         | ND              | 45.4      | 47.3       | 90.8    | 94.6     | 1        | 75-125      |              |               | 4.13  | 20         |  |
| Arsenic   | 50.0         | ND              | 48.2      | 47.9       | 94.9    | 94.3     | 1        | 75-125      |              |               | 0.598 | 20         |  |
| Lead  | 50.0         | ND              | 48.4      | 48.8       | 96.9    | 97.5     | 1        | 75-125      |              |               | 0.707 | 20         |  |
| Thallium  | 50.0         | ND              | 48.3      | 48.3       | 96.6    | 96.7     | 1        | 75-125      |              |               | 0.025 | 20         |  |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | Re             | issued for Use |
|--------------------------------------|-----------|------------|----------------|----------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:          |
| GRI - Beaverton, OR                  | 5764-1195 | L968449    | 02/14/18 09:57 | 58 of 81       |

Ср

Sr

Qc

GI

Â

Sc

Metals (ICPMS) by Method 6020

### QUALITY CONTROL SUMMARY

#### Method Blank (MB)

(MB) R3285313-1 02/09/18 12:06

| (1010) 1(3203313-1 | MB Result | MB Qualifier | MB MDL | MB RDL |   |
|--------------------|-----------|--------------|--------|--------|---|
|                    |           |              |        |        | 2 |
| Analyte            | ug/l      |              | ug/l   | ug/l   |   |
| Antimony           | U         |              | 0.754  | 2.00   |   |
| Arsenic            | U         |              | 0.250  | 2.00   | 1 |
| Lead               | 0.699     | J            | 0.240  | 2.00   |   |
| Thallium           | 0.290     | J            | 0.190  | 2.00   | Ē |
|                    |           |              |        |        |   |

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

| (LCS) R3285313-2 02/09/18 12:10 • (LCSD) R3285313-3 02/09/18 12:14 |              |            |             |          |           |             |               |                |        |            |  |  |  |
|--|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|--------|------------|--|--|--|
|  | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD    | RPD Limits |  |  |  |
| Analyte  | ug/l         | ug/l       | ug/l        | %        | %         | %           |               |                | %      | %          |  |  |  |
| Antimony   | 50.0         | 53.9       | 53.1        | 108      | 106       | 80-120      |               |                | 1.57   | 20         |  |  |  |
| Arsenic  | 50.0         | 53.0       | 53.0        | 106      | 106       | 80-120      |               |                | 0.0793 | 20         |  |  |  |
| Lead   | 50.0         | 54.2       | 52.1        | 108      | 104       | 80-120      |               |                | 3.87   | 20         |  |  |  |
| Thallium   | 50.0         | 52.6       | 52.4        | 105      | 105       | 80-120      |               |                | 0.375  | 20         |  |  |  |

#### L968449-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968449-16 02/09/18 12:17 • (MS) R3285313-5 02/09/18 12:25 • (MSD) R3285313-6 02/09/18 12:29 |              |                 |           |            |         |          |          |             |              |               |       |            |  |
|---|--------------|-----------------|-----------|------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|--|
|   | Spike Amount | Original Result | MS Result | MSD Result | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits |  |
| Analyte   | ug/l         | ug/l            | ug/l      | ug/l       | %       | %        |          | %           |              |               | %     | %          |  |
| Antimony  | 50.0         | 0.828           | 52.7      | 53.4       | 104     | 105      | 1        | 75-125      |              |               | 1.41  | 20         |  |
| Arsenic   | 50.0         | 3.01            | 54.7      | 55.9       | 103     | 106      | 1        | 75-125      |              |               | 2.04  | 20         |  |
| Lead  | 50.0         | 1.84            | 52.5      | 52.8       | 101     | 102      | 1        | 75-125      |              |               | 0.602 | 20         |  |
| Thallium  | 50.0         | 0.280           | 50.9      | 52.3       | 101     | 104      | 1        | 75-125      |              |               | 2.69  | 20         |  |

| Document No: J1-680-RGL-GRI-00001-00 | F         | Revision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 59 of 81        |

E. 🟅

Ср

Sr

Qc

GI

Â

Sc

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

# QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

#### Method Blank (MB)

| (MB) R3285308-3 02/08/      | 18 21:12      |               |          |           |             |         |                |                  | Cp              |
|-----------------------------|---------------|---------------|----------|-----------|-------------|---------|----------------|------------------|-----------------|
|                             | MB Result     | MB Qualifier  | MB MDL   | MB RDL    |             |         |                |                  | 2               |
| Analyte                     | mg/kg         |               | mg/kg    | mg/kg     |             |         |                |                  | Tc              |
| Acetone                     | U             |               | 0.0100   | 0.0500    |             |         |                |                  |                 |
| Acrylonitrile               | U             |               | 0.00179  | 0.0100    |             |         |                |                  | <sup>3</sup> Ss |
| Benzene                     | U             |               | 0.000270 | 0.00100   |             |         |                |                  | 53              |
| Bromobenzene                | U             |               | 0.000284 | 0.00100   |             |         |                |                  | 4               |
| Bromodichloromethane        | U             |               | 0.000254 | 0.00100   |             |         |                |                  | Cr              |
| Bromoform                   | U             |               | 0.000424 | 0.00100   |             |         |                |                  |                 |
| Bromomethane                | U             |               | 0.00134  | 0.00500   |             |         |                |                  | ⁵Sr             |
| n-Butylbenzene              | U             |               | 0.000258 | 0.00100   |             |         |                |                  |                 |
| sec-Butylbenzene            | U             |               | 0.000201 | 0.00100   |             |         |                |                  | 6               |
| tert-Butylbenzene           | U             |               | 0.000206 | 0.00100   |             |         |                |                  | ČQC             |
| Carbon tetrachloride        | U             |               | 0.000328 | 0.00100   |             |         |                |                  |                 |
| Chlorobenzene               | U             |               | 0.000212 | 0.00100   |             |         |                |                  | <sup>7</sup> Gl |
| Chlorodibromomethane        | U             |               | 0.000373 | 0.00100   |             |         |                |                  | 01              |
| Chloroethane                | U             |               | 0.000946 | 0.00500   |             |         |                |                  | 8               |
| Chloroform                  | U             |               | 0.000229 | 0.00500   |             |         |                |                  | AI              |
| Chloromethane               | U             |               | 0.000375 | 0.00250   |             |         |                |                  |                 |
| 2-Chlorotoluene             | U             |               | 0.000301 | 0.00100   |             |         |                |                  | <sup>9</sup> Sc |
| 4-Chlorotoluene             | U             |               | 0.000240 | 0.00100   |             |         |                |                  | 00              |
| 1,2-Dibromo-3-Chloropropane | U             |               | 0.00105  | 0.00500   |             |         |                |                  |                 |
| 1,2-Dibromoethane           | U             |               | 0.000343 | 0.00100   |             |         |                |                  |                 |
| Dibromomethane              | U             |               | 0.000382 | 0.00100   |             |         |                |                  |                 |
| 1,2-Dichlorobenzene         | U             |               | 0.000305 | 0.00100   |             |         |                |                  |                 |
| 1,3-Dichlorobenzene         | U             |               | 0.000239 | 0.00100   |             |         |                |                  |                 |
| 1,4-Dichlorobenzene         | U             |               | 0.000226 | 0.00100   |             |         |                |                  |                 |
| Dichlorodifluoromethane     | U             |               | 0.000713 | 0.00500   |             |         |                |                  |                 |
| 1,1-Dichloroethane          | U             |               | 0.000199 | 0.00100   |             |         |                |                  |                 |
| 1,2-Dichloroethane          | U             |               | 0.000265 | 0.00100   |             |         |                |                  |                 |
| 1,1-Dichloroethene          | U             |               | 0.000303 | 0.00100   |             |         |                |                  |                 |
| cis-1,2-Dichloroethene      | U             |               | 0.000235 | 0.00100   |             |         |                |                  |                 |
| trans-1,2-Dichloroethene    | U             |               | 0.000264 | 0.00100   |             |         |                |                  |                 |
| 1,2-Dichloropropane         | U             |               | 0.000358 | 0.00100   |             |         |                |                  |                 |
| 1,1-Dichloropropene         | U             |               | 0.000317 | 0.00100   |             |         |                |                  |                 |
| 1,3-Dichloropropane         | U             |               | 0.000207 | 0.00100   |             |         |                |                  |                 |
| cis-1,3-Dichloropropene     | U             |               | 0.000262 | 0.00100   |             |         |                |                  |                 |
| trans-1,3-Dichloropropene   | U             |               | 0.000267 | 0.00100   |             |         |                |                  |                 |
| 2,2-Dichloropropane         | U             |               | 0.000279 | 0.00100   |             |         |                |                  |                 |
| Di-isopropyl ether          | U             |               | 0.000248 | 0.00100   |             |         |                |                  |                 |
| Ethylbenzene                | U             |               | 0.000297 | 0.00100   |             |         |                |                  |                 |
| Hexachloro-1,3-butadiene    | U             |               | 0.000342 | 0.00100   |             |         |                |                  |                 |
| Isopropylbenzene            | U             |               | 0.000243 | 0.00100   |             |         |                |                  |                 |
| Document                    | No: J1-680-F  | RGL-GRI-00001 | -00      |           | Revision: 1 |         |                | Reissued for Use |                 |
|                             | CCOUNT:       |               |          | PROJECT:  |             | SDG:    | DATE/TIME:     | P/               | AGE:            |
| GRI - E                     | Beaverton, OR |               |          | 5764-1195 |             | L968449 | 02/14/18 09:57 | 60               | of 81           |

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

# QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

#### Method Blank (MB)

| (MB) R3285308-3 02/08/         | 18 21:12  |              |          |          |                 |
|--------------------------------|-----------|--------------|----------|----------|-----------------|
|                                | MB Result | MB Qualifier | MB MDL   | MB RDL   | 2               |
| Analyte                        | mg/kg     |              | mg/kg    | mg/kg    | T(              |
| p-Isopropyltoluene             | U         |              | 0.000204 | 0.00100  |                 |
| 2-Butanone (MEK)               | U         |              | 0.00468  | 0.0100   | <sup>3</sup> Ss |
| Methylene Chloride             | U         |              | 0.00100  | 0.00500  |                 |
| 4-Methyl-2-pentanone (MIBK)    | U         |              | 0.00188  | 0.0100   | 4               |
| Methyl tert-butyl ether        | U         |              | 0.000212 | 0.00100  | C               |
| Naphthalene                    | U         |              | 0.00100  | 0.00500  |                 |
| n-Propylbenzene                | U         |              | 0.000206 | 0.00100  | ⁵S              |
| Styrene                        | U         |              | 0.000234 | 0.00100  |                 |
| 1,1,1,2-Tetrachloroethane      | U         |              | 0.000264 | 0.00100  | 6               |
| 1,1,2,2-Tetrachloroethane      | U         |              | 0.000365 | 0.00100  | ິດ              |
| Tetrachloroethene              | U         |              | 0.000276 | 0.00100  |                 |
| Toluene                        | U         |              | 0.000434 | 0.00500  | <sup>7</sup> G  |
| 1,1,2-Trichlorotrifluoroethane | U         |              | 0.000365 | 0.00100  | Ľ               |
| 1,2,3-Trichlorobenzene         | U         |              | 0.000306 | 0.00100  | 8               |
| 1,2,4-Trichlorobenzene         | U         |              | 0.000388 | 0.00100  | Α               |
| 1,1,1-Trichloroethane          | U         |              | 0.000286 | 0.00100  |                 |
| 1,1,2-Trichloroethane          | U         |              | 0.000277 | 0.00100  | °S              |
| Trichloroethene                | U         |              | 0.000279 | 0.00100  | Ľ               |
| Trichlorofluoromethane         | U         |              | 0.000382 | 0.00500  |                 |
| 1,2,3-Trichloropropane         | U         |              | 0.000741 | 0.00250  |                 |
| 1,2,3-Trimethylbenzene         | U         |              | 0.000287 | 0.00100  |                 |
| 1,2,4-Trimethylbenzene         | U         |              | 0.000211 | 0.00100  |                 |
| 1,3,5-Trimethylbenzene         | U         |              | 0.000266 | 0.00100  |                 |
| Vinyl chloride                 | U         |              | 0.000291 | 0.00100  |                 |
| Xylenes, Total                 | U         |              | 0.000698 | 0.00300  |                 |
| (S) Toluene-d8                 | 103       |              |          | 80.0-120 |                 |
| (S) Dibromofluoromethane       | 99.6      |              |          | 74.0-131 |                 |
| (S) 4-Bromofluorobenzene       | 102       |              |          | 64.0-132 |                 |

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

| (LCS) R3285308-1 02/0 | )8/18 20:12 • (LCS | D) R3285308  | -2 02/08/18 20 | ):32     |           |             |               |                |      |                |                  |
|-----------------------|--------------------|--------------|----------------|----------|-----------|-------------|---------------|----------------|------|----------------|------------------|
|                       | Spike Amount       | LCS Result   | LCSD Result    | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits     |                  |
| Analyte               | mg/kg              | mg/kg        | mg/kg          | %        | %         | %           |               |                | %    | %              |                  |
| Acetone               | 0.125              | 0.114        | 0.107          | 91.5     | 85.7      | 11.0-160    |               |                | 6.54 | 23             |                  |
| Acrylonitrile         | 0.125              | 0.142        | 0.132          | 113      | 106       | 61.0-143    |               |                | 6.78 | 20             |                  |
| Benzene               | 0.0250             | 0.0256       | 0.0251         | 102      | 100       | 71.0-124    |               |                | 1.85 | 20             |                  |
| Bromobenzene          | 0.0250             | 0.0245       | 0.0249         | 98.1     | 99.6      | 78.0-120    |               |                | 1.53 | 20             |                  |
| Bromodichloromethane  | 0.0250             | 0.0251       | 0.0254         | 100      | 102       | 75.0-120    |               |                | 1.33 | 20             |                  |
| Docume                | ent No: J1-680-R   | GL-GRI-00001 | -00            |          |           | Revision:   | 1             |                |      |                | Reissued for Use |
|                       | ACCOUNT:           |              |                | PRC      | JECT:     |             | SDG:          |                |      | DATE/TIME:     | PAGE:            |
| GRI                   | - Beaverton, OR    |              |                | 576      | 4-1195    |             | L96844        | 19             |      | 02/14/18 09:57 | 61 of 81         |

ONE LAB. NATIONWIDE.

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

| (LCS) R3285308-1 02/08/     |               |        | -2 02/08/18 20 |          |           |             |               |                |        |            |
|-----------------------------|---------------|--------|----------------|----------|-----------|-------------|---------------|----------------|--------|------------|
|                             | Spike Amount  |        | LCSD Result    | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD    | RPD Limits |
| Analyte                     | mg/kg         | mg/kg  | mg/kg          | %        | %         | %           |               |                | %      | %          |
| Bromoform                   | 0.0250        | 0.0268 | 0.0271         | 107      | 109       | 65.0-133    |               |                | 1.40   | 20         |
| Bromomethane                | 0.0250        | 0.0243 | 0.0238         | 97.1     | 95.3      | 26.0-160    |               |                | 1.89   | 20         |
| n-Butylbenzene              | 0.0250        | 0.0261 | 0.0255         | 104      | 102       | 73.0-126    |               |                | 2.37   | 20         |
| sec-Butylbenzene            | 0.0250        | 0.0272 | 0.0265         | 109      | 106       | 75.0-121    |               |                | 2.67   | 20         |
| tert-Butylbenzene           | 0.0250        | 0.0263 | 0.0262         | 105      | 105       | 74.0-122    |               |                | 0.355  | 20         |
| Carbon tetrachloride        | 0.0250        | 0.0265 | 0.0231         | 106      | 92.4      | 66.0-123    |               |                | 13.5   | 20         |
| Chlorobenzene               | 0.0250        | 0.0258 | 0.0265         | 103      | 106       | 79.0-121    |               |                | 2.59   | 20         |
| Chlorodibromomethane        | 0.0250        | 0.0262 | 0.0268         | 105      | 107       | 74.0-128    |               |                | 2.53   | 20         |
| Chloroethane                | 0.0250        | 0.0242 | 0.0234         | 96.7     | 93.6      | 51.0-147    |               |                | 3.20   | 20         |
| Chloroform                  | 0.0250        | 0.0256 | 0.0253         | 102      | 101       | 73.0-123    |               |                | 1.12   | 20         |
| Chloromethane               | 0.0250        | 0.0262 | 0.0254         | 105      | 102       | 51.0-138    |               |                | 2.91   | 20         |
| 2-Chlorotoluene             | 0.0250        | 0.0248 | 0.0250         | 99.3     | 100       | 72.0-124    |               |                | 0.911  | 20         |
| 4-Chlorotoluene             | 0.0250        | 0.0250 | 0.0252         | 100      | 101       | 78.0-120    |               |                | 0.781  | 20         |
| 1,2-Dibromo-3-Chloropropane | 0.0250        | 0.0283 | 0.0268         | 113      | 107       | 65.0-126    |               |                | 5.40   | 20         |
| 1,2-Dibromoethane           | 0.0250        | 0.0279 | 0.0280         | 112      | 112       | 78.0-122    |               |                | 0.520  | 20         |
| Dibromomethane              | 0.0250        | 0.0270 | 0.0267         | 108      | 107       | 79.0-120    |               |                | 0.864  | 20         |
| 1,2-Dichlorobenzene         | 0.0250        | 0.0256 | 0.0259         | 102      | 104       | 80.0-120    |               |                | 1.04   | 20         |
| 1,3-Dichlorobenzene         | 0.0250        | 0.0244 | 0.0249         | 97.8     | 99.5      | 72.0-123    |               |                | 1.80   | 20         |
| 1,4-Dichlorobenzene         | 0.0250        | 0.0236 | 0.0241         | 94.4     | 96.4      | 77.0-120    |               |                | 2.13   | 20         |
| Dichlorodifluoromethane     | 0.0250        | 0.0272 | 0.0250         | 109      | 99.9      | 49.0-155    |               |                | 8.42   | 20         |
| 1,1-Dichloroethane          | 0.0250        | 0.0258 | 0.0255         | 103      | 102       | 70.0-128    |               |                | 1.13   | 20         |
| 1,2-Dichloroethane          | 0.0250        | 0.0246 | 0.0244         | 98.3     | 97.8      | 69.0-128    |               |                | 0.562  | 20         |
| 1,1-Dichloroethene          | 0.0250        | 0.0240 | 0.0228         | 95.8     | 91.1      | 63.0-131    |               |                | 5.02   | 20         |
| cis-1,2-Dichloroethene      | 0.0250        | 0.0266 | 0.0265         | 106      | 106       | 74.0-123    |               |                | 0.235  | 20         |
| trans-1,2-Dichloroethene    | 0.0250        | 0.0253 | 0.0248         | 101      | 99.1      | 72.0-122    |               |                | 1.98   | 20         |
| 1,2-Dichloropropane         | 0.0250        | 0.0261 | 0.0261         | 104      | 104       | 75.0-126    |               |                | 0.0162 | 20         |
| 1,1-Dichloropropene         | 0.0250        | 0.0261 | 0.0251         | 104      | 100       | 72.0-130    |               |                | 3.81   | 20         |
| 1,3-Dichloropropane         | 0.0250        | 0.0271 | 0.0275         | 108      | 110       | 80.0-121    |               |                | 1.48   | 20         |
| cis-1,3-Dichloropropene     | 0.0250        | 0.0265 | 0.0274         | 106      | 110       | 80.0-125    |               |                | 3.21   | 20         |
| trans-1,3-Dichloropropene   | 0.0250        | 0.0274 | 0.0281         | 110      | 113       | 75.0-129    |               |                | 2.51   | 20         |
| 2,2-Dichloropropane         | 0.0250        | 0.0240 | 0.0233         | 96.0     | 93.1      | 60.0-129    |               |                | 3.10   | 20         |
| Di-isopropyl ether          | 0.0250        | 0.0269 | 0.0270         | 108      | 108       | 62.0-133    |               |                | 0.404  | 20         |
| Ethylbenzene                | 0.0250        | 0.0256 | 0.0260         | 103      | 104       | 77.0-120    |               |                | 1.23   | 20         |
| Hexachloro-1,3-butadiene    | 0.0250        | 0.0278 | 0.0272         | 111      | 109       | 68.0-128    |               |                | 2.24   | 20         |
| Isopropylbenzene            | 0.0250        | 0.0270 | 0.0267         | 108      | 107       | 75.0-120    |               |                | 1.12   | 20         |
| p-Isopropyltoluene          | 0.0250        | 0.0269 | 0.0266         | 108      | 106       | 74.0-125    |               |                | 0.980  | 20         |
| 2-Butanone (MEK)            | 0.125         | 0.134  | 0.124          | 107      | 99.6      | 37.0-159    |               |                | 7.49   | 20         |
| Methylene Chloride          | 0.0250        | 0.0238 | 0.0235         | 95.1     | 94.1      | 67.0-123    |               |                | 1.09   | 20         |
| 4-Methyl-2-pentanone (MIBK) | 0.125         | 0.149  | 0.144          | 120      | 115       | 60.0-144    |               |                | 3.57   | 20         |
| Methyl tert-butyl ether     | 0.0250        | 0.0266 | 0.0260         | 106      | 104       | 66.0-125    |               |                | 2.21   | 20         |
|                             | No: J1-680-R0 |        |                |          |           | Revision    | : 1           |                |        | Re         |
| AC                          | CCOUNT:       |        |                | PR       | OJECT:    |             | SDG:          |                |        | DATE/TIME: |

GRI - Beaverton, OR

5764-1195

SDG: L968449 Reissued for Use PAGE: 62 of 81

02/14/18 09:57

-

Ср

Τс

Ss

Cn

Sr

<sup>°</sup>Qc

GI

ΆI

Sc

Τс

Ss

Cn

Śr

Qc

GI

AI

Sc

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

| (LCS) R3285308-1 02/08/        | ′18 20:12 • (LCS | D) R3285308-3 | 2 02/08/18 20 | :32      |           |             |               |                |       |            |
|--------------------------------|------------------|---------------|---------------|----------|-----------|-------------|---------------|----------------|-------|------------|
|                                | Spike Amount     | LCS Result    | LCSD Result   | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |
| Analyte                        | mg/kg            | mg/kg         | mg/kg         | %        | %         | %           |               |                | %     | %          |
| Naphthalene                    | 0.0250           | 0.0297        | 0.0294        | 119      | 118       | 64.0-125    |               |                | 0.918 | 20         |
| n-Propylbenzene                | 0.0250           | 0.0252        | 0.0250        | 101      | 100       | 78.0-120    |               |                | 0.644 | 20         |
| Styrene                        | 0.0250           | 0.0257        | 0.0261        | 103      | 104       | 78.0-124    |               |                | 1.52  | 20         |
| 1,1,1,2-Tetrachloroethane      | 0.0250           | 0.0257        | 0.0266        | 103      | 107       | 74.0-124    |               |                | 3.61  | 20         |
| 1,1,2,2-Tetrachloroethane      | 0.0250           | 0.0272        | 0.0268        | 109      | 107       | 73.0-120    |               |                | 1.41  | 20         |
| Tetrachloroethene              | 0.0250           | 0.0253        | 0.0252        | 101      | 101       | 70.0-127    |               |                | 0.360 | 20         |
| Toluene                        | 0.0250           | 0.0244        | 0.0247        | 97.8     | 98.8      | 77.0-120    |               |                | 1.04  | 20         |
| 1,1,2-Trichlorotrifluoroethane | 0.0250           | 0.0239        | 0.0228        | 95.5     | 91.1      | 64.0-135    |               |                | 4.67  | 20         |
| 1,2,3-Trichlorobenzene         | 0.0250           | 0.0271        | 0.0278        | 108      | 111       | 68.0-126    |               |                | 2.42  | 20         |
| 1,2,4-Trichlorobenzene         | 0.0250           | 0.0268        | 0.0270        | 107      | 108       | 70.0-127    |               |                | 0.889 | 20         |
| 1,1,1-Trichloroethane          | 0.0250           | 0.0252        | 0.0243        | 101      | 97.1      | 69.0-125    |               |                | 3.56  | 20         |
| 1,1,2-Trichloroethane          | 0.0250           | 0.0268        | 0.0276        | 107      | 110       | 78.0-120    |               |                | 2.86  | 20         |
| Trichloroethene                | 0.0250           | 0.0267        | 0.0257        | 107      | 103       | 79.0-120    |               |                | 3.63  | 20         |
| Trichlorofluoromethane         | 0.0250           | 0.0229        | 0.0215        | 91.5     | 86.2      | 59.0-136    |               |                | 6.04  | 20         |
| 1,2,3-Trichloropropane         | 0.0250           | 0.0272        | 0.0263        | 109      | 105       | 73.0-124    |               |                | 3.48  | 20         |
| 1,2,3-Trimethylbenzene         | 0.0250           | 0.0260        | 0.0262        | 104      | 105       | 76.0-120    |               |                | 0.715 | 20         |
| 1,2,4-Trimethylbenzene         | 0.0250           | 0.0268        | 0.0270        | 107      | 108       | 75.0-120    |               |                | 0.592 | 20         |
| 1,3,5-Trimethylbenzene         | 0.0250           | 0.0262        | 0.0262        | 105      | 105       | 75.0-120    |               |                | 0.115 | 20         |
| Vinyl chloride                 | 0.0250           | 0.0252        | 0.0239        | 101      | 95.6      | 63.0-134    |               |                | 5.43  | 20         |
| Xylenes, Total                 | 0.0750           | 0.0778        | 0.0791        | 104      | 105       | 77.0-120    |               |                | 1.66  | 20         |
| (S) Toluene-d8                 |                  |               |               | 102      | 105       | 80.0-120    |               |                |       |            |
| (S) Dibromofluoromethane       |                  |               |               | 99.3     | 98.4      | 74.0-131    |               |                |       |            |
| (S) 4-Bromofluorobenzene       |                  |               |               | 99.8     | 100       | 64.0-132    |               |                |       |            |
|                                |                  |               |               |          |           |             |               |                |       |            |

#### L968674-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968674-03 02/09 | 9/18 03:24 • (MS)     | R3285308-4 (             | 02/09/18 06:04  | • (MSD) R328        | 5308-5 02/09 | /18 06:24 |          |             |              |               |       |                |          |
|-----------------------|-----------------------|--------------------------|-----------------|---------------------|--------------|-----------|----------|-------------|--------------|---------------|-------|----------------|----------|
|                       | Spike Amount<br>(dry) | Original Result<br>(dry) | MS Result (dry) | MSD Result<br>(dry) | MS Rec.      | MSD Rec.  | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits     |          |
| Analyte               | mg/kg                 | mg/kg                    | mg/kg           | mg/kg               | %            | %         |          | %           |              |               | %     | %              |          |
| Acetone               | 0.144                 | U                        | 5.28            | 6.14                | 71.1         | 82.7      | 51.5     | 10.0-160    |              |               | 15.1  | 36             |          |
| Acrylonitrile         | 0.144                 | U                        | 7.55            | 7.70                | 102          | 104       | 51.5     | 14.0-160    |              |               | 2.04  | 33             |          |
| Benzene               | 0.0288                | U                        | 1.35            | 1.38                | 91.0         | 92.6      | 51.5     | 13.0-146    |              |               | 1.83  | 27             |          |
| Bromobenzene          | 0.0288                | U                        | 1.36            | 1.39                | 91.8         | 93.8      | 51.5     | 10.0-149    |              |               | 2.21  | 33             |          |
| Bromodichloromethane  | 0.0288                | U                        | 1.37            | 1.36                | 92.0         | 91.7      | 51.5     | 15.0-142    |              |               | 0.377 | 28             |          |
| Bromoform             | 0.0288                | U                        | 1.40            | 1.40                | 94.5         | 94.0      | 51.5     | 10.0-147    |              |               | 0.592 | 31             |          |
| Bromomethane          | 0.0288                | U                        | 0.929           | 0.958               | 62.6         | 64.5      | 51.5     | 10.0-160    |              |               | 3.05  | 32             |          |
| n-Butylbenzene        | 0.0288                | U                        | 1.34            | 1.35                | 90.1         | 91.2      | 51.5     | 10.0-154    |              |               | 1.15  | 37             |          |
| sec-Butylbenzene      | 0.0288                | U                        | 1.41            | 1.43                | 95.0         | 96.4      | 51.5     | 10.0-151    |              |               | 1.43  | 36             |          |
| tert-Butylbenzene     | 0.0288                | U                        | 1.41            | 1.44                | 95.2         | 97.1      | 51.5     | 10.0-152    |              |               | 1.99  | 35             |          |
| Docume                | nt No: J1-680-RC      | GL-GRI-00001-            | 00              |                     |              | Revision: | 1        |             |              |               |       | Reissued for L | Jse      |
|                       | ACCOUNT:              |                          |                 | PRO.                | JECT:        |           |          | SDG:        |              | DATE/         | TIME: |                | PAGE:    |
| GRI                   | - Beaverton, OR       |                          |                 | 5764                | l-1195       |           | LS       | 968449      |              | 02/14/18      | 09:57 |                | 63 of 81 |

#### QUALITY CONTROL SUMMARY L968449-19,20,23

Τс

Ss

Cn

Sr

<sup>°</sup>Qc

GI

Â

Sc

#### L968674-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

#### (OS) L968674-03 02/09/18 03:24 • (MS) R3285308-4 02/09/18 06:04 • (MSD) R3285308-5 02/09/18 06:24

|                             | Spike Amount<br>(dry) | Original Result<br>(dry) | MS Result (dry) | MSD Result<br>(dry) | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD    | RPD Limits       |         |
|-----------------------------|-----------------------|--------------------------|-----------------|---------------------|---------|----------|----------|-------------|--------------|---------------|--------|------------------|---------|
| Analyte                     | mg/kg                 | mg/kg                    | mg/kg           | mg/kg               | %       | %        |          | %           |              |               | %      | %                |         |
| Carbon tetrachloride        | 0.0288                | U                        | 1.28            | 1.30                | 86.2    | 87.6     | 51.5     | 13.0-140    |              |               | 1.63   | 30               |         |
| Chlorobenzene               | 0.0288                | U                        | 1.40            | 1.45                | 94.4    | 97.4     | 51.5     | 10.0-149    |              |               | 3.12   | 31               |         |
| Chlorodibromomethane        | 0.0288                | U                        | 1.41            | 1.47                | 95.1    | 98.6     | 51.5     | 12.0-147    |              |               | 3.65   | 29               |         |
| Chloroethane                | 0.0288                | U                        | 0.420           | 0.408               | 28.3    | 27.4     | 51.5     | 10.0-159    |              |               | 2.90   | 33               |         |
| Chloroform                  | 0.0288                | U                        | 1.38            | 1.40                | 92.7    | 94.0     | 51.5     | 18.0-148    |              |               | 1.37   | 28               |         |
| Chloromethane               | 0.0288                | 0.0531                   | 1.24            | 1.29                | 79.7    | 83.4     | 51.5     | 10.0-146    |              |               | 4.29   | 29               |         |
| 2-Chlorotoluene             | 0.0288                | U                        | 1.35            | 1.38                | 91.0    | 93.2     | 51.5     | 10.0-151    |              |               | 2.37   | 35               |         |
| 4-Chlorotoluene             | 0.0288                | U                        | 1.37            | 1.39                | 92.5    | 93.6     | 51.5     | 10.0-150    |              |               | 1.15   | 35               |         |
| 1,2-Dibromo-3-Chloropropane | 0.0288                | U                        | 1.41            | 1.39                | 94.8    | 93.7     | 51.5     | 10.0-149    |              |               | 1.11   | 34               |         |
| 1,2-Dibromoethane           | 0.0288                | U                        | 1.52            | 1.59                | 102     | 107      | 51.5     | 14.0-145    |              |               | 4.13   | 28               |         |
| Dibromomethane              | 0.0288                | U                        | 1.48            | 1.49                | 99.6    | 100      | 51.5     | 18.0-144    |              |               | 0.595  | 27               |         |
| 1,2-Dichlorobenzene         | 0.0288                | U                        | 1.43            | 1.45                | 96.4    | 97.4     | 51.5     | 10.0-153    |              |               | 1.04   | 34               |         |
| 1,3-Dichlorobenzene         | 0.0288                | U                        | 1.32            | 1.35                | 88.9    | 90.7     | 51.5     | 10.0-150    |              |               | 2.04   | 35               |         |
| 1,4-Dichlorobenzene         | 0.0288                | U                        | 1.28            | 1.31                | 86.4    | 88.3     | 51.5     | 10.0-148    |              |               | 2.15   | 34               |         |
| Dichlorodifluoromethane     | 0.0288                | U                        | 1.30            | 1.30                | 87.4    | 87.5     | 51.5     | 10.0-160    |              |               | 0.0740 | 30               |         |
| 1,1-Dichloroethane          | 0.0288                | U                        | 1.36            | 1.38                | 91.6    | 93.0     | 51.5     | 19.0-148    |              |               | 1.53   | 28               |         |
| 1,2-Dichloroethane          | 0.0288                | U                        | 1.39            | 1.39                | 93.5    | 93.4     | 51.5     | 17.0-147    |              |               | 0.101  | 27               |         |
| 1,1-Dichloroethene          | 0.0288                | U                        | 1.07            | 1.08                | 72.0    | 72.7     | 51.5     | 10.0-150    |              |               | 1.05   | 31               |         |
| cis-1,2-Dichloroethene      | 0.0288                | U                        | 1.44            | 1.45                | 97.2    | 97.9     | 51.5     | 16.0-145    |              |               | 0.669  | 28               |         |
| trans-1,2-Dichloroethene    | 0.0288                | U                        | 1.29            | 1.31                | 86.6    | 88.4     | 51.5     | 11.0-142    |              |               | 1.97   | 29               |         |
| 1,2-Dichloropropane         | 0.0288                | U                        | 1.41            | 1.43                | 95.3    | 96.4     | 51.5     | 17.0-148    |              |               | 1.22   | 28               |         |
| 1,1-Dichloropropene         | 0.0288                | U                        | 1.36            | 1.36                | 91.7    | 91.8     | 51.5     | 10.0-150    |              |               | 0.0841 | 30               |         |
| 1,3-Dichloropropane         | 0.0288                | U                        | 1.53            | 1.57                | 103     | 106      | 51.5     | 16.0-148    |              |               | 2.79   | 27               |         |
| cis-1,3-Dichloropropene     | 0.0288                | U                        | 1.48            | 1.52                | 99.3    | 103      | 51.5     | 13.0-150    |              |               | 3.27   | 28               |         |
| trans-1,3-Dichloropropene   | 0.0288                | U                        | 1.47            | 1.53                | 99.0    | 103      | 51.5     | 10.0-152    |              |               | 3.94   | 29               |         |
| 2,2-Dichloropropane         | 0.0288                | U                        | 1.11            | 1.10                | 74.6    | 74.0     | 51.5     | 16.0-143    |              |               | 0.864  | 30               |         |
| Di-isopropyl ether          | 0.0288                | U                        | 1.51            | 1.53                | 102     | 103      | 51.5     | 16.0-149    |              |               | 1.47   | 28               |         |
| Ethylbenzene                | 0.0288                | U                        | 1.35            | 1.42                | 90.9    | 95.5     | 51.5     | 10.0-147    |              |               | 4.99   | 31               |         |
| Hexachloro-1,3-butadiene    | 0.0288                | U                        | 1.53            | 1.54                | 103     | 103      | 51.5     | 10.0-154    |              |               | 0.420  | 40               |         |
| Isopropylbenzene            | 0.0288                | U                        | 1.40            | 1.43                | 94.5    | 96.1     | 51.5     | 10.0-147    |              |               | 1.67   | 33               |         |
| p-lsopropyltoluene          | 0.0288                | U                        | 1.41            | 1.43                | 95.1    | 96.0     | 51.5     | 10.0-156    |              |               | 0.993  | 37               |         |
| 2-Butanone (MEK)            | 0.144                 | U                        | 6.55            | 7.08                | 88.1    | 95.4     | 51.5     | 10.0-160    |              |               | 7.87   | 33               |         |
| Methylene Chloride          | 0.0288                | U                        | 1.26            | 1.28                | 85.1    | 85.9     | 51.5     | 16.0-139    |              |               | 0.937  | 29               |         |
| 4-Methyl-2-pentanone (MIBK) | 0.144                 | U                        | 7.78            | 8.01                | 105     | 108      | 51.5     | 12.0-160    |              |               | 2.92   | 32               |         |
| Methyl tert-butyl ether     | 0.0288                | U                        | 1.52            | 1.53                | 102     | 103      | 51.5     | 21.0-145    |              |               | 1.08   | 29               |         |
| Naphthalene                 | 0.0288                | U                        | 1.49            | 1.61                | 101     | 109      | 51.5     | 10.0-153    |              |               | 7.70   | 36               |         |
| n-Propylbenzene             | 0.0288                | U                        | 1.31            | 1.32                | 88.2    | 88.9     | 51.5     | 10.0-151    |              |               | 0.837  | 34               |         |
| Styrene                     | 0.0288                | U                        | 1.44            | 1.46                | 97.2    | 98.2     | 51.5     | 10.0-155    |              |               | 1.02   | 34               |         |
| 1,1,1,2-Tetrachloroethane   | 0.0288                | U                        | 1.41            | 1.47                | 94.9    | 98.8     | 51.5     | 10.0-147    |              |               | 4.03   | 30               |         |
|                             |                       | GL-GRI-00001-            | 00              |                     |         | Revision | : 1      |             |              |               |        | Reissued for Use |         |
|                             | COUNT:                |                          |                 | PRO                 | JECT:   |          |          | SDG:        |              | DATE/         | TIME:  |                  | PAGE:   |
|                             | eaverton, OR          |                          |                 |                     | 4-1195  |          |          | 968449      |              | 02/14/18      |        |                  | 4 of 81 |

L968449-19,20,23

Ср

#### L968674-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

#### (OS) L968674-03 02/09/18 03:24 • (MS) R3285308-4 02/09/18 06:04 • (MSD) R3285308-5 02/09/18 06:24

|                                | Spike Amount<br>(dry) | Original Result<br>(dry) | MS Result (dry) | MSD Result<br>(dry) | MS Rec. | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD   | RPD Limits | <sup>2</sup> Tc |
|--------------------------------|-----------------------|--------------------------|-----------------|---------------------|---------|----------|----------|-------------|--------------|---------------|-------|------------|-----------------|
| Analyte                        | mg/kg                 | mg/kg                    | mg/kg           | mg/kg               | %       | %        |          | %           |              |               | %     | %          |                 |
| 1,1,2,2-Tetrachloroethane      | 0.0288                | U                        | 1.39            | 1.37                | 93.4    | 92.5     | 51.5     | 10.0-155    |              |               | 0.975 | 31         | <sup>3</sup> Ss |
| Tetrachloroethene              | 0.0288                | U                        | 1.25            | 1.29                | 84.5    | 86.6     | 51.5     | 10.0-144    |              |               | 2.53  | 32         | Ss              |
| Toluene                        | 0.0288                | U                        | 1.30            | 1.36                | 87.6    | 91.3     | 51.5     | 10.0-144    |              |               | 4.12  | 28         |                 |
| 1,1,2-Trichlorotrifluoroethane | 0.0288                | U                        | 1.12            | 1.21                | 75.2    | 81.5     | 51.5     | 10.0-153    |              |               | 8.08  | 33         | <sup>4</sup> Cr |
| 1,2,3-Trichlorobenzene         | 0.0288                | U                        | 1.47            | 1.56                | 98.9    | 105      | 51.5     | 10.0-153    |              |               | 5.78  | 40         |                 |
| 1,2,4-Trichlorobenzene         | 0.0288                | U                        | 1.43            | 1.51                | 96.2    | 101      | 51.5     | 10.0-156    |              |               | 5.29  | 40         | 5               |
| 1,1,1-Trichloroethane          | 0.0288                | U                        | 1.26            | 1.29                | 85.0    | 86.8     | 51.5     | 18.0-145    |              |               | 2.03  | 29         | ٢Sr             |
| 1,1,2-Trichloroethane          | 0.0288                | U                        | 1.50            | 1.53                | 101     | 103      | 51.5     | 12.0-151    |              |               | 2.26  | 28         |                 |
| Trichloroethene                | 0.0288                | U                        | 1.37            | 1.42                | 92.2    | 95.6     | 51.5     | 11.0-148    |              |               | 3.63  | 29         | <sup>6</sup> Qc |
| Trichlorofluoromethane         | 0.0288                | U                        | 0.964           | 0.955               | 64.9    | 64.3     | 51.5     | 10.0-157    |              |               | 0.984 | 34         |                 |
| 1,2,3-Trichloropropane         | 0.0288                | U                        | 1.43            | 1.44                | 96.4    | 97.1     | 51.5     | 10.0-154    |              |               | 0.721 | 32         | 7               |
| 1,2,3-Trimethylbenzene         | 0.0288                | U                        | 1.54            | 1.57                | 104     | 106      | 51.5     | 10.0-150    |              |               | 1.92  | 33         | Í GI            |
| 1,2,4-Trimethylbenzene         | 0.0288                | U                        | 1.45            | 1.49                | 97.9    | 100      | 51.5     | 10.0-151    |              |               | 2.47  | 34         |                 |
| 1,3,5-Trimethylbenzene         | 0.0288                | U                        | 1.39            | 1.42                | 93.4    | 95.5     | 51.5     | 10.0-150    |              |               | 2.15  | 33         | <sup>8</sup> Al |
| Vinyl chloride                 | 0.0288                | U                        | 1.15            | 1.18                | 77.4    | 79.1     | 51.5     | 10.0-150    |              |               | 2.19  | 29         |                 |
| Xylenes, Total                 | 0.0865                | U                        | 4.12            | 4.28                | 92.4    | 96.1     | 51.5     | 10.0-150    |              |               | 3.85  | 31         | 9               |
| (S) Toluene-d8                 |                       |                          |                 |                     | 104     | 106      |          | 80.0-120    |              |               |       |            | ຶSc             |
| (S) Dibromofluoromethane       |                       |                          |                 |                     | 98.7    | 97.8     |          | 74.0-131    |              |               |       |            |                 |
| (S) 4-Bromofluorobenzene       |                       |                          |                 |                     | 98.8    | 98.4     |          | 64.0-132    |              |               |       |            |                 |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | Re             | issued for Use |
|--------------------------------------|-----------|------------|----------------|----------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:          |
| GRI - Beaverton, OR                  | 5764-1195 | L968449    | 02/14/18 09:57 | 65 of 81       |

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

# QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

-

#### Method Blank (MB)

| Method Blank (MB)           |                   |               |                |                |             |                 | Ср              |
|-----------------------------|-------------------|---------------|----------------|----------------|-------------|-----------------|-----------------|
| (MB) R3285497-3 02/08/      |                   |               |                |                |             |                 |                 |
| Analuto                     | MB Result         | MB Qualifier  | MB MDL<br>ug/l | MB RDL<br>ug/l |             |                 | <sup>2</sup> Tc |
| Analyte<br>Acetone          | ug/l<br>U         |               | 10.0           | 50.0           |             |                 |                 |
| Acrolein                    | U                 |               | 8.87           | 50.0           |             |                 | 3               |
| Acrylonitrile               | U                 |               | 1.87           | 10.0           |             |                 | ິSs             |
| Benzene                     | U                 |               | 0.331          | 1.00           |             |                 |                 |
| Bromobenzene                | U                 |               | 0.352          | 1.00           |             |                 | <sup>4</sup> Cn |
| Bromodichloromethane        | U                 |               | 0.380          | 1.00           |             |                 |                 |
| Bromoform                   | U                 |               | 0.469          | 1.00           |             |                 | 5               |
| Bromomethane                | U                 |               | 0.866          | 5.00           |             |                 | Šr              |
| n-Butylbenzene              | U                 |               | 0.361          | 1.00           |             |                 |                 |
| sec-Butylbenzene            | U                 |               | 0.365          | 1.00           |             |                 | ်ီဝင            |
| tert-Butylbenzene           | U                 |               | 0.399          | 1.00           |             |                 |                 |
| Carbon tetrachloride        | U                 |               | 0.379          | 1.00           |             |                 | <sup>7</sup> Gl |
| Chlorobenzene               | U                 |               | 0.348          | 1.00           |             |                 | G               |
| Chlorodibromomethane        | U                 |               | 0.327          | 1.00           |             |                 | •               |
| Chloroethane                | U                 |               | 0.453          | 5.00           |             |                 | Å               |
| Chloroform                  | U                 |               | 0.324          | 5.00           |             |                 |                 |
| Chloromethane               | U                 |               | 0.276          | 2.50           |             |                 | <sup>9</sup> Sc |
| 2-Chlorotoluene             | U                 |               | 0.375          | 1.00           |             |                 | 50              |
| 4-Chlorotoluene             | U                 |               | 0.351          | 1.00           |             |                 |                 |
| 1,2-Dibromo-3-Chloropropane | U                 |               | 1.33           | 5.00           |             |                 |                 |
| 1,2-Dibromoethane           | U                 |               | 0.381          | 1.00           |             |                 |                 |
| Dibromomethane              | U                 |               | 0.346          | 1.00           |             |                 |                 |
| 1,2-Dichlorobenzene         | U                 |               | 0.349          | 1.00           |             |                 |                 |
| 1,3-Dichlorobenzene         | U                 |               | 0.220          | 1.00           |             |                 |                 |
| 1,4-Dichlorobenzene         | U                 |               | 0.274          | 1.00           |             |                 |                 |
| Dichlorodifluoromethane     | U                 |               | 0.551          | 5.00           |             |                 |                 |
| 1,1-Dichloroethane          | U                 |               | 0.259          | 1.00           |             |                 |                 |
| 1,2-Dichloroethane          | U                 |               | 0.361          | 1.00           |             |                 |                 |
| 1,1-Dichloroethene          | U                 |               | 0.398          | 1.00           |             |                 |                 |
| cis-1,2-Dichloroethene      | U                 |               | 0.260          | 1.00           |             |                 |                 |
| trans-1,2-Dichloroethene    | U                 |               | 0.396          | 1.00           |             |                 |                 |
| 1,2-Dichloropropane         | U                 |               | 0.306          | 1.00           |             |                 |                 |
| 1,1-Dichloropropene         | U                 |               | 0.352          | 1.00           |             |                 |                 |
| 1,3-Dichloropropane         | U                 |               | 0.366          | 1.00           |             |                 |                 |
| cis-1,3-Dichloropropene     | U                 |               | 0.418          | 1.00           |             |                 |                 |
| trans-1,3-Dichloropropene   | U                 |               | 0.419          | 1.00           |             |                 |                 |
| 2,2-Dichloropropane         | U                 |               | 0.321          | 1.00           |             |                 |                 |
| Di-isopropyl ether          | U                 |               | 0.320          | 1.00           |             |                 |                 |
| Ethylbenzene                | U                 |               | 0.384          | 1.00           |             |                 |                 |
| Hexachloro-1,3-butadiene    | U<br>No: 11 680 I | RGL-GRI-00001 | 0.256          | 1.00           | Revision: 1 | Reissued for Us | 0               |
|                             | CCOUNT:           |               | -00            | PROJECT        |             | DATE/TIME:      | PAGE:           |
|                             | Beaverton, OR     |               |                | 5764-1195      |             |                 | 66 of 81        |

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

# QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

#### Method Blank (MB)

| (MB) R3285497-3 02/08/1        | 18 21:32  |              |        |          | Ср              |
|--------------------------------|-----------|--------------|--------|----------|-----------------|
|                                | MB Result | MB Qualifier | MB MDL | MB RDL   | 2               |
| Analyte                        | ug/l      |              | ug/l   | ug/l     | T               |
| Isopropylbenzene               | U         |              | 0.326  | 1.00     |                 |
| p-Isopropyltoluene             | U         |              | 0.350  | 1.00     | <sup>3</sup> Ss |
| 2-Butanone (MEK)               | U         |              | 3.93   | 10.0     |                 |
| Methylene Chloride             | U         |              | 1.00   | 5.00     | 4               |
| 4-Methyl-2-pentanone (MIBK)    | U         |              | 2.14   | 10.0     | C               |
| Methyl tert-butyl ether        | U         |              | 0.367  | 1.00     |                 |
| Naphthalene                    | U         |              | 1.00   | 5.00     | ⁵Sr             |
| n-Propylbenzene                | U         |              | 0.349  | 1.00     |                 |
| Styrene                        | U         |              | 0.307  | 1.00     | 6_              |
| 1,1,1,2-Tetrachloroethane      | U         |              | 0.385  | 1.00     | <sup>6</sup> Qo |
| 1,1,2,2-Tetrachloroethane      | U         |              | 0.130  | 1.00     |                 |
| Tetrachloroethene              | U         |              | 0.372  | 1.00     | <sup>7</sup> Gl |
| Toluene                        | U         |              | 0.412  | 1.00     |                 |
| 1,1,2-Trichlorotrifluoroethane | U         |              | 0.303  | 1.00     | 8               |
| 1,2,3-Trichlorobenzene         | U         |              | 0.230  | 1.00     | A               |
| 1,2,4-Trichlorobenzene         | U         |              | 0.355  | 1.00     |                 |
| 1,1,1-Trichloroethane          | U         |              | 0.319  | 1.00     | °Sc             |
| 1,1,2-Trichloroethane          | U         |              | 0.383  | 1.00     |                 |
| Trichloroethene                | U         |              | 0.398  | 1.00     |                 |
| Trichlorofluoromethane         | U         |              | 1.20   | 5.00     |                 |
| 1,2,3-Trichloropropane         | U         |              | 0.807  | 2.50     |                 |
| 1,2,3-Trimethylbenzene         | U         |              | 0.321  | 1.00     |                 |
| 1,2,4-Trimethylbenzene         | U         |              | 0.373  | 1.00     |                 |
| 1,3,5-Trimethylbenzene         | U         |              | 0.387  | 1.00     |                 |
| Vinyl chloride                 | U         |              | 0.259  | 1.00     |                 |
| Xylenes, Total                 | U         |              | 1.06   | 3.00     |                 |
| (S) Toluene-d8                 | 108       |              |        | 80.0-120 |                 |
| (S) Dibromofluoromethane       | 82.5      |              |        | 76.0-123 |                 |
| (S) 4-Bromofluorobenzene       | 94.7      |              |        | 80.0-120 |                 |

#### Laboratory Control Sample (LCS)

| (LCS) R3285497-1 ( | 02/08/18 20:36      |             |          |             |               |             |                |                  |
|--------------------|---------------------|-------------|----------|-------------|---------------|-------------|----------------|------------------|
|                    | Spike Amount        | LCS Result  | LCS Rec. | Rec. Limits | LCS Qualifier |             |                |                  |
| Analyte            | ug/l                | ug/l        | %        | %           |               |             |                |                  |
| Acetone            | 125                 | 107         | 85.4     | 10.0-160    |               |             |                |                  |
| Acrolein           | 125                 | 480         | 384      | 10.0-160    | <u>J4</u>     |             |                |                  |
| Acrylonitrile      | 125                 | 91.3        | 73.0     | 60.0-142    |               |             |                |                  |
| Benzene            | 25.0                | 20.7        | 82.7     | 69.0-123    |               |             |                |                  |
| Doc                | ument No: J1-680-R0 | GL-GRI-0000 | -00      |             |               | Revision: 1 |                | Reissued for Use |
|                    | ACCOUNT:            |             |          | PROJ        | ECT:          | SDG:        | DATE/TIME:     | PAGE:            |
|                    | GRI - Beaverton, OR |             |          | 5764-       | 1195          | L968449     | 02/14/18 09:57 | 67 of 81         |

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

### QUALITY CONTROL SUMMARY

L968449-16,17,21

#### Laboratory Control Sample (LCS)

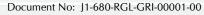
| (LCS) R3285497-1 02/08/1    | 18 20:36     |            |          |             |               |
|-----------------------------|--------------|------------|----------|-------------|---------------|
| (,                          | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte                     | ug/l         | ug/l       | %        | %           |               |
| Bromobenzene                | 25.0         | 20.2       | 80.9     | 79.0-120    |               |
| Bromodichloromethane        | 25.0         | 20.7       | 82.8     | 76.0-120    |               |
| Bromoform                   | 25.0         | 21.3       | 85.3     | 67.0-132    |               |
| Bromomethane                | 25.0         | 9.63       | 38.5     | 18.0-160    |               |
| n-Butylbenzene              | 25.0         | 22.5       | 89.9     | 72.0-126    |               |
| sec-Butylbenzene            | 25.0         | 22.7       | 90.7     | 74.0-121    |               |
| tert-Butylbenzene           | 25.0         | 23.0       | 91.9     | 75.0-122    |               |
| Carbon tetrachloride        | 25.0         | 21.5       | 85.9     | 63.0-122    |               |
| Chlorobenzene               | 25.0         | 24.7       | 99.0     | 79.0-121    |               |
| Chlorodibromomethane        | 25.0         | 23.4       | 93.5     | 75.0-125    |               |
| Chloroethane                | 25.0         | 19.8       | 79.3     | 47.0-152    |               |
| Chloroform                  | 25.0         | 20.2       | 80.9     | 72.0-121    |               |
| Chloromethane               | 25.0         | 13.8       | 55.1     | 48.0-139    |               |
| 2-Chlorotoluene             | 25.0         | 21.8       | 87.1     | 74.0-122    |               |
| 4-Chlorotoluene             | 25.0         | 21.5       | 86.2     | 79.0-120    |               |
| 1,2-Dibromo-3-Chloropropane | 25.0         | 19.5       | 77.8     | 64.0-127    |               |
| 1,2-Dibromoethane           | 25.0         | 23.9       | 95.5     | 77.0-123    |               |
| Dibromomethane              | 25.0         | 22.3       | 89.1     | 78.0-120    |               |
| 1,2-Dichlorobenzene         | 25.0         | 22.3       | 89.1     | 80.0-120    |               |
| 1,3-Dichlorobenzene         | 25.0         | 22.3       | 89.0     | 72.0-123    |               |
| 1,4-Dichlorobenzene         | 25.0         | 21.3       | 85.3     | 77.0-120    |               |
| Dichlorodifluoromethane     | 25.0         | 22.3       | 89.3     | 49.0-155    |               |
| 1,1-Dichloroethane          | 25.0         | 20.5       | 81.8     | 70.0-126    |               |
| 1,2-Dichloroethane          | 25.0         | 18.4       | 73.7     | 67.0-126    |               |
| 1,1-Dichloroethene          | 25.0         | 21.4       | 85.7     | 64.0-129    |               |
| cis-1,2-Dichloroethene      | 25.0         | 20.0       | 79.9     | 73.0-120    |               |
| trans-1,2-Dichloroethene    | 25.0         | 21.6       | 86.3     | 71.0-121    |               |
| 1,2-Dichloropropane         | 25.0         | 21.8       | 87.3     | 75.0-125    |               |
| 1,1-Dichloropropene         | 25.0         | 21.1       | 84.5     | 71.0-129    |               |
| 1,3-Dichloropropane         | 25.0         | 22.7       | 90.8     | 80.0-121    |               |
| cis-1,3-Dichloropropene     | 25.0         | 23.4       | 93.4     | 79.0-123    |               |
| trans-1,3-Dichloropropene   | 25.0         | 24.6       | 98.2     | 74.0-127    |               |
| 2,2-Dichloropropane         | 25.0         | 20.6       | 82.4     | 60.0-125    |               |
| Di-isopropyl ether          | 25.0         | 19.3       | 77.2     | 59.0-133    |               |
| Ethylbenzene                | 25.0         | 25.8       | 103      | 77.0-120    |               |
| Hexachloro-1,3-butadiene    | 25.0         | 24.7       | 98.7     | 64.0-131    |               |
| Isopropylbenzene            | 25.0         | 23.1       | 92.5     | 75.0-120    |               |
| p-lsopropyltoluene          | 25.0         | 22.8       | 91.2     | 74.0-126    |               |
|                             | 105          | 110        | 00 F     | 27.0.45.0   |               |

Тс Ss Cn Sr Qc



Sc

GI



112

17.9

89.5

71.6

37.0-158

66.0-121

PROJECT:

5764-1195

ACCOUNT: GRI - Beaverton, OR

125

25.0

2-Butanone (MEK)

Methylene Chloride

Revision: 1

SDG: L968449

DATE/TIME: 02/14/18 09:57 Reissued for Use PAGE: 68 of 81 Volatile Organic Compounds (GC/MS) by Method 8260B

#### QUALITY CONTROL SUMMARY L968449-16,17,21

#### Laboratory Control Sample (LCS)

| (LCS) R3285497-1 02/08/        | 18 20:36     |            |          |             |               |
|--------------------------------|--------------|------------|----------|-------------|---------------|
|                                | Spike Amount | LCS Result | LCS Rec. | Rec. Limits | LCS Qualifier |
| Analyte                        | ug/l         | ug/l       | %        | %           |               |
| 4-Methyl-2-pentanone (MIBK)    | 125          | 111        | 88.8     | 59.0-143    |               |
| Methyl tert-butyl ether        | 25.0         | 18.8       | 75.2     | 64.0-123    |               |
| Naphthalene                    | 25.0         | 20.0       | 80.2     | 62.0-128    |               |
| n-Propylbenzene                | 25.0         | 23.1       | 92.4     | 79.0-120    |               |
| Styrene                        | 25.0         | 22.6       | 90.6     | 78.0-124    |               |
| 1,1,1,2-Tetrachloroethane      | 25.0         | 24.7       | 98.7     | 75.0-122    |               |
| 1,1,2,2-Tetrachloroethane      | 25.0         | 19.9       | 79.4     | 71.0-122    |               |
| Tetrachloroethene              | 25.0         | 27.1       | 108      | 70.0-127    |               |
| Toluene                        | 25.0         | 25.0       | 99.9     | 77.0-120    |               |
| 1,1,2-Trichlorotrifluoroethane | 25.0         | 22.7       | 90.6     | 61.0-136    |               |
| 1,2,3-Trichlorobenzene         | 25.0         | 22.8       | 91.2     | 61.0-133    |               |
| 1,2,4-Trichlorobenzene         | 25.0         | 22.9       | 91.5     | 69.0-129    |               |
| 1,1,1-Trichloroethane          | 25.0         | 21.4       | 85.8     | 68.0-122    |               |
| 1,1,2-Trichloroethane          | 25.0         | 23.6       | 94.4     | 78.0-120    |               |
| Trichloroethene                | 25.0         | 24.3       | 97.4     | 78.0-120    |               |
| Trichlorofluoromethane         | 25.0         | 22.2       | 88.8     | 56.0-137    |               |
| 1,2,3-Trichloropropane         | 25.0         | 20.5       | 82.2     | 72.0-124    |               |
| 1,2,3-Trimethylbenzene         | 25.0         | 21.9       | 87.5     | 75.0-120    |               |
| 1,2,4-Trimethylbenzene         | 25.0         | 21.9       | 87.6     | 75.0-120    |               |
| 1,3,5-Trimethylbenzene         | 25.0         | 22.0       | 87.9     | 75.0-120    |               |
| Vinyl chloride                 | 25.0         | 20.1       | 80.4     | 64.0-133    |               |
| Xylenes, Total                 | 75.0         | 75.9       | 101      | 77.0-120    |               |
| (S) Toluene-d8                 |              |            | 108      | 80.0-120    |               |
| (S) Dibromofluoromethane       |              |            | 82.4     | 76.0-123    |               |
| (S) 4-Bromofluorobenzene       |              |            | 96.4     | 80.0-120    |               |

| Document No: J1-680-RGL-GRI-00001-00 | R         | evision: 1 | Rei            | ssued for Use |
|--------------------------------------|-----------|------------|----------------|---------------|
| ACCOUNT:                             | PROJECT:  | SDG:       | DATE/TIME:     | PAGE:         |
| GRI - Beaverton, OR                  | 5764-1195 | L968449    | 02/14/18 09:57 | 69 of 81      |

Тс

Ss

Cn

Sr

Qc

GI

A

Sc

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

#### QUALITY CONTROL SUMMARY L9<u>68449-14,22,23,24,27</u>

ONE LAB. NATIONWIDE.

Sr

Qc

GI

A

#### Method Blank (MB)

| ivietnod Blank (ivi         | В)         |              |        |          | 1 |
|-----------------------------|------------|--------------|--------|----------|---|
| (MB) R3285195-1 02/09       | 9/18 07:58 |              |        |          |   |
|                             | MB Result  | MB Qualifier | MB MDL | MB RDL   | ſ |
| Analyte                     | mg/kg      |              | mg/kg  | mg/kg    |   |
| Diesel Range Organics (DRO  | )) U       |              | 1.33   | 4.00     |   |
| Residual Range Organics (RF | RO) U      |              | 3.33   | 10.0     |   |
| (S) o-Terphenyl             | 92.2       |              |        | 18.0-148 |   |
|                             |            |              |        |          | ſ |
|                             |            |              |        |          |   |

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

| (LCS) R3285195-2 02/09/1      | 18 08:12 • (LCS | D) R3285195-3 | 3 02/09/18 08: | 26       |           |             |               |                |       |            |
|-------------------------------|-----------------|---------------|----------------|----------|-----------|-------------|---------------|----------------|-------|------------|
|                               | Spike Amount    | LCS Result    | LCSD Result    | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |
| Analyte                       | mg/kg           | mg/kg         | mg/kg          | %        | %         | %           |               |                | %     | %          |
| Diesel Range Organics (DRO)   | 25.0            | 23.1          | 22.9           | 92.2     | 91.6      | 50.0-150    |               |                | 0.633 | 20         |
| Residual Range Organics (RRO) | 25.0            | 25.1          | 26.7           | 101      | 107       | 50.0-150    |               |                | 5.99  | 20         |
| (S) o-Terphenyl               |                 |               |                | 87.2     | 83.6      | 18.0-148    |               |                |       |            |

#### L968472-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

| (OS) L968472-03 02/09/18      | 8 08:39 • (MS)        | R3285195-4 0             | 2/09/18 08:53   | • (MSD) R3285       | 195-5 02/09/1 | 8 09:07  |          |             |              |               |      |            | 9  |
|-------------------------------|-----------------------|--------------------------|-----------------|---------------------|---------------|----------|----------|-------------|--------------|---------------|------|------------|----|
|                               | Spike Amount<br>(dry) | Original Result<br>(dry) | MS Result (dry) | MSD Result<br>(dry) | MS Rec.       | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD  | RPD Limits | Sc |
| Analyte                       | mg/kg                 | mg/kg                    | mg/kg           | mg/kg               | %             | %        |          | %           |              |               | %    | %          |    |
| Diesel Range Organics (DRO)   | 26.8                  | ND                       | 27.1            | 29.8                | 87.6          | 97.6     | 1        | 50.0-150    |              |               | 9.45 | 20         |    |
| Residual Range Organics (RRO) | 26.8                  | ND                       | 36.8            | 39.0                | 107           | 115      | 1        | 50.0-150    |              |               | 5.90 | 20         |    |
| (S) o-Terphenyl               |                       |                          |                 |                     | 74.5          | 80.1     |          | 18.0-148    |              |               |      |            |    |

| Document No: J1-680-RGL-GRI-00001-00 |           | Revision: 1 | Re             | eissued for Use |
|--------------------------------------|-----------|-------------|----------------|-----------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:           |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 70 of 81        |

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

### QUALITY CONTROL SUMMARY

L968449-16,17,21,25

#### Method Blank (MB)

| MB) R3284911-3 02/08   | 3/18 09:41 |              |         |          |  |
|------------------------|------------|--------------|---------|----------|--|
|                        | MB Result  | MB Qualifier | MB MDL  | MB RDL   |  |
| Analyte                | ug/l       |              | ug/l    | ug/l     |  |
| Anthracene             | U          |              | 0.0140  | 0.0500   |  |
| Acenaphthene           | U          |              | 0.0100  | 0.0500   |  |
| Acenaphthylene         | U          |              | 0.0120  | 0.0500   |  |
| Benzo(a)anthracene     | U          |              | 0.00410 | 0.0500   |  |
| Benzo(a)pyrene         | U          |              | 0.0116  | 0.0500   |  |
| Benzo(b)fluoranthene   | U          |              | 0.00212 | 0.0500   |  |
| Benzo(g,h,i)perylene   | U          |              | 0.00227 | 0.0500   |  |
| Benzo(k)fluoranthene   | U          |              | 0.0136  | 0.0500   |  |
| Chrysene               | U          |              | 0.0108  | 0.0500   |  |
| Dibenz(a,h)anthracene  | U          |              | 0.00396 | 0.0500   |  |
| Fluoranthene           | U          |              | 0.0157  | 0.0500   |  |
| Fluorene               | U          |              | 0.00850 | 0.0500   |  |
| Indeno(1,2,3-cd)pyrene | U          |              | 0.0148  | 0.0500   |  |
| Naphthalene            | U          |              | 0.0198  | 0.250    |  |
| Phenanthrene           | U          |              | 0.00820 | 0.0500   |  |
| Pyrene                 | U          |              | 0.0117  | 0.0500   |  |
| 1-Methylnaphthalene    | U          |              | 0.00821 | 0.250    |  |
| 2-Methylnaphthalene    | U          |              | 0.00902 | 0.250    |  |
| 2-Chloronaphthalene    | U          |              | 0.00647 | 0.250    |  |
| (S) Nitrobenzene-d5    | 132        |              |         | 31.0-160 |  |
| (S) 2-Fluorobiphenyl   | 119        |              |         | 48.0-148 |  |
| (S) p-Terphenyl-d14    | 116        |              |         | 37.0-146 |  |
|                        |            |              |         |          |  |

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

GRI - Beaverton, OR

| (LCS) R3284911-1 02/08 | /18 08:52 • (LCSI | D) R3284911-2 | 02/08/18 09:17 | 7        |           |             |               |                |      |            |                  |
|------------------------|-------------------|---------------|----------------|----------|-----------|-------------|---------------|----------------|------|------------|------------------|
|                        | Spike Amount      | LCS Result    | LCSD Result    | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |                  |
| Analyte                | ug/l              | ug/l          | ug/l           | %        | %         | %           |               |                | %    | %          |                  |
| Anthracene             | 2.00              | 2.17          | 2.33           | 109      | 117       | 64.0-142    |               |                | 7.06 | 20         |                  |
| Acenaphthene           | 2.00              | 2.04          | 2.16           | 102      | 108       | 66.0-132    |               |                | 5.87 | 20         |                  |
| Acenaphthylene         | 2.00              | 2.06          | 2.19           | 103      | 110       | 65.0-132    |               |                | 6.33 | 20         |                  |
| Benzo(a)anthracene     | 2.00              | 2.04          | 2.11           | 102      | 105       | 59.0-134    |               |                | 3.44 | 20         |                  |
| Benzo(a)pyrene         | 2.00              | 2.12          | 2.23           | 106      | 111       | 61.0-145    |               |                | 4.91 | 20         |                  |
| Benzo(b)fluoranthene   | 2.00              | 1.97          | 2.04           | 98.7     | 102       | 57.0-136    |               |                | 3.14 | 20         |                  |
| Benzo(g,h,i)perylene   | 2.00              | 2.38          | 2.53           | 119      | 126       | 54.0-140    |               |                | 6.03 | 20         |                  |
| Benzo(k)fluoranthene   | 2.00              | 2.10          | 2.25           | 105      | 112       | 57.0-141    |               |                | 6.73 | 20         |                  |
| Chrysene               | 2.00              | 2.09          | 2.29           | 105      | 114       | 63.0-140    |               |                | 8.90 | 20         |                  |
| Dibenz(a,h)anthracene  | 2.00              | 2.33          | 2.39           | 117      | 120       | 49.0-141    |               |                | 2.53 | 20         |                  |
| Fluoranthene           | 2.00              | 2.42          | 2.56           | 121      | 128       | 65.0-143    |               |                | 5.46 | 20         |                  |
| Docume                 | nt No: J1-680-R0  | GL-GRI-00001  | -00            |          |           | Revision:   | 1             |                |      |            | Reissued for Use |
|                        | ACCOUNT:          |               |                | PRO      | JECT:     |             | SDG:          |                |      | DATE/TIME: | PAGE:            |

5764-1195 L968449 02/14/18 09:57 71 of 81

L968449-16,17,21,25

Τс

Ss

Ċn

Sr

Qc

GI

Â

Sc

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

| (LCS) R3284911-1 | 02/08/18 08:52 • | (LCSD) R3284911-2 | 02/08/18 09:17 |
|------------------|------------------|-------------------|----------------|

|                        | Spike Amount | LCS Result | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD  | RPD Limits |  |
|------------------------|--------------|------------|-------------|----------|-----------|-------------|---------------|----------------|------|------------|--|
| Analyte                | ug/l         | ug/l       | ug/l        | %        | %         | %           |               |                | %    | %          |  |
| Fluorene               | 2.00         | 1.82       | 1.96        | 90.9     | 98.1      | 64.0-129    |               |                | 7.56 | 20         |  |
| Indeno(1,2,3-cd)pyrene | 2.00         | 2.38       | 2.48        | 119      | 124       | 53.0-141    |               |                | 4.21 | 20         |  |
| Naphthalene            | 2.00         | 1.92       | 2.05        | 96.2     | 102       | 68.0-129    |               |                | 6.30 | 20         |  |
| Phenanthrene           | 2.00         | 1.88       | 2.01        | 94.1     | 101       | 62.0-132    |               |                | 6.67 | 20         |  |
| Pyrene                 | 2.00         | 1.91       | 2.02        | 95.4     | 101       | 58.0-156    |               |                | 5.43 | 20         |  |
| 1-Methylnaphthalene    | 2.00         | 2.05       | 2.17        | 102      | 109       | 68.0-137    |               |                | 5.94 | 20         |  |
| 2-Methylnaphthalene    | 2.00         | 1.96       | 2.09        | 98.0     | 105       | 68.0-134    |               |                | 6.55 | 20         |  |
| 2-Chloronaphthalene    | 2.00         | 1.98       | 2.23        | 99.2     | 112       | 65.0-129    |               |                | 11.8 | 20         |  |
| (S) Nitrobenzene-d5    |              |            |             | 123      | 129       | 31.0-160    |               |                |      |            |  |
| (S) 2-Fluorobiphenyl   |              |            |             | 109      | 115       | 48.0-148    |               |                |      |            |  |
| (S) p-Terphenyl-d14    |              |            |             | 107      | 114       | 37.0-146    |               |                |      |            |  |

| Document No: J1-680-RGL-GRI-00001-00 | Ā         | Revision: 1 | Rei            | ssued for Use |
|--------------------------------------|-----------|-------------|----------------|---------------|
| ACCOUNT:                             | PROJECT:  | SDG:        | DATE/TIME:     | PAGE:         |
| GRI - Beaverton, OR                  | 5764-1195 | L968449     | 02/14/18 09:57 | 72 of 81      |

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SEM/8449-06,07,08,09,10,11,12,13,14,15,18,19,20,22,23,24,26,27,28,29

#### Method Blank (MB)

| (MB) R3285294-3 02/0   | 08/18 13:02 |              |          |          | Cp              |
|------------------------|-------------|--------------|----------|----------|-----------------|
|                        | MB Result   | MB Qualifier | MB MDL   | MB RDL   | 2               |
| Analyte                | mg/kg       |              | mg/kg    | mg/kg    | Tc              |
| Anthracene             | U           |              | 0.000600 | 0.00600  |                 |
| Acenaphthene           | U           |              | 0.000600 | 0.00600  | <sup>3</sup> Ss |
| Acenaphthylene         | U           |              | 0.000600 | 0.00600  |                 |
| Benzo(a)anthracene     | U           |              | 0.000600 | 0.00600  | 4               |
| Benzo(a)pyrene         | U           |              | 0.000600 | 0.00600  | Cn              |
| Benzo(b)fluoranthene   | U           |              | 0.000600 | 0.00600  |                 |
| Benzo(g,h,i)perylene   | U           |              | 0.000600 | 0.00600  | ⁵Sr             |
| Benzo(k)fluoranthene   | U           |              | 0.000600 | 0.00600  |                 |
| Chrysene               | U           |              | 0.000600 | 0.00600  | 6               |
| Dibenz(a,h)anthracene  | U           |              | 0.000600 | 0.00600  | <sup>6</sup> Qc |
| Fluoranthene           | U           |              | 0.000600 | 0.00600  | _               |
| Fluorene               | U           |              | 0.000600 | 0.00600  | <sup>7</sup> Gl |
| Indeno(1,2,3-cd)pyrene | U           |              | 0.000600 | 0.00600  |                 |
| Naphthalene            | U           |              | 0.00200  | 0.0200   | 8               |
| Phenanthrene           | U           |              | 0.000600 | 0.00600  | A               |
| Pyrene                 | U           |              | 0.000600 | 0.00600  |                 |
| 1-Methylnaphthalene    | U           |              | 0.00200  | 0.0200   | Sc              |
| 2-Methylnaphthalene    | U           |              | 0.00200  | 0.0200   |                 |
| 2-Chloronaphthalene    | U           |              | 0.00200  | 0.0200   |                 |
| (S) Nitrobenzene-d5    | 114         |              |          | 14.0-149 |                 |
| (S) 2-Fluorobiphenyl   | 88.7        |              |          | 34.0-125 |                 |
| (S) p-Terphenyl-d14    | 87.6        |              |          | 23.0-120 |                 |
|                        |             |              |          |          |                 |

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

| (LCS) R3285294-1 02/08/18 12:20 • (LCSD) R3285294-2 02/08/18 12:41 |                  |              |             |          |           |             |               |                |       |            |                  |
|--|------------------|--------------|-------------|----------|-----------|-------------|---------------|----------------|-------|------------|------------------|
|  | Spike Amount     | LCS Result   | LCSD Result | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |                  |
| Analyte  | mg/kg            | mg/kg        | mg/kg       | %        | %         | %           |               |                | %     | %          |                  |
| Anthracene   | 0.0800           | 0.0763       | 0.0791      | 95.3     | 98.9      | 50.0-125    |               |                | 3.70  | 20         |                  |
| Acenaphthene   | 0.0800           | 0.0732       | 0.0759      | 91.4     | 94.8      | 52.0-120    |               |                | 3.63  | 20         |                  |
| Acenaphthylene   | 0.0800           | 0.0799       | 0.0827      | 99.9     | 103       | 51.0-120    |               |                | 3.46  | 20         |                  |
| Benzo(a)anthracene   | 0.0800           | 0.0891       | 0.0926      | 111      | 116       | 46.0-121    |               |                | 3.81  | 20         |                  |
| Benzo(a)pyrene   | 0.0800           | 0.0793       | 0.0829      | 99.1     | 104       | 42.0-121    |               |                | 4.45  | 20         |                  |
| Benzo(b)fluoranthene   | 0.0800           | 0.0907       | 0.0869      | 113      | 109       | 42.0-123    |               |                | 4.23  | 20         |                  |
| Benzo(g,h,i)perylene   | 0.0800           | 0.0816       | 0.0788      | 102      | 98.5      | 43.0-128    |               |                | 3.49  | 20         |                  |
| Benzo(k)fluoranthene   | 0.0800           | 0.0715       | 0.0696      | 89.3     | 87.1      | 45.0-128    |               |                | 2.57  | 20         |                  |
| Chrysene   | 0.0800           | 0.0703       | 0.0729      | 87.9     | 91.1      | 48.0-127    |               |                | 3.61  | 20         |                  |
| Dibenz(a,h)anthracene  | 0.0800           | 0.0835       | 0.0864      | 104      | 108       | 43.0-132    |               |                | 3.42  | 20         |                  |
| Fluoranthene   | 0.0800           | 0.0783       | 0.0778      | 97.9     | 97.2      | 49.0-129    |               |                | 0.671 | 20         |                  |
| Documen  | it No: J1-680-R0 | GL-GRI-00001 | -00         |          |           | Revision:   | 1             |                |       |            | Reissued for Use |

| ACCOUNT:            | PROJECT:  | SDG:    | DATE/TIME:     |
|---------------------|-----------|---------|----------------|
| GRI - Beaverton, OR | 5764-1195 | L968449 | 02/14/18 09:57 |

PAGE: 73 of 81

Semi Volatile Organic Compounds (GC/MS) by Method 8270D-\$10/104449-06,07,08,09,10,11,12,13,14,15,18,19,20,22,23,24,26,27,28,29

Ср

Τс

Ss

Cn

Sr

. Qc

GI

Â

Sc

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

| (LCS) R3285294-1 02/0  | 08/18 12:20 • (LCS | D) R3285294 | -2 02/08/18 12 | :41      |           |             |               |                |       |            |  |
|------------------------|--------------------|-------------|----------------|----------|-----------|-------------|---------------|----------------|-------|------------|--|
|                        | Spike Amount       | LCS Result  | LCSD Result    | LCS Rec. | LCSD Rec. | Rec. Limits | LCS Qualifier | LCSD Qualifier | RPD   | RPD Limits |  |
| Analyte                | mg/kg              | mg/kg       | mg/kg          | %        | %         | %           |               |                | %     | %          |  |
| Fluorene               | 0.0800             | 0.0759      | 0.0790         | 94.9     | 98.7      | 50.0-120    |               |                | 3.96  | 20         |  |
| Indeno(1,2,3-cd)pyrene | 0.0800             | 0.0820      | 0.0854         | 102      | 107       | 44.0-131    |               |                | 4.08  | 20         |  |
| Naphthalene            | 0.0800             | 0.0751      | 0.0771         | 93.9     | 96.4      | 50.0-120    |               |                | 2.65  | 20         |  |
| Phenanthrene           | 0.0800             | 0.0762      | 0.0784         | 95.3     | 98.0      | 48.0-120    |               |                | 2.89  | 20         |  |
| Pyrene                 | 0.0800             | 0.0748      | 0.0742         | 93.5     | 92.7      | 48.0-135    |               |                | 0.849 | 20         |  |
| 1-Methylnaphthalene    | 0.0800             | 0.0805      | 0.0814         | 101      | 102       | 52.0-122    |               |                | 1.15  | 20         |  |
| 2-Methylnaphthalene    | 0.0800             | 0.0759      | 0.0777         | 94.9     | 97.2      | 52.0-120    |               |                | 2.35  | 20         |  |
| 2-Chloronaphthalene    | 0.0800             | 0.0740      | 0.0760         | 92.5     | 95.0      | 50.0-120    |               |                | 2.65  | 20         |  |
| (S) Nitrobenzene-d5    |                    |             |                | 122      | 122       | 14.0-149    |               |                |       |            |  |
| (S) 2-Fluorobiphenyl   |                    |             |                | 93.9     | 98.6      | 34.0-125    |               |                |       |            |  |
| (S) p-Terphenyl-d14    |                    |             |                | 94.7     | 97.9      | 23.0-120    |               |                |       |            |  |
|                        |                    |             |                |          |           |             |               |                |       |            |  |

#### L968449-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

#### (OS) L968449-23 02/08/18 18:13 • (MS) R3285294-4 02/08/18 18:33 • (MSD) R3285294-5 02/08/18 18:54

|                                      | Spike Amount<br>(dry) | Original Result<br>(dry) | MS Result (dry) | MSD Result<br>(dry) | MS Rec.   | MSD Rec. | Dilution | Rec. Limits | MS Qualifier | MSD Qualifier | RPD             | RPD Limits |          |
|--------------------------------------|-----------------------|--------------------------|-----------------|---------------------|-----------|----------|----------|-------------|--------------|---------------|-----------------|------------|----------|
| Analyte                              | mg/kg                 | mg/kg                    | mg/kg           | mg/kg               | %         | %        |          | %           |              |               | %               | %          |          |
| Anthracene                           | 0.0960                | 0.00241                  | 0.0593          | 0.0621              | 59.2      | 62.1     | 1        | 20.0-136    |              |               | 4.60            | 24         |          |
| Acenaphthene                         | 0.0960                | 0.00376                  | 0.0690          | 0.0701              | 67.9      | 69.1     | 1        | 29.0-124    |              |               | 1.58            | 20         |          |
| Acenaphthylene                       | 0.0960                | 0.000818                 | 0.0757          | 0.0768              | 78.0      | 79.1     | 1        | 35.0-120    |              |               | 1.40            | 20         |          |
| Benzo(a)anthracene                   | 0.0960                | 0.00109                  | 0.0566          | 0.0608              | 57.8      | 62.2     | 1        | 13.0-132    |              |               | 7.20            | 27         |          |
| Benzo(a)pyrene                       | 0.0960                | U                        | 0.0497          | 0.0530              | 51.8      | 55.2     | 1        | 14.0-138    |              |               | 6.32            | 27         |          |
| Benzo(b)fluoranthene                 | 0.0960                | U                        | 0.0500          | 0.0550              | 52.0      | 57.2     | 1        | 10.0-129    |              |               | 9.55            | 31         |          |
| Benzo(g,h,i)perylene                 | 0.0960                | U                        | 0.0436          | 0.0493              | 45.4      | 51.3     | 1        | 10.0-133    |              |               | 12.3            | 30         |          |
| Benzo(k)fluoranthene                 | 0.0960                | U                        | 0.0435          | 0.0462              | 45.3      | 48.1     | 1        | 15.0-131    |              |               | 6.06            | 27         |          |
| Chrysene                             | 0.0960                | 0.000728                 | 0.0480          | 0.0514              | 49.2      | 52.8     | 1        | 15.0-137    |              |               | 6.94            | 25         |          |
| Dibenz(a,h)anthracene                | 0.0960                | U                        | 0.0495          | 0.0531              | 51.5      | 55.3     | 1        | 15.0-132    |              |               | 7.15            | 27         |          |
| Fluoranthene                         | 0.0960                | U                        | 0.0546          | 0.0585              | 56.8      | 60.9     | 1        | 13.0-139    |              |               | 7.01            | 28         |          |
| Fluorene                             | 0.0960                | 0.00339                  | 0.0674          | 0.0687              | 66.7      | 68.0     | 1        | 27.0-122    |              |               | 1.87            | 22         |          |
| Indeno(1,2,3-cd)pyrene               | 0.0960                | U                        | 0.0453          | 0.0499              | 47.2      | 51.9     | 1        | 11.0-133    |              |               | 9.52            | 29         |          |
| Naphthalene                          | 0.0960                | 0.0129                   | 0.0891          | 0.0879              | 79.4      | 78.1     | 1        | 18.0-136    |              |               | 1.39            | 21         |          |
| Phenanthrene                         | 0.0960                | 0.00928                  | 0.0708          | 0.0702              | 64.1      | 63.5     | 1        | 15.0-133    |              |               | 0.802           | 25         |          |
| Pyrene                               | 0.0960                | 0.00229                  | 0.0529          | 0.0560              | 52.7      | 55.9     | 1        | 11.0-146    |              |               | 5.63            | 29         |          |
| 1-Methylnaphthalene                  | 0.0960                | 0.0451                   | 0.116           | 0.112               | 73.8      | 69.6     | 1        | 24.0-137    |              |               | 3.54            | 22         |          |
| 2-Methylnaphthalene                  | 0.0960                | 0.0520                   | 0.117           | 0.113               | 67.5      | 63.7     | 1        | 23.0-136    |              |               | 3.18            | 22         |          |
| 2-Chloronaphthalene                  | 0.0960                | U                        | 0.0689          | 0.0703              | 71.7      | 73.2     | 1        | 36.0-120    |              |               | 2.08            | 20         |          |
| (S) Nitrobenzene-d5                  |                       |                          |                 |                     | 117       | 116      |          | 14.0-149    |              |               |                 |            |          |
| (S) 2-Fluorobiphenyl                 |                       |                          |                 |                     | 81.1      | 84.3     |          | 34.0-125    |              |               |                 |            |          |
| (S) p-Terphenyl-d14                  |                       |                          |                 |                     | 61.2      | 73.4     |          | 23.0-120    |              |               |                 |            |          |
| Document No: J1-680-RGL-GRI-00001-00 |                       |                          |                 |                     | Revision: |          |          |             |              |               | Reissued for Us | ;e         |          |
|                                      | ACCOUNT:              |                          |                 |                     | JECT:     |          |          | SDG:        |              | DATE/         |                 |            | PAGE:    |
|                                      | GRI - Beaverton, OR   |                          |                 | 5764                | l-1195    |          | LS       | 968449      |              | 02/14/18      | 09:57           |            | 74 of 81 |