PACIFIC POWER
A DIVISION OF PACIFICORP

825 NE Multnomah Street, Suite 2000
Portland, Oregon 97232

March 28, 2024

VIA ELECTRONIC FILING

Public Utility Commission of Oregon
Attn: Filing Center
201 High Street SE, Suite 100
Salem, OR 97301-3398

Re: Docket UE 219—PacifiCorp's Compliance Filing

On July 29, 2021, the Public Utility Commission of Oregon (Commission) issued Order No. 21-242, adopting staff recommendations to approve PacifiCorp d/b/a Pacific Power's (PacifiCorp or the Company) Application for Approval of a Property Transfer Agreement with the Klamath River Renewal Corporation (KRRC), subject to the several conditions. Those conditions included the following three requirements regarding reports provided to KRRC and the states of Oregon and California (the States):

4. *PacifiCorp shall file in this docket any written report it provides to KRRC and the States regarding each Pre-Existing Environmental Condition, as such provision is required by Section 3.5(b). Each such written report is to be filed on the same date it is provided to KRRC and the States. Additionally, PacifiCorp is to file in this docket any updates to each report provided to KRR and the States under Section 3.5(b).*
5. *PacifiCorp shall file in this docket the report it is to provide KRRC and the States regarding the status of its efforts to resolve the Pre-Existing Environmental Conditions under Section 3.5(c) of the Property Transfer Agreement. This report is to be filed on the same date it is provided to KRRC and the States.*

On March 27, 2024, PacifiCorp provided final versions of Site Investigation Report Supplement No. 1 to stakeholders. The Company submits this compliance filing of these same reports in docket UE 219 as required in Order 21-242.

- Attachment A - California Site Investigation Report Supplement No. 1 (Final March 2024)
- Attachment B – Oregon Site Investigation Report Supplement No. 1 (Final March 2024)

If you have any questions matter, please contact Cathie Allen, Regulatory Affairs Manager, at (503) 813-5934.

Sincerely,

Matthew McVee
Vice President, Regulatory Policy and Operations

Enclosures

Attachment A

Jacobs

Lower Klamath Project (FERC No. P-14803)

California Site Investigation Report Supplement No. 1

Final

March 2024

PACIFICORP

Lower Klamath Project
(FERC No. P-14803)

Project No:	D3514100
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Project Manager:	Emilio Candanoza, Jacobs, 541-768-3509

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Acronyms and Abbreviations

µg/kg	microgram(s) per kilogram
µg/L	microgram(s) per liter
AECOM	AECOM Technical Services, Inc.
Agreement	Property Transfer Agreement entered into by PacifiCorp and Klamath River Renewal Corporation
bgs	below ground surface
California SIR1	*California Site Investigation Report Supplement No. 1*
California SIWP	*California Site Investigation Work Plan*
California SIWP Supplement	*California Site Investigation Work Plan Supplement No. 1*
COI	contaminant(s) of interest
COPC	chemical(s) of potential concern
DTSC	Department of Toxic Substances Control
ELCR	excess lifetime cancer risk
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
ESA	environmental site assessment
FERC	Federal Energy Regulatory Commission
GPS	Global Positioning System
HHRA	human health risk assessment
HI	hazard index
HQ	hazard quotient
IRIS	Integrated Risk Information System
J	estimated value that is less than the reporting limit but greater than the method detection limit
Jacobs	Jacobs Engineering Group Inc.
KRRC	Klamath River Renewal Corporation
MDC	maximum detected concentration
MDL	method detection limit
mg/kg	milligram(s) per kilogram(s)
O&G	oil and grease
PCB	polychlorinated biphenyl
PEC	pre-existing environmental condition
Project	Lower Klamath Project

RBC	risk-based concentration
RBCc	risk-based concentrations for cancer effects
RBCnc	risk-based concentrations for noncancer effects
REC	recognized environmental condition
RSL	regional screening level
SFRWQCB	San Francisco Regional Water Quality Control Board
SL	screening level
THQ	target hazard quotient
TPH	total petroleum hydrocarbon
TRL	target (cancer) risk level
TSCA	Toxic Substances Control Act
UCL	upper confidence limit
UST	underground storage tank

1. Introduction

PacifiCorp retained Jacobs Engineering Group Inc. (Jacobs) to prepare this *California Site Investigation Report Supplement No. 1* (California SIR1) for the Lower Klamath Project (Project). The purpose of California SIR1 is to document environmental investigations performed at the retained easement areas, Copco No. 1 Switchyard, and Iron Gate Substation (Figure 1-1). The investigations were performed in accordance with the *California Site Investigation Work Plan Supplement No. 1* (California SIWP Supplement) (Jacobs 2023a) and supplement the investigation results documented in the *California Site Investigation Report* (Jacobs 2023b).

Condition 8 (High-voltage Switchyards) and Condition 16 (Retained Easement Areas) were identified as pre-existing environmental conditions (PECs) in Exhibit C of the legally-binding Property Transfer Agreement (Agreement) between PacifiCorp and the Klamath River Renewal Corporation (KRRC). Field activities and analytical results from soil sampling at the Copco No. 1 Switchyard (Figure 1-2) and Iron Gate Substation (Figure 1-3) are documented in this California SIR1. Also documented in this California SIR1 are results of the desktop environmental review and reconnaissance-level field survey of the retained easement areas (Condition 16).

While the Agreement and specifically Exhibit C to the Agreement discuss the resolution of PECs, the *California Site Investigation Work Plan* (California SIWP) (Jacobs 2021) and the California SIWP Supplement refer to the Exhibit C items generically as recognized environmental conditions (RECs). Not all PECs in Exhibit C have been formally identified as a REC in a Phase I environmental site assessment (ESA). Consequently, the term REC is used interchangeably with PEC and site throughout this document.

The California SIWP Supplement was approved by the KRRC (Lowy, pers. comm. 2022) and the State of California (Meyers, pers. comm. 2022). A separate *Oregon Site Investigation Work Plan Supplement No. 1* was developed for the J.C. Boyle Development (Jacobs 2023c).

1.1 Background

The California SIWP and California SIWP Supplement provide detailed backgrounds of the Copco No. 1, Copco No. 2, and Iron Gate developments, a complete list of the Exhibit C PECs, and a discussion of the surrounding lands, local geology, and historical practices (Jacobs 2021). This information is incorporated into the California SIR1 by reference. Also pertinent to the sites addressed in this California SIR1 are the two Phase I ESAs conducted for the Oregon and California hydroelectric developments (AECOM 2018, 2020).

Of importance to note regarding each site and the development of both SIWPs are the following:

- There were no records of spills or releases at most of the sites, no site investigations had been conducted, and therefore actual site conditions at each site were not known.
- Sampling plans for each site were developed consistent with industry standards and were based on assumed conditions (historical site activities and likely contaminants) at each site.

- Site-specific sampling plans were developed to determine if the contaminants of interest (COIs) summarized in Section 1.3 (Investigative Standard and Future Site Uses) are present at concentrations that exceeded screening levels.
- The COIs for each site were selected using the most conservative (i.e., lowest) screening levels for residential, ecological, and leaching to groundwater exposure scenarios and on the understood future use for each site, as agreed upon by the KRRC (Lowy, pers. comm. 2021) and the State of California.

The dams were used to generate and distribute electricity. Hazardous materials that have been used onsite include diesel fuel, leaded and unleaded gasoline, non-polychlorinated biphenyls (non-PCBs), and governor, transformer, and motor oils. Battery banks and oils are stored within secondary containment systems. As noted in the Phase I ESA conducted by AECOM, the powerhouses appeared to be in good operating condition, with proper housekeeping and hazardous materials management practices (AECOM 2018).

1.2 Objectives

The primary objective of this California SIR1 is to document the field activities and analytical results. Recommended next steps are provided based on analytical results derived from the risk evaluation. Considered next steps include a request for site closure, collection of additional environmental samples, or site remediation (Figure 1-4). If risk evaluation of the analytical results indicates acceptable risk, PacifiCorp will request closure of the site. As used in this report, site closure refers to a closure action agreed upon by PacifiCorp, KRRC, and California and documented in a Memorandum of Resolution. If risk evaluation of analytical results indicates the risk is unacceptable, PacifiCorp will either collect additional samples according to the sampling plan established for the site or develop a remediation plan based on the field and analytical data already collected.

1.3 Investigative Standard and Future Site Uses

The field assessment and data evaluations for this California SIR1 were performed in accordance with the Investigative Standard, as defined in Section 1.5 of the California SIWP (Jacobs 2021). The California SIWP Supplement addressed multiple sites and identified intended future uses and exposure pathways at the Exhibit C sites that had not been addressed in the California SIWP (Jacobs 2021). The exposure pathways were used to determine appropriate screening levels per the criteria developed in Section 3.3 of the California SIWP (Jacobs 2021) and as revised in Section 3.1. The intended future site uses and exposure pathways for each site (Table 1-1) were identified in the California SIWP Supplement and approved by KRRC (Lowy, pers. comm. 2022) and the State of California. The exposure pathways were used to determine the screening levels and to evaluate the analytical results as described in Section 3 and implemented in Sections 5 and 6 of this California SIR1.

The COIs for the high-voltage switchyards (and substations) are PCBs and transformer oil based on historical practices. For the remaining sites, the COPCs will be based on available information and the type of site identified.

The field observations and analytical results from the site investigation at the retained easements and switchyards were evaluated to determine if the site can be closed or if further assessment, remediation, risk assessment, or a combination are required.

Table 1-1. Site Future Uses and Exposure Pathways

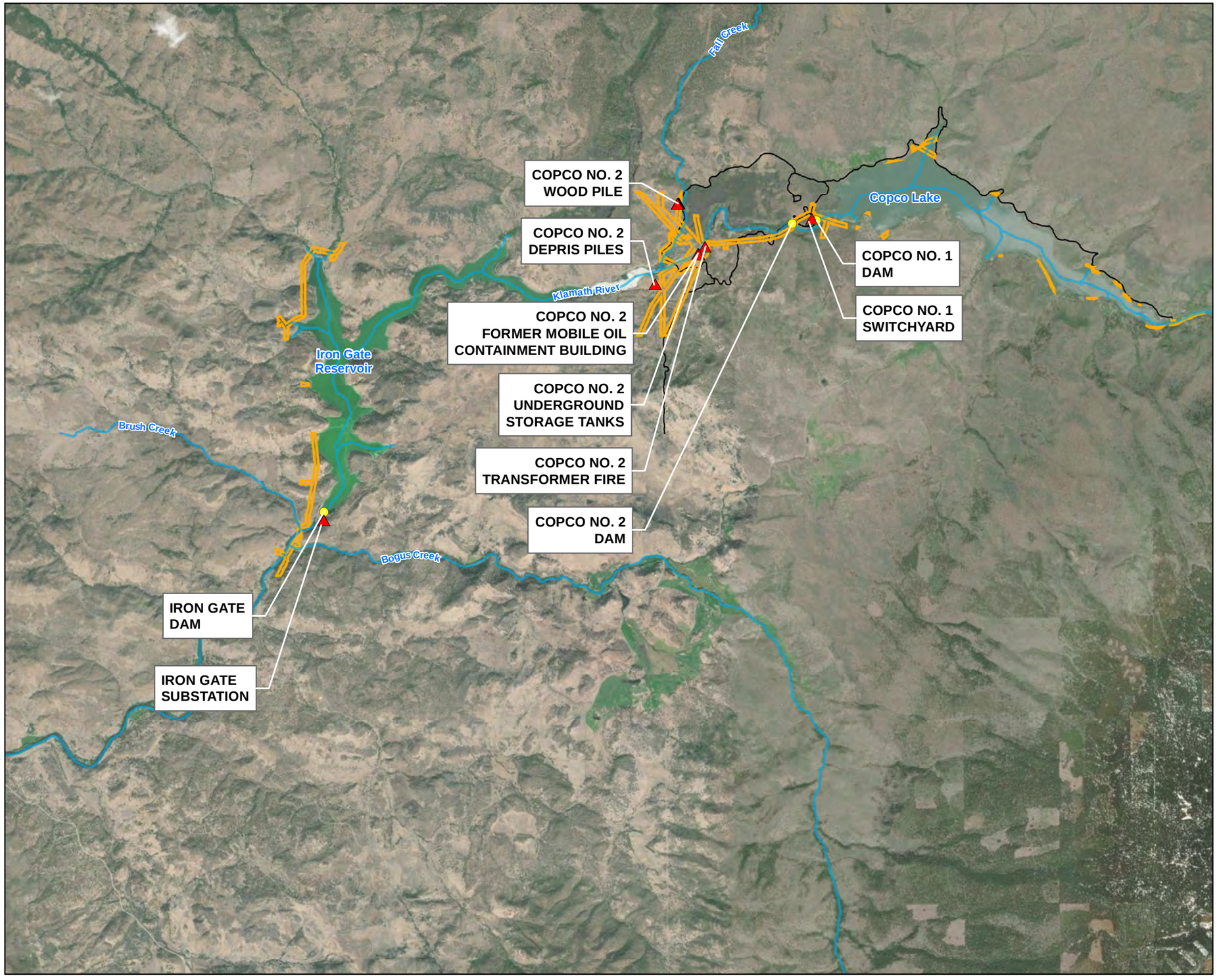
Exhibit C REC No.	Site/REC	Site Future Use	Exposure Pathways
5	Undiscovered Impacted Soil and Groundwater at the Four Powerhouses	Active recreation	Residential/leaching to groundwater
6	Underground Storage Tanks	Active recreation	Residential/leaching to groundwater
8	High-voltage switchyards (and substations)	Active recreation	Residential/leaching to groundwater
9	Undiscovered Impacted Soil and Groundwater at the Four Dam Developments	Active recreation	Residential/leaching to groundwater
15	Inaccessible Areas	Passive recreation/natural habitat	Residential/ecological/leaching to groundwater
16	Retained Easement Areas	Passive recreation/natural habitat	Residential/ecological/leaching to groundwater
17	Undiscovered Impacted Soil and Groundwater Outside the Removal Work Zone	Passive recreation/natural habitat	Residential/ecological/leaching to groundwater

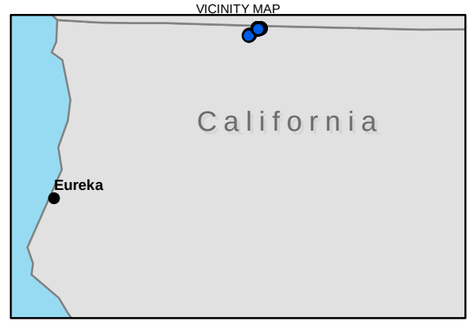
1.4 Report Organization

This California SIR1 contains the following sections and appendices:

- **Section 1 – Introduction**: Describes the California SIR1 purpose, provides background information on the evolution of the sites, objectives of the California SIR1, Investigative Standards utilized, future site uses, applicable exposure pathways, and COIs for the sites.
- **Section 2 – Field Activities**: Provides a general overview of the field activities performed when implementing the California SIWP Supplement at the switchyards and retained easements.
- **Section 3 – Risk Assessment Approach**: Describes the general risk assessment approach used to evaluate human health risk and leaching to groundwater risk from COPCs in soil.
- **Section 4 – Retained Easement Areas**: Summarizes the environmental review of retained easements used for accessing, maintaining, operating, repairing, replacing, enlarging, reconstructing, or removing PacifiCorp's electrical transmission and distribution facilities. Provides recommended next steps for closure.

- **Section 5** – **Copco No. 1 Switchyard**. Summarizes the field activities and analytical laboratory results and provides the risk assessments and recommended next steps for closure of the Copco No. 1 Switchyard.
- **Section 6** – **Iron Gate Substation**. Summarizes the field activities and analytical laboratory results and provides the risk assessments and recommended next steps for closure of the Iron Gate Substation
- **Section 7 – Summary of Recommendations**: Summarizes the recommendations for further action.
- **Section 8 – References**: Provides a bibliographic listing of documents cited in this California SIR1.
- **Appendix A – Siskiyou County Well Permits**: Contains the water well permits from the Siskiyou County Community Development-Environmental Health Division for the soil borings advanced at each site.
- **Appendix B – Boring Logs**: Contains coordinates for borehole locations based on Global Positioning System (GPS) surveys and borehole logs at the sites.
- **Appendix C – Analytical Laboratory Results**: Provides the analytical laboratory results for samples collected from each of the sample locations and highlights results that exceeded a screening level.
- **Appendix D – Data Quality Evaluation Report**: Assesses the data quality of the analytical results for environmental samples collected at the sites.
- **Appendix E – Human Health Risk Evaluation Tables**: Provides the supporting tables of calculations for the human health risk evaluations as applicable for the sites.
- **Appendix F – Retained Easement Environmental Review**: Presents the results of the environmental desktop review and reconnaissance surveys within the retained easements owned by PacifiCorp.
- **Appendix G** – **Consolidated Comment Matrix**: Contains consolidated review comments and responses from KRRC and California related to this California SIR1.





LEGEND

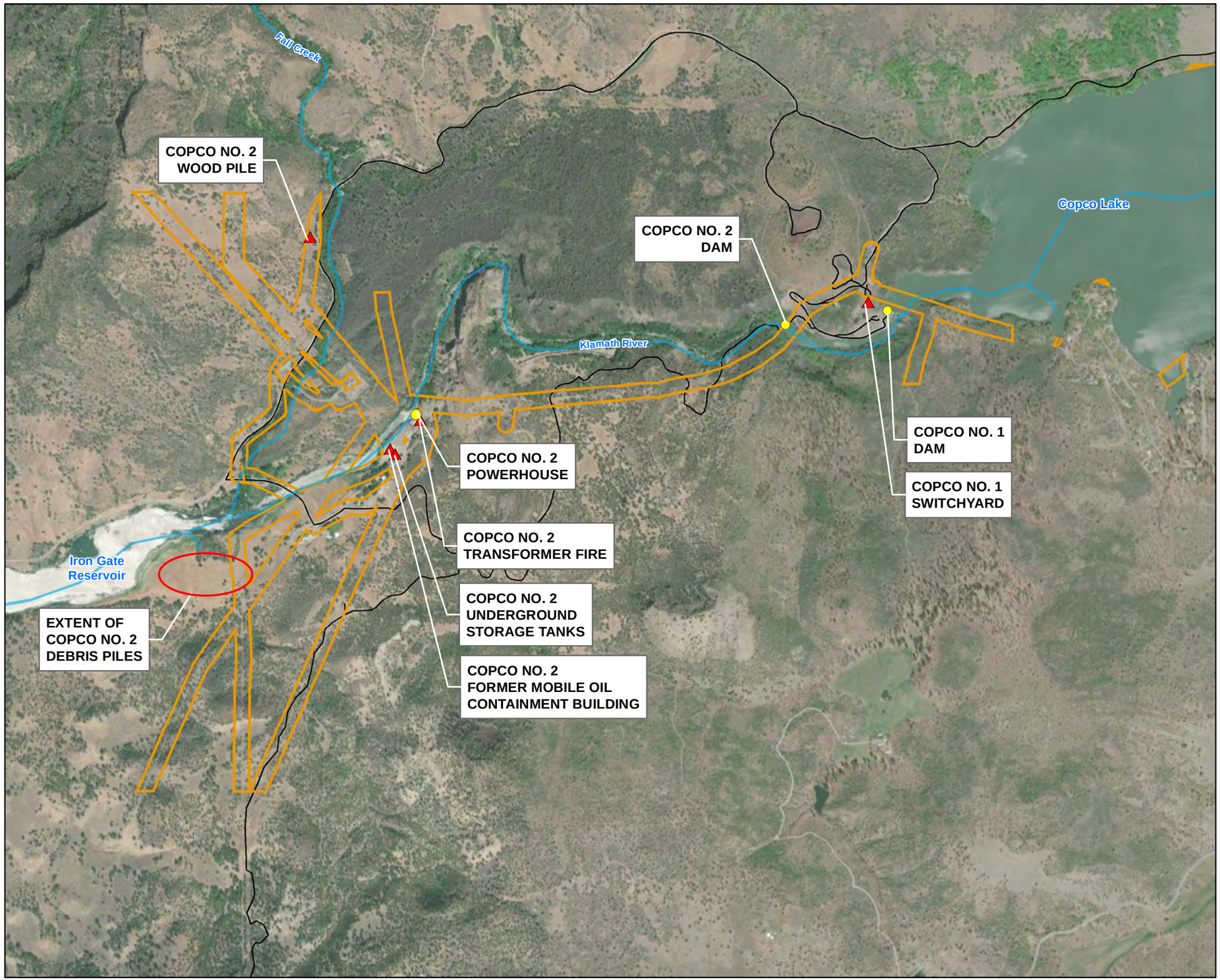
- Dam to be Removed
- Recognized Environmental Condition
- River/Creek
- Access Roads
- Retained Easements on KRRC Property

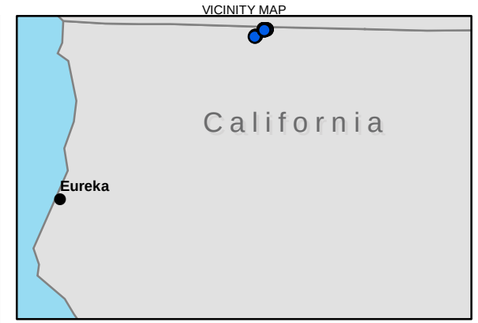
N

0 0.5 1
Miles

FIGURE 1-1
Recognized Environmental Conditions and Retained Easements
Lower Klamath Hydroelectric Project

Jacobs





LEGEND

- Dam of Facility to be Removed
- Recognized Environmental Condition
- River/Creek
- Access Roads
- Retained Easements on KRRC Property

N

0 0.25 0.5
Miles

FIGURE 1-2
Copco No. 1 and Copco No. 2
Recognized Environmental Conditions and Retained Easements
Lower Klamath Hydroelectric Project

Jacobs

LEGEND

- Dam to be Removed
- Recognized Environmental Condition
- River/Creek
- Access Roads
- Retained Easements on KRRC Property

N

0 1,000 2,000
Feet

FIGURE 1-3
Iron Gate
Recognized Environmental Conditions and Retained Easements
Lower Klamath Hydroelectric Project

Jacobs

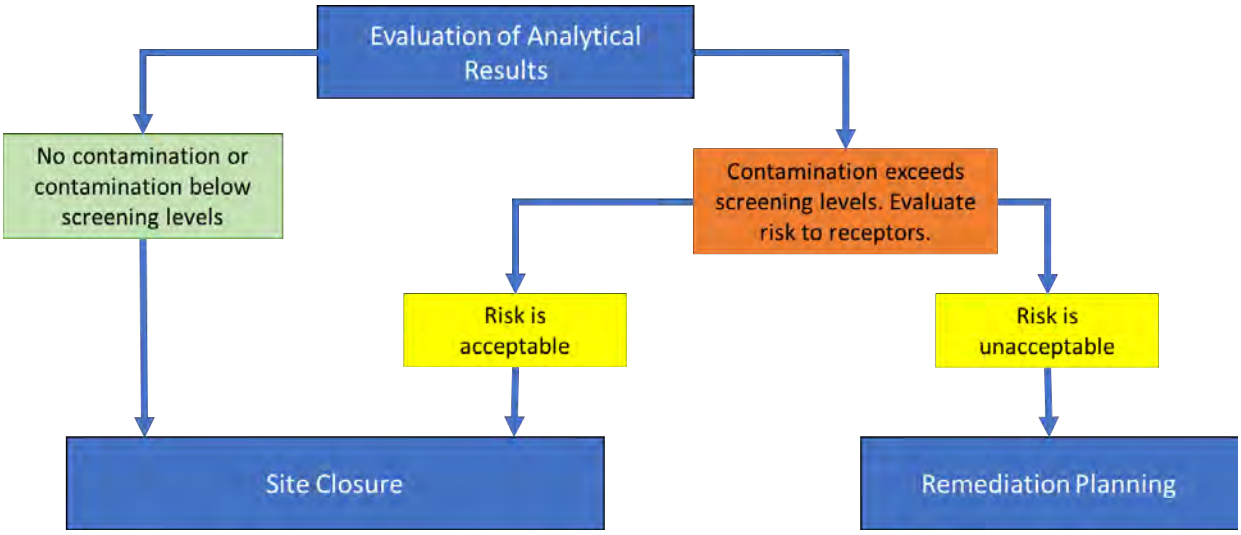


Figure 1-4. Flowchart of Possible Next Steps

2. Field Activities

The California SIWP Supplement was designed to be implemented under multiple mobilizations and when required to address the discovery of an environmental concern within the sites identified in text (Jacobs 2023a). The first mobilization for investigation of the Copco No. 1 and Iron Gate switchyards and the retained easements was performed in April 2023. Field activities were documented daily in field logbooks and on tablets. The scopes of work specific to each site were implemented as outlined in the California SIWP Supplement.

2.1 Switchyard Soil Investigation Activities

Drilling permits (Appendix A) were obtained from the Siskiyou County Community Development Environmental Health Division before mobilizing to collect soil and concrete samples from the switchyards. Field activities primarily included the following during the week of April 10, 2023:

- The soil and concrete sample locations were marked within the Copco No. 1 Switchyard and Iron Gate Substation based on the planned sample location coordinates identified in the California SIWP Supplement.
- The marked sample locations were cleared for the presence of subsurface utilities by a third-party utility locator service and were moved if subsurface utilities were identified or if field conditions required movement of a sample location.
- A stainless-steel hand trowel or hand auger was used to advance each cleared soil boring for the collection of soil samples. At locations with significant gravel, the coarse gravel was removed with the hand trowel to provide access to finer material of a grain size that could be processed by the laboratory for analysis. A hand chisel and hammer were used to chip away the top 0.25 inch of surficial concrete, which was subsequently pulverized for submittal to the laboratory for analysis.
- Soil samples were collected for borehole logging purposes and for laboratory analysis. Soil samples were collected from surface grade to a depth of 0.5 foot below ground surface (bgs) and from a depth of 1 to 1.5 feet bgs. The soil and concrete samples were collected as identified in Appendix A of the California SIWP. The samples were analyzed for PCBs by U.S. Environmental Protection Agency (EPA) Method SW846 8082A and for oil and grease by EPA Method SW846 9071B.
- Concrete samples were collected at the base of structures or stained areas with the potential to contain PCBs, oil, and grease.
- Soil and concrete sample locations were surveyed with a hand-held GPS unit. The final survey coordinates and the boring logs for each soil boring are presented in Appendix B.
- Decontamination water samples were collected for waste characterization and profiling purposes in advance of offsite disposal in accordance with applicable state and federal requirements.
- Upon completion of sampling activities, each soil boring was abandoned with hydrated bentonite pellets and under purview of a Siskiyou County inspector.

Details of the site-specific soil and concrete sampling activities are summarized in Sections 5 and 6.

2.2 Retained Easement Investigation Activities

During the week of April 10, 2023, qualified staff walked accessible portions of the retained easements to assess the potential for PECs. During the site reconnaissance, field teams used ArcGIS (ESRI 2023) field maps loaded with the retained easement geospatial areas to record locations and photo points of any items of interest.

2.3 Waste Management

Wastes generated from soil sampling activities included general refuse and wastewater from decontamination of equipment. Waste soil was not generated when sampling the switchyards. General refuse was disposed of in trash bins used by PacifiCorp. Wastewater was segregated by site and containerized in labeled, United Nations-approved 5-gallon buckets staged within a secured area near the Copco No. 2 Powerhouse.

Wastewater samples were collected from each site for waste profiling purposes. Because the analytical results for the wastewater fit the existing wastewater profile generated when implementing the California SIWP (Jacobs 2021), the wastewater was disposed of offsite with other contaminated soil.

2.4 Sample Collection and Management

Soil and concrete samples were collected in glass jars provided by the analytical laboratory and in accordance with the Sampling and Analysis Plan (Appendix A of the California SIWP). The sample jars were labeled, placed in resealable plastic bags, and stored in an insulated cooler that was chilled to maintain a shipping temperature of about 4 degrees Celsius. The sample cooler contained a temperature blank used for recording the temperature of the samples in the cooler upon arrival at the laboratory.

A chain-of-custody form was completed in the field and accompanied each of the samples during transport to the analytical laboratory, Eurofins Test America in Tacoma, Washington. Test America distributed some samples to other laboratories as required to complete the analysis. Laboratory analyses were performed in accordance with current EPA procedures and by laboratories certified by the California State Environmental Laboratory Accreditation Program Branch. Analytical laboratory results of all samples collected are provided in Appendix C.

3. Risk Assessment Approach

This section describes the general risk assessment approach used to evaluate human health risk and leaching to groundwater risk from COPCs in soil. Risk managers used the results of this analysis to support risk management decisions for each site.

3.1 Human Health Risk Assessment

A streamlined human health risk assessment (HHRA) was conducted for each site to evaluate human health risk to applicable receptors from exposure to contaminants in soil. The HHRA provides information that can support risk-management decision making, including the need for further action. Concrete is not a media evaluated in risk assessments, so the analytical results from concrete samples were not included in this evaluation.

This HHRA was conducted in a manner consistent with the following California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) guidance:

- *Human Health Risk Assessment Note Number 1 – Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Hazardous Waste Sites and Permitted Facilities* (DTSC 2019a)
- *Human Health Risk Assessment Note Number 3 – DTSC Recommended Methodology for Use of U.S. EPA Regional Screening Levels (RSLs) in Human Health Risk Assessment Process at Hazardous Waste Sites and Permitted Facilities* (DTSC 2022a)
- *Human Health Risk Assessment Note Number 4 – Guidance for Screening Level Human Health Risk Assessments* (DTSC 2022b)
- *Human Health Risk Assessment Note 10 – Toxicity Criteria* (DTSC 2019b)
- *Human Health Risk Assessment Note Number 12- Guidance for Evaluating Human Health Risk at Sites Contaminated by Petroleum Hydrocarbons and Related Chemicals of Potential Concern (COPC)* (DTSC 2021)

The HHRA framework consists of the following four basic steps (EPA 1989):

1) **Data Evaluation**: The first step consists of reviewing and evaluating available data, identifying COPCs in media at each site.
2) **Exposure Assessment**: The second step involves evaluating potential exposure pathways for COPCs and the potential human populations that could be exposed to them, either now or in the future. Exposure point concentrations (EPCs) are estimated from measured or modeled concentrations, and pathway-specific exposure parameters and assumptions are evaluated.
3) **Toxicity Assessment**: The third step comprises compiling toxicity values that characterize potential adverse health effects from exposure to COPCs and are used to estimate potential risks to human health.
4) **Risk Characterization:** The fourth step combines the results of the previous three steps to quantitatively characterize potential risks to human health associated with exposure to COPCs at the sites evaluated. Potential cancer risk and adverse noncancer health effects are estimated. Uncertainties in risk characterization are discussed.

Each step is described in the following sections.

3.1.1 Data Evaluation

Before conducting the risk assessment, the analytical results from sampling (Appendix C) were validated in a data quality evaluation report (Appendix D). The suitability of the analytical results was then evaluated for use in the risk assessment. The following data reduction steps were taken:

- Estimated values (flagged with "J" qualifiers) were treated as detected concentrations.
- Native and duplicate (field duplicates) sample pairs were reduced as follows:
  - If there were two detections, the greater of the two concentrations was used.
  - If there was one detection and one nondetection, the detected value was used.
  - If there were two nondetections, the result having the lower detection limit was used.

The data evaluation step includes the selection of human health COPCs that were included in the HHRA. Human health COPCs were identified based on an initial screening evaluation through which maximum detected concentrations (MDCs) for each analyte were compared to conservative screening levels for soil. The risk-based screening levels used to select human health COPCs are based on human health exposure (for carcinogenic and noncarcinogenic constituents) for a residential exposure scenario based on the following hierarchy:

1. DTSC Human Health Risk Assessment Note 3 value for residential soil (DTSC 2022a, Tables 1 and 2). Carcinogenic screening levels are based on a target cancer risk of 1×10^{-6}. Noncarcinogenic screening levels are the Note 3 values divided by 10 (for a hazard quotient [HQ] of 0.1).
2. EPA regional screening level (RSL) for residential soil based on target cancer risk of 1×10^{-6} and target noncancer HQ of 0.1 (EPA 2023a).
3. For oil and grease, San Francisco Regional Water Quality Control Board (SFRWQCB) screening levels residential land use of motor oil (SFRWQCB 2019, Table S-1) for soil divided by 10 (for a HQ of 0.1).

Because of the more stringent human health noncancer target HQ of 0.1 and DTSC updates to Note 3 values, the screening levels for PCBs and oil and grease (Table 3-1) are more conservative (lower) than the screening levels provided in the California SIWP (Jacobs 2021).

Table 3-1. Human Health Residential Risk-based Screening Levels

Analyte	CAS	Unit	Human Health Screening Level[a]
Method SW8082 for Polychlorinated Biphenyls (PCBs)			
Aroclor 1016	12674-11-2	µg/kg	400
Aroclor 1221	11104-28-2	µg/kg	200
Aroclor 1232	11141-16-5	µg/kg	170
Aroclor 1242	53469-21-9	µg/kg	230
Aroclor 1248	12672-29-6	µg/kg	230

Table 3-1. Human Health Residential Risk-based Screening Levels

Analyte	CAS	Unit	Human Health Screening Level[a]
Aroclor 1254	11097-69-1	µg/kg	120
Aroclor 1260	11096-82-5	µg/kg	240
Aroclor 1262	37324-23-5	µg/kg	240
Aroclor 1268	11100-14-4	µg/kg	240
Method SW9071			
Oil & Grease	O&G	mg/kg	1200

[a] Based on a target cancer risk of 1E-6 and target HQ of 0.1. Aroclor 1260 was used as a surrogate for Aroclor 1262 and Aroclor 1268.

Note: µg/kg = microgram(s) per kilogram; mg/kg = milligram(s) per kilogram; O&G = oil and grease

The COPCs that were documented in the HHRA for each site include COIs that exceed the residential risk-based screening levels.

3.1.2 Exposure Assessment

Potential exposure pathways are based on current and potential future land uses for each REC (Table 1-1). Potential future receptors are recreational users and construction workers. Although not considered to be a potential future land use, a hypothetical residential exposure scenario was considered for risk management purposes (i.e., unrestricted land use).

The following pathways are assumed to be potentially complete.:

- Future recreational users could potentially be exposed to surface soil, defined as 0 foot to 2 feet bgs, and mixed-zone soils (0 foot to 10 feet bgs), which hypothetically assumes subsurface soil is brought to the surface in the future (e.g., excavation during construction projects). Potentially complete routes of exposure to mixed-zone soil include incidental ingestion, dermal contact, and inhalation of suspended particulates (dust) and vapors volatilizing from the soil surface to air.
- Future construction workers could potentially be exposed during construction activities (e.g., excavation) to surface soil and mixed-zone soils through incidental ingestion, dermal contact, and inhalation of suspended soil particulates (dust) and vapors volatilizing from the soil surface to air.
- Hypothetical future residents could potentially be exposed to surface soil and mixed-zone soils. Potentially complete routes of exposure to soil include incidental ingestion, dermal contact, and inhalation of suspended soil particulates (dust) and vapors volatilizing from the soil surface to air.

An exposure area describes a location or area where humans might encounter one or more contaminated environmental media on a regular basis. Because of the small size of the RECs, each REC was evaluated as its own exposure area.

3.1.2.1 Exposure Point Concentrations

Data were compiled for each soil depth interval within the exposure area for the respective sites to estimate EPCs, which are the COPC concentrations considered representative of what potential receptors might be exposed to over time.

The EPCs for soil were calculated for each COPC and depth interval (surface soil and mixed-zone soil) evaluated. The data from a depth interval were grouped to calculate an upperbound average concentration for each COPC, which was used in the risk calculations as the EPC. For data sets that have sufficient data points, a 95 percent upper confidence limit (UCL) on the mean was calculated for each COPC in soil using the latest version of EPA's ProUCL software, version 5.2 (EPA 2022a, 2022b). Treatment of nondetect values in the derivation of the EPC were addressed by the ProUCL software, which evaluates several estimation methods, including Kaplan-Meier, regression on order statistics and substitution methods (where the nondetect value is replaced by the limit of detection). Additionally, skewed data sets (including left-censored data sets with nondetect observations) can be adjusted by the ProUCL software using gamma, lognormal distribution, and nonparametric methods to calculate a UCL. ProUCL input and output are provided in Appendix E.

Maximum concentrations are used as the EPCs where the data exhibit high variance, the sample size is fewer than five, there are fewer than four detected values, or the 95 percent UCL is greater than the maximum concentration (EPA 2022b).

3.1.2.2 Exposure Parameters

For the hypothetical residential exposure scenario, DTSC- and EPA-published default reasonable maximum exposure parameters (DTSC 2019a; EPA 2014) were used in the risk estimate calculations (Appendix E).

3.1.3 Toxicity Assessment

The toxicity values used in the HHRA are in accordance with the DTSC Toxicity Criteria Rule (DTSC 2018). The following DTSC (DTSC 2019b, 2022a) and EPA-recommended (EPA 2003, 2013; ECOS 2007) toxicity value selection hierarchy was used in the risk assessment for soil:

- DTSC Human Health Risk Assessment Note 3 (DTSC 2022a)
- EPA Integrated Risk Information System (IRIS) toxicity values (EPA 2021, 2023a)
- EPA Provisional Peer-Reviewed Toxicity Values (EPA 2023a)
- Other toxicity values listed in EPA RSL tables (EPA 2023a)

Oil and grease were assessed using the toxicity values presented in Table 4.2 of DTSC's Note 12 guidance (DTSC 2021) for the motor oil range of hydrocarbons. Because total petroleum hydrocarbon (TPH)-aliphatic/aromatic fractional sampling data are not available, the risk calculations assumed that oil and grease are 50 percent aromatic and 50 percent aliphatic, in accordance with DTSC Note 12 guidance (DTSC 2021).

For the construction worker exposure scenario, subchronic reference doses were used if available (EPA 2023b). If subchronic reference doses were not available, chronic reference doses were used.

Toxicity values are provided in Appendix E.

3.1.4 Risk Characterization

3.1.4.1 Risk-based Concentrations

Site-specific carcinogenic and noncarcinogenic risk-based concentrations (RBCs) were derived for the human health COPCs using the EPA RSL calculator (EPA 2023c) with site-specific inputs and DTSC toxicity values if available. The RBCs were used to calculate the risk estimates. The RBC (Appendix E) for each COPC and exposure scenario is based on a target noncancer HQ of 1 and a target cancer risk estimate of 1×10^{-6}. The RBCs were derived based on the exposure scenarios and toxicity value selection hierarchies presented, using EPA exposure equations presented in RSL User's Guide (EPA 2023b) consistent with EPA and DTSC guidance (EPA 2014; DTSC 2019b).

3.1.4.2 Cancer Risk and Noncancer Hazard Estimates

For soil, risks and hazards were calculated for each exposure scenario. Cancer risk and noncancer hazards were calculated using the following equations:

$$\text{Cancer Risk} = \text{EPC} \times \text{TRL} / \text{RBCc}$$

$$\text{HQ} = \text{EPC} \times \text{THQ} / \text{RBCnc}$$

Where:

Cancer Risk = chemical-specific cancer risk estimate (unitless)

TRL = target cancer risk level used in the derivation of the RBCc, 1×10^{-6} (or 1E-06) (unitless)

RBCc = risk-based concentrations for cancer effects (mg/kg for soil, microgram per liter [µg/L] for groundwater)

HQ = chemical-specific noncancer hazard quotient estimate (unitless)

THQ = target HQ used in the derivation of the RBCnc, 1 (unitless)

RBCnc = risk-based concentrations for noncancer effects (mg/kg for soil, µg/L for groundwater)

EPC = exposure point concentration (mg/kg for soil, µg/L for groundwater)

For each receptor, the risk estimates were summed to generate cumulative risk estimates using the following equations:

Total Excess Lifetime Cancer Risk (ELCR) Estimate = Sum of Cancer Risk Estimates for COPCs

Total Noncancer Hazard Index (HI) Estimate = Sum of Noncancer HQs for COPCs

A primary contributor to carcinogenic risk or noncancer hazard was identified if a COPC has a cancer risk exceeding 1×10^{-6} or a HQ exceeding 1. Primary contributors also include COPCs that most substantially contribute to a HI greater than 1 where the individual HQs are less than 1. Primary contributors to risk are evaluated for required action in the site-specific risk assessments.

3.1.5 Uncertainty Discussion

A number of uncertainties are inherent in the estimates of potential cancer risks and noncancer health hazards that are presented in a HHRA. Uncertainties are generally associated with the sampling strategy and site characterization process, or the assumptions and models that make up the risk assessment process. The potential effect of the uncertainties on risk estimates (i.e., overestimation or underestimation) varies from effects that are readily predicted to those that are difficult to assess. Possible uncertainties associated with each of the four steps of the HHRA (data evaluation, exposure assessment, toxicity assessment, and risk characterization) were considered. Site-specific uncertainties for each site are discussed in Sections 5 and 6.

The estimation of exposure requires many assumptions to describe potential exposure situations. There are uncertainties regarding the likelihood of exposure, frequency of contact with contaminated media, the concentration of COPCs at exposure points, and the duration and period of exposure. In general, these assumptions are upperbound assumptions, intended to be conservative, and yield an overestimate of the true risk or hazard.

As presented in the California SIWP (Jacobs 2021), some analytes were expected to have method detection limits (MDLs) that exceeded the screening levels because of laboratory analytical method limitations. Generally, the absence of these nondetected analytes with MDLs greater than the screening levels is supported by the site's operational history.

3.2 Leaching to Groundwater Evaluation

Because PCBs and oil and grease do not have screening levels in soil for protection of groundwater, the soil leaching pathway is considered incomplete.

4. Retained Easement Areas

This section summarizes the environmental review conducted by Jacobs of the retained easements and recommended next steps for closure. The environmental review included a desktop review of reasonably obtainable historical documents for the retained easement areas as well as a site reconnaissance of accessible parts of the retained easement areas.

4.1 Background

PacifiCorp retains easements for the existing transmission and distribution system and all other ancillary infrastructure and related access roads on KRRC-owned property. Existing easements on privately or federally owned property are not included in the Retained Easement PEC.

The retained easements are used for accessing, maintaining, operating, repairing, replacing, enlarging, reconstructing, or removing PacifiCorp's electrical transmission and distribution facilities. Included in the retained easements are related electrical transmission facilities, such as towers, poles, pads, anchors, supports, transformers, switchyards, vaults, substations, communications facilities, fiber optic or other communications equipment, and any other improvements or facilities associated with the management of these facilities. The retained easement area is the current physical location of the transmission facilities along with an additional width of 100 feet, as measured on the surface of the property and from each side of the transmission line or distribution facility.

4.2 Environmental Desktop Review

The scope of the environmental desktop review of the retained easements was limited to a review of previous Phase I ESAs, Phase II site investigations, a site investigation report, the Environmental Database Report, and other online database searches of regulatory agency files from the California State Water Resources Control Board's GeoTracker website (SWRCB 2023), the California DTSC's EnviroStor website (DTSC 2023), and CalEPA's portal website. Additional information regarding locations of oil and gas wells or well fields was accessed from the California Department of Conservation, Geologic Energy Management Division, and locations of underground pipelines from the U.S. Department of Transportation National Pipeline Mapping System (NPMS 2023).

Known PECs previously identified in the Phase I ESAs and site investigations within the retained easements are being addressed either through closure following the site investigation (e.g., Copco No. 2 Former Mobile Oil Containment Building and Copco No. 2 Underground Storage Tank) or through site-specific cleanup work (e.g., Copco No. 2 Wood Pile and Copco No. 2 Transformer Fire). See the *California Site Investigation Report* (Jacobs 2023b) and *Soil Removal Action Plan for California* (Jacobs 2023d) for details on these three sites (Appendix F).

4.3 Reconnaissance Survey

On April 12 to14 of 2023, two teams of qualified Jacobs staff walked accessible portions of the retained easements. During the site reconnaissance surveys, miscellaneous metal debris (rusted 55-gallon drums, 1- to 2-gallon rectangular cans, paint cans, pipes, wire/cabling, corrugated sheet metal, and fencing), wood debris (treated wood posts, beams, fencing, abandoned power poles, and miscellaneous wooden material), household debris (broken glass, bottles, and

household trash), concrete (foundation), and an area of stressed vegetation were observed. Photographs from the site reconnaissance are located in Appendix F. Based on the limited quantity of debris, none of these observations are considered RECs and the results of the site reconnaissance surveys indicate no new RECs beyond those identified previously in the Phase I ESAs and Phase II site investigations.

4.4 Recommended Actions

Because no new RECs were identified in the environmental desktop review and during the reconnaissance surveys within the retained easements, no further action is planned, and the retained easements are recommended for closure (Section 1.2).

5. Copco No. 1 Switchyard

This section summarizes the field activities and analytical laboratory results and provides the risk assessments and recommended next steps for the Copco No. 1 Switchyard.

5.1 Background

The Copco No. 1 69-kilovolt Switchyard is in an approximate 95-foot by 95-foot fenced gravel area on a bluff situated approximately 200 feet northwest of the Copco No. 1 dam (Photograph 5-1).

Photograph 5-1. Copco No. 1 Switchyard
Source: Jacobs 2023a

There are three transformers on concrete pads in the northeastern quadrant of the switchyard (Figure 5-1 and right side of Photograph 5-2) and two southernmost transformers on elevated concrete pads near the center of the switchyard (Figure 5-1 [near grid points B3 and D3] and left side of Photograph 5-2).

5.2 Field Activities

On April 11, 2023, the planned soil borings for the Copco No. 1 Switchyard were marked and cleared for utilities (Section 2). Select soil borings were moved to avoid underground utilities. A 10- by 21.5-foot concrete pad covered with approximately 2 inches of gravel was discovered in the northwest corner of the switchyard. Oil-impacted areas potentially containing PCBs were not visually observed, except for some minor discoloration on four concrete pads. The discolored areas on the four concrete pads (C1SY-CC1, C1SY-CC2, C1SY-CC4, and C1SY-CC5) and the gravel-covered concrete pad (C1SY-CC3) in the northwest corner of the switchyard were marked for sampling (Figure 5-1).

On April 17 and 18, 2023, a total of 25 soil borings were advanced with a hand trowel or by hand augering to depths of up to 1.5 feet bgs (Table 5-1; Section 2). Soil borings within the switchyard were advanced to a depth of 1.5 feet bgs, and soil samples were collected from depths of 0.0 to 0.5 foot and 1.0 to 1.5 feet bgs. Owing to the presence of cobbles, only surface soil samples were collected from a depth of 0.0 to 0.5 foot bgs at soil borings advanced outside of the switchyard (Figure 5-1). A soil sample was not collected from boring C1SY-D5 because large cobbles were abundant and there was insufficient finer-grained soil at this location.

Photograph 5-2. Copco No. 1 Switchyard Transformers

Source: Jacobs 2023a

Concrete samples were collected from four concrete pads with transformers (Figure 5-1; Section 2). Concrete from the center pad of three in the northeast quadrant of the switchyard was not sampled because the transformer and concrete pad appeared to be newer and because the concrete pad did not show signs of potential contamination.

Table 5-1. Copco No. 1 Switchyard Sample Location Summary

Location ID	Sample Intervals (feet bgs)	Depth (feet)	Location ID	Sample Intervals (feet bgs)	Depth (feet)
C1SY-A1	0-0.5	0.5	C1SY-D1	0-0.5	0.5
C1SY-A2	0-0.5	0.5	C1SY-D2	0-0.5, 1.0-1.5	1.5
C1SY-A3	0-0.5	0.5	C1SY-D3	0-0.5, 1.0-1.5	1.5
C1SY-A4	0-0.5	0.5	C1SY-D4	0-0.5, 1.0-1.5	1.5
C1SY-A5	0-0.5	0.5	C1SY-D5	No sample collected	
C1SY-B1	0-0.5	0.5	C1SY-E1	0-0.5	0.5
C1SY-B2	0-0.5, 1.0-1.5	1.5	C1SY-E2	0-0.5	0.5
C1SY-B3	0-0.5, 1.0-1.5	1.5	C1SY-E3	0-0.5	0.5
C1SY-B4	0-0.5, 1.0-1.5	1.5	C1SY-E4	0-0.5	0.5
C1SY-B5	0-0.5	0.5	C1SY-E5	0-0.5	0.5
C1SY-C1	0-0.5	0.5	C1SY-CC1	0-0.02	0.02
C1SY-C2	0-0.5, 1.0-1.5	1.5	C1SY-CC2	0-0.02	0.02
C1SY-C3	0-0.5, 1.0-1.5	1.5	C1SY-CC3	0-0.02	0.02
C1SY-C4	0-0.5, 1.0-1.5	1.5	C1SY-CC4	0-0.02	0.02
C1SY-C5	0-0.5	0.5	C1SY-CC5	0-0.02	0.02

Note:
bgs = below ground surface

5.3 Analytical Results

The analytical results were compared to the human health screening levels (Appendix C) described in Section 3.1. As summarized in Table C-1, PCBs were not detected in the concrete samples collected from beneath the transformers (C1SY-CC1, C1SY-CC2, C1SY-CC4, and C1SY-CC5) and the concrete pad discovered in the northwest corner of the switchyard (C1SY-CC3). Additionally, PCBs were detected in only one of 37 soil samples collected at the Copco No. 1 Switchyard. The sole PCB detection was Aroclor 1260 in the shallow soil sample (0.0 to 0.5 foot bgs) collected from boring C1SY-C3. Aroclor 1260 was detected at an estimated concentration of 48 micrograms per kilogram (µg/kg), which is below the applicable human health soil screening level of 240 µg/kg (Table 3-1). Aroclor 1260 was not detected in the duplicate shallow soil sample collected from boring C1SY-C3.

Oil and grease were detected in soil and concrete samples. However, only the deep soil sample (1.0 to 1.5 foot bgs) collected from boring C1SY-C4 was found to exceed the human health screening level for oil and grease (Table 5-2, Table C-1 in Appendix C, and Figure 5-1).

Table 5-2. Copco No. 1 Switchyard Location with Compounds that Exceed Human Health Screening Levels

Location ID	COIs that Exceed Human Health Screening Level	Location ID	COIs that Exceed Human Health Screening Level
C1SY-A1	None	C1SY-D1	None
C1SY-A2	None	C1SY-D2	None
C1SY-A3	None	C1SY-D3	None
C1SY-A4	None	C1SY-D4	None
C1SY-A5	None	C1SY-D5	N/A
C1SY-B1	None	C1SY-E1	None
C1SY-B2	None	C1SY-E2	None
C1SY-B3	None	C1SY-E3	None
C1SY-B4	None	C1SY-E4	None
C1SY-B5	None	C1SY-E5	None
C1SY-C1	None	C1SY-CC1	None
C1SY-C2	None	C1SY-CC2	None
C1SY-C3	None	C1SY-CC3	None
C1SY-C4	Oil and Grease	C1SY-CC4	None
C1SY-C5	None	C1SY-CC5	None

Note:

N/A = not applicable, no sample collected

5.4 Site-Specific Human Health Risk Assessment

5.4.1 Data Evaluation

Aroclor 1260 and oil and grease were detected at the Copco No. 1 Switchyard (Table 5-3). The single detection of Aroclor 1260 did not exceed the human health screening level and was identified in the shallow soil sample (0.0 to 0.5 foot bgs) of boring C1SY-C3. Aroclor 1260 was not detected in the corresponding duplicate shallow soil sample collected from boring C1SY-C3.

Only the deep soil sample (1.0 to 1.5 feet bgs) collected from boring C1SY-C4 exceeded the human health screening levels for oil and grease. Therefore, the human health COPC in soil at the Copco No. 1 Switchyard is oil and grease (Table 5-3).

5.4.2 Exposure Assessment

Only the most conservative hypothetical future residential exposure scenario was evaluated quantitatively. Default DTSC and EPA exposure parameters for a residential receptor were used in the risk calculations (Appendix E).

5.4.3 Toxicity Evaluation

No COPCs requiring surrogate toxicity values were identified.

5.4.4 Human Health Risk Assessment Results

The HHRA analysis indicates that for the hypothetical future residential exposure scenario, the HI does not exceed 1, for surface soil (0 to 2 ft bgs) (Table 5-3). No carcinogenic COPCs were identified.

No further action is required for soil at Copco No. 1 Switchyard to address human health risk concerns for soil.

5.4.5 Uncertainty Discussion

In general, the number and location of soil samples are considered adequate for risk assessment purposes, and the types of COPCs and EPCs identified are considered representative of potential releases within the Copco No. 1 Switchyard. Because samples were collected at suspected release locations, the exposure area data are likely biased high and the risks potentially overestimated.

Because the aromatic and aliphatic fraction speciation of oil and grease is unknown, conservative DTSC recommended defaults were used, which likely overestimates the content of the aromatic fraction.

5.4.6 Human Health Risk Assessment Conclusions

Estimated risks are below target thresholds for hypothetical future residents from potential exposure to soil at the Copco No. 1 Switchyard. The hypothetical future residential exposure scenario is more conservative than the more likely future passive recreational and future construction worker exposure scenarios and was considered for risk management evaluation of unrestricted land use. Concentrations of PCBs and oil and grease in the concrete samples were below human health screening levels. Consequently, no further action is required.

5.5 Recommended Actions

No further action is required at the Copco No. 1 Switchyard, which is recommended for closure (Section 1.2) because PCBs (Aroclor 1260) were detected in only one soil sample but not in the corresponding duplicate sample, because the single PCB detection in site soil was below the human health screening level, and because the estimate risks from the HHRA indicate that detected oil and grease concentrations are below target thresholds.

Table 5-3. Human Risk Estimates for COPCs in Soil at Copco No. 1 Switchyard

Type	Detected COI	CAS	MDC (mg/kg)	Screening Levela (mg/kg)	COPC?	EPC (mg/kg)	EPC Basis	Background Related?	Hypothetical Future Resident			
									RBC Cancer (mg/kg)	RBC Noncancer (mg/kg)	Cancer Risk	Noncancer Hazard Index
TPH	Oil and Grease	O&G	3.7E+03	1.2E+03	Yes	7.1E+02	95% Student's-t UCL	No	--	--	--	--
	– O&G aromatics	--	--	--	Yes	3.56E+02	Note b	No	--	1.8E+03	--	2.0E-01
	– O&G aliphatics	--	--	--	Yes	1.78E+02	Note b	No	--	1.6E+05	--	1.1E-03
PCB	Aroclor 1260	11096-82-5	4.8E-02	2.4E-01	No	--	--	--	--	--	--	--
Cumulative Risk and Hazard:											N/A	0.2

Notes:

[a] Screening levels for human health are presented in Section 3.1.1 and are based on a target hazard quotient of 0.1 and/or a target cancer risk of 1E-6.

[b] Composition of the percent aromatic (50%) and aliphatic (50%) was assumed based on DTSC guidance (DTSC 2021).

Bold indicates cancer risk exceeds 1E-6 or hazard quotient exceeds 1.

-- = not applicable

bgs = below ground surface

CAS = chemical abstract service

COI = contaminant of interest

COPC = chemical of potential concern

EPC = exposure point concentration

MDC = maximum detected concentration

mg/kg = milligram(s) per kilogram

N/A = not applicable; no carcinogenic COPCs

O&G = oil and grease

RBC = risk-based concentration

TPH = total petroleum hydrocarbon

UCL = upper confidence limit

LEGEND

- Limits of SIWP Supplement No. 1
- Switchyard Boundary
- Sampling Grid
- Concrete Pad
- Sample Location with Screening Level Exceedance
- Sample Location without Screening Level Exceedance

Location: C1SY-01
Analyte: O&G
O&G = Oil and Grease

N

0 12.5 25
Feet

FIGURE 5-1
Copco No. 1 Switchyard and Sampling Grid
Lower Klamath Hydroelectric Project

Jacobs

6. Iron Gate Substation

This section summarizes the field activities and analytical laboratory results and provides the risk assessments and recommended next steps for closure of the Iron Gate Substation.

6.1 Background

The Iron Gate Substation is an approximately 25-foot by 60-foot area located within a larger fenced area on top of the Iron Gate Powerhouse. The 69-kilovolt substation sits on a concrete structure, and the oil filled portions of the transformer sit over a gravel-filled concrete catch basin (Photograph 6-1). The catch basin drains to an oil/water separator below the concrete structure. As part of ongoing demolition activities, the Iron Gate Powerhouse and associated substation, including the transformer, concrete pad, and gravel/sediment in the catch basin will be decommissioned, demolished, and removed by the KRRC.

Photograph 6-1. Iron Gate Substation
Source: Jacobs 2023a

6.2 Field Activities

On April 12, 2023, the planned soil borings for the Iron Gate Substation were marked and cleared for utilities. Soil borings IGSY-01 and IGSY-02 (Photograph 6-2) were in a grassy area directly below drainpipes that received precipitation runoff from the concrete structure beneath the transformer. This area is bounded by a control building to the north, a paved access road to

the east, the northern wall of the powerhouse to the south, and a concrete sidewalk to the west (Figure 6-1).

Photograph 6-2. Looking Down (North is Right) at Soil Boring IGSY-02 from Concrete Structure
Source: Jacobs 2023a

Fine-grained material within gravel surrounding the transformer (gravel samples) was collected from two locations (IGSY-03; IGSY-04) considered likely to have received PCB oil from a potential transformer release. Gravel samples from IGSY-03 (Photograph 6-3) were collected from within the catch basin and beneath the oil-filled portions of the transformer. Gravel samples from IGSY-04 were collected from the southern side of the catch basin and beneath the drain valve for the transformer (Figure 6-1).

Photograph 6-3. Looking South at Sample Locations IGSY-03 (Flagged) and IGSY-CC2 (Concrete Under Transformer Fins, Partially Visible)
Source: Jacobs 2023a

Concrete samples (IGSW-CC1 to IGSY-CC3) were collected from three locations considered likely to have received PCBs or oil and grease from a potential transformer release (Table 6-1). Concrete sample locations were based on visual observations for potential residual oil adjacent to the transformer (sample locations IGSY-CC1 and IGSY-CC2 [Photograph 6-3]) and at the low point drain (sample location IGSY-CC3) in the northeast corner of the concrete structure.

On April 18, 2023, soil borings IGSY-01 and ISSY-02 were advanced via hand auger to depths of 1.5 feet bgs. Soil samples were collected from depths of 0.0 to 0.5 foot bgs and 1.0 to 1.5 feet bgs. A hand trowel was used to collect fine-grained material from sample locations IGSY-03 and IGSY-04 in the immediate vicinity of the transformer and from sample depths of 1.5 feet and 0.5 foot bgs (Table 6-1). Sample location IGSY-04 was terminated at 0.5 foot bgs because a buried grounding wire below the drain valve could not be safely located. Three concrete samples were also collected at sample locations IGSY-CC1, IGSY-CC2, and IGSY-CC3 (Table 6-1). The gravel and concrete samples were collected according to the procedures specified in Section 2 (Field Activities).

Table 6-1. Iron Gate Substation Sample Location Summary

Location ID	Sample Intervals (feet below ground surface)	Depth (feet)	Comments
IGSY-01	0-0.5, 1.0-1.5	1.5	Soil from grassy area north of concrete structure.
IGSY-02	0-0.5, 1.0-1.5	1.5	Soil from grassy area north of concrete structure.
IGSY-03	0-0.5, 1.0-1.5	1.5	Fine-grained material in gravel from beneath north and west transformer fins.
IGSY-04	0-0.5	0.5	Fine-grained material in gravel from beneath transformer drain valve. Not extended because of buried ground wire below valve.
IGSY-CC1	0-0.02	0.02	Concrete around the drain west of transformer.
IGSY-CC2	0-0.02	0.02	Concrete beneath north transformer fins.
IGSY-CC3	0-0.02	0.02	Concrete around the low point drain.

6.3 Analytical Results

The analytical results (Appendix C) for soil samples collected from the borings in the grassy area north of the substation (IGSY-01, IGSY-02) were compared against the human health screening levels (Section 3.1). Human health screening levels were not exceeded for PCBs in the soil samples collected from boring IGSY-01 (Table 6-2). Human health screening levels were exceeded for PCBs (Aroclor 1260) in the shallow soil sample (0.0 to 1.5 feet bgs) collected from boring IGSY-02 but were not exceeded in the deep sample (1.0 to 1.5 feet bgs) collected from boring IGSY-02 (Table 6-2). Human health screening levels for oil and grease were not exceeded for soil samples collected from soil borings IGSY-01 and IGSY-02.

The gravel and concrete samples collected within the substation were found to contain low concentrations of PCBs and oil and grease. Gravel samples (IGSY-03 and IGSY-04) contained PCBs (Aroclor 1254 and Aroclor 1260) ranging in concentration from 67 to 190 µg/kg. One of the

three concrete samples (IGSY-CC1) contained PCBs (Aroclor 1254 and Aroclor 1260) at estimated concentrations of 6 and 6.4 µg/kg. Oil and grease detections ranged in concentration from 9,080 to 16,800 mg/kg in the gravel samples and from 133 to 31,600 mg/kg in the concrete samples.

PCBs are regulated by the Toxic Substances Control Act (TSCA) (Title 40 *Code of Federal Regulations* 761). The disposal criterion for TSCA-regulated waste is greater than or equal to 50 mg/kg. Because PCB concentrations in the gravel and concrete samples are less than 50 mg/kg, the gravel and concrete are not TSCA-regulated and do not require disposal in a TSCA-regulated facility. This material is also not a California hazardous waste (i.e., non-RCRA hazardous waste) in accordance with Title 22 *California Code of Regulations* Section 66261.113.

Table 6-2. Iron Gate Substation Sample Locations with Compounds that Exceed Human Health Screening Levels

Location ID	COIs that Exceed Human Health Screening Levels
IGSY-01	None
IGSY-02	PCBs (Aroclor 1260)
IGSY-03*	PCBs (Aroclor 1254), Oil and Grease
IGSY-04*	PCBs (Aroclor 1254), Oil and Grease
IGSY-CC1*	None
IGSY-CC2*	Oil and Grease
IGSY-CC3*	None

Notes:

* Sample location is in an area to be removed during dam removal activities by the Klamath River Renewal Corporation.

Note: PCBs = polychlorinated biphenyls

6.4 Site-Specific Human Health Risk Assessment

6.4.1 Data Evaluation

Analytical results for soil and gravel samples were considered in the HHRA. The MDCs of oil and grease, Aroclor 1254, and Aroclor 1260 exceed the human health screening levels (Table 6.3). Therefore, the human health COPCs in soil and gravel at the Iron Gate Substation are oil and grease, Aroclor 1254, and Aroclor 1260.

6.4.2 Exposure Assessment

The hypothetical future residential and the construction worker exposure scenarios were evaluated quantitatively. Default DTSC and EPA exposure parameters were used in the risk calculations (Appendix E).

Additional site-specific parameters were assumed for the future construction worker exposure scenario based on the input requirement in the RSL calculator. For general construction activities

(excavation and grading), "soil-other construction activities" were selected for the RSL calculator, and the following site-specific parameters were entered as inputs:

- Total area: 0.5 acre (minimum value allowed by RSL calculator)
- Area dozed: 0.032 acre (approximate size of area: 25 feet by 60 feet)
- Area graded: 0.032 acre (approximate size of area: 25 feet by 60 feet)
- Area excavated: 128 square meters (25 by 55 feet)
- Dozing and grading blade length: 3.7 meters (based on standard equipment)
- Average depth of excavation: 3 meters

6.4.3 Toxicity Evaluation

No COPCs required surrogate toxicity values.

6.4.4 Human Health Risk Assessment Results

The HHRA analysis indicates that for the hypothetical future residential exposure scenario, the cumulative ELCR does not exceed 1E-06, but the HI of 4 exceeds the target HI of 1 for surface soil and gravel (Table 6-3). For the construction worker exposure scenario, the cumulative ELCR does not exceed 1E-06 and the HI does not exceed 1 for surface soil and gravel.

Oil and grease is identified as the primary contributor to the HI for the hypothetical future residential exposure scenario based on the estimated composition of aromatic fractions. No primary contributors were identified for the construction worker exposure scenario.

6.4.5 Uncertainty Discussion

In general, the number and location of soil and gravel samples are considered adequate for risk assessment purposes, and the types of COPCs and EPCs identified are considered representative of potential releases from the transformer and substation. Because samples were collected at suspected release locations, the exposure area data are likely biased high and the risks potentially overestimated. Because the aromatic and aliphatic fraction speciation of oil and grease is unknown, conservative DTSC recommended defaults were used which likely overestimates the content of aromatic fractions.

6.4.6 Human Health Risk Assessment Conclusions

Risks were evaluated for hypothetical future residents and construction workers from potential exposure to soil north of the substation and gravel within the substation. The hypothetical future residential exposure scenario is more conservative than the more likely future passive recreational exposure scenario and was considered for risk management evaluation of unrestricted land use. Potential cancer risks for hypothetical future residents and construction workers do not exceed the target cancer risk of 1E-06 in soil and gravel. The potential noncancer hazards exceed the target of 1 for the hypothetical future residential exposure scenario. Oil and grease is identified as the primary contributor to the HI. The potential noncancer hazards do not exceed the target of 1 for the construction worker exposure scenario.

6.5 Recommended Actions

The HHRA indicates that the noncancer HI exceeds the target HI of 1 for the hypothetical future residential exposure scenario. The primary contributor is oil and grease; PCBs do not exceed target risk thresholds for human health.

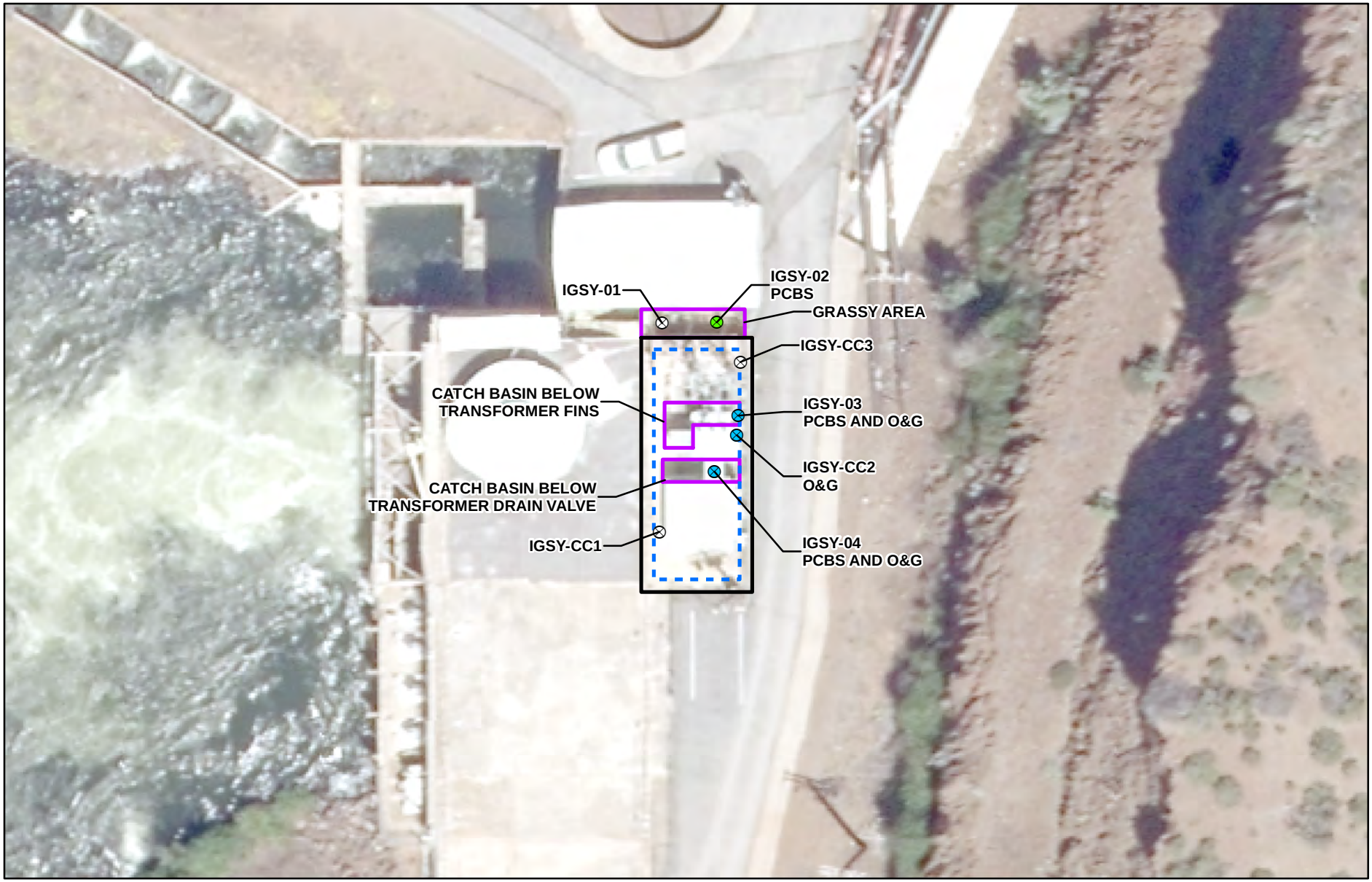
In the grassy area north of the transformer and switchyard, detected concentrations of oil and grease did not exceed human health screening levels. For PCBs, the target risk threshold for human health was not exceeded. No further action is required in the grassy area north of the transformer and switchyard.

The gravel and concrete that will be removed during demolition of the Iron Gate Powerhouse does not require any special handling beyond appropriate offsite disposal as is already planned by the KRRC. Therefore, no further action is required for gravel and concrete within the substation. The gravel and concrete samples collected from beneath the transformer and at locations that would have been impacted by PCB oil from a transformer release contain PCBs at concentrations less than TSCA and California hazardous waste criteria of 50 mg/kg. Therefore, the transformer and substation can be decommissioned and demolished with the powerhouse.

Table 6-3. Human Health Risk Estimates for COPCs in Soil, Iron Gate Switchyard

Type	Detected COI	CAS	MDC (mg/kg)	Screening Level[a] (mg/kg)	COPC?	EPC (mg/kg)	EPC Basis	Background Related?	Hypothetical Future Resident				Construction Worker			
									RBC Cancer (mg/kg)	RBC Noncancer (mg/kg)	Cancer Risk	Noncancer Hazard Index	RBC Cancer (mg/kg)	RBC Noncancer (mg/kg)	Cancer Risk	Noncancer Hazard Index
TPH	Oil and Grease	O&G	2.6E+04	1.2E+03	Yes	1.5E+04	95% Student's-t UCL	No	--	--	--	--	--	--	--	--
	– O&G aromatics	--	--	--	Yes	7.5E+03	Note b	No	--	1.8E+03	--	4.2E+00	--	7.2E+03	--	1.0E+00
	– O&G aliphatics	--	--	--	Yes	3.7E+03	Note b	No	--	1.6E+05	--	2.4E-02	--	1.0E+07	--	3.7E-04
PCB	Aroclor 1254	11097-69-1	1.9E-01	1.2E-01	Yes	1.4E-01	95% KM (t) UCL	No	2.4E-01	1.2E+00	5.8E-07	1.2E-01	7.9E+00	7.0E+00	1.8E-08	2.0E-02
PCB	Aroclor 1260	11096-82-5	2.5E-01	2.4E-01	Yes	1.2E-01	95% KM (t) UCL	No	2.4E-01	--	5.1E-07	--	8.1E+00	--	1.5E-08	--
Cumulative Risk and Hazard:											1E-06	**4**			3E-08	**1**

Notes:
[a] Screening levels for human health are presented in Section 3.1.1 and are based on a target hazard quotient of 0.1 and/or a target cancer risk of 1E-6.
[b] Composition of the percent aromatic (50%) and aliphatic (50%) was assumed based on DTSC guidance (DTSC 2021).
Bold indicates cancer risk exceeds 1E-6 or hazard quotient exceeds 1.
-- = not applicable
bgs = below ground surface
CAS = chemical abstract service
COI = contaminant of interest
COPC = chemical of potential concern
EPC = exposure point concentration
MDC = maximum detected concentration
mg/kg = milligram(s) per kilogram
O&G = oil and grease
RBC = risk-based concentration
TPH = total petroleum hydrocarbon
UCL = upper confidence limit



LEGEND

- Limits of SIWP Supplement No. 1
- Swithyard Boundary
- Site Feature
- Sample Location with Screening Level Exceedance
- Sample Location with Screening Level Exceedance to be Removed during Dam Removal Activities by the KRRC
- Sample Location without Screening Level Exceedance

Location: IGSY-01
Analyte: O&G
O&G = Oil and Grease
PCBs = Polychlorinated Biphenyls

0 15 30
Feet

N

FIGURE 6-1
Iron Gate Substation Sample Locations
Lower Klamath Hydroelectric Project

Jacobs

\\DC1VS01\GISPROJ\P\PACIFICORP\KLAMATH_DAM_REMOVAL_REMEDIATION\MAPFILES\WORKING\SIR_SUPPLEMENT\FIG_6-1_IRONGATE_SWITCHYARD.MXD ED035443 8/4/2023 10:21:10 AM

7. Summary of Recommendations

This section summarizes the recommendations for further action at each of the three sites assessed in accordance with the California SIWP Supplement (Jacobs 2023a). On the basis of the analytical results and risk assessments, the three sites are recommended for closure under a process developed between PacifiCorp, the KRRC, and the State of California, thereby satisfying the requirements of the Agreement (Table 7-1).

The rationale for recommended closure is summarized as follows:

- **Retained Easements**: These retained easements are recommended for closure because no new RECs were identified during the desktop review and reconnaissance surveys of the retained easements.
- **Copco No. 1 Switchyard**: The switchyard is recommended for closure because the estimated risks from the HHRA are less than the target thresholds. Consequently, no further action is required.
- **Iron Gate Substation**: The substation is recommended for closure. The grassy area north of the powerhouse is recommended for closure because detected PCB concentrations did not exceed the target risk threshold for human health and because oil and grease concentrations were less than the screening levels. The analytical results for gravel and concrete samples collected from locations that would have been impacted by PCB oil from a transformer release did not contain PCBs at TSCA or California hazardous waste levels (50 mg/kg), which allows for decommissioning and demolition of the transformer and switchyard with the powerhouse.

Table 7-1. Recommended Actions

Site/REC	Constituents of Concern after Risk Assessments	Recommended Action
Retained Easements	N/A	Close site. No new recognized environmental conditions were identified.
Copco No. 1 Switchyard	None	Close site. Oil and grease was a COPC retained for risk assessment, but the estimated risks from the HHRA are below target thresholds. Consequently, no further action is required.
Iron Gate Substation	None	Close site. The transformer and the concrete pad and gravel within the substation can be removed and disposed of as planned for the structures at the Iron Gate Powerhouse. No further action is required north of the switchyard because detected PCB concentrations did not exceed the target risk threshold for human health and because oil and grease concentrations were less than the screening levels.

Note:

N/A = not applicable because no risk assessment was performed; only visual inspections of these areas were performed.

8. References

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Appendix A
Siskiyou County Well Permits

Siskiyou County Community Development-Environmental Health Division
806 South Main Street, Yreka CA 96097
Telephone: (530) 841-2100 FAX: (530) 841-4076

T 48N R 4W S 29

WATER WELL PERMIT

PERMIT# W 23036

APPLICANT (Must be licensed contractor or property owner and must be legible)

Name Klamath River Renewal Corporation

Address 2001 Addison Street, Suite 300, Office 317

Mailing Address 2001 Addison Street, Suite 300, Office 317

City, State, Zip Code Berkeley, CA 94704

Telephone 510-560-5079

Well Type — **Annular Seal Depth**

- ☐ Domestic ....20 foot minimum
- ☐ Industrial.................... 50 foot minimum
- ☐ Agricultural.................... 20 foot minimum
- ☐ Public....................50 foot minimum
- ☐ Monitoring.................... as approved #..............
- ☐ Deepening....................n/a
- ☐ Destruction....................n/a
- ■ Soil bores.................... as approved #. 25
- ☐ Other.................... as approved

Minimum thickness of annular space seal is 2 inches

A PLOT PLAN MUST be submitted on an 81/2 x 11 sheet of paper. It must include all property boundaries, waterways, roads, septic systems and structures, location of the proposed well in relationship to the property boundaries.

Permit Conditions

- Well driller must provide a minimum of 24 hours notice prior to installing or placing annular seal.
- All wells must be drilled under a C-57 license
- Applicant/well driller is responsible for maintaining all setbacks as approved by on location map below including a minimum of 100 feet from any established on-site sewage disposal location.
- Owner and well contractor are required to submit a completed well log within 30 days of well completion.
- This permit does not guarantee issuance of any other development permits or land use requests for this property.
- This permit expires six months from the date of issuance.

Owner/Contractor Signatures

SIGNATURE OF OWNER: ***(required on all applications)***

I am the owner of the property and certify that the information contained herein is accurate. I understand that this application will become a permit upon review and approval by the Environmental Division. I understand that well construction may not begin prior to receiving a permit and all terms and conditions apply. I hereby authorize SISKIYOU COUNTY to enter the property for inspection purposes.

I hereby authorize the contractor listed herein to obtain the permit.

[signature] 2/23/2023
Signature Date

Signature of Contractor ***(required on all applications)***
I certify that I possess a valid C-57 contractor's license that is in full force and effect. I certify that I have read this application and the above information is correct. I agree to comply with all Siskiyou County Ordinances and State Laws relating this well construction. I understand that this application will become a permit upon review and approval by the Environmental Division. I understand that well construction may not begin prior to receiving a permit and all terms and conditions apply.

Contractor [signature] Date 02/23/2023

Property Location

Property Owner Klamath River Renewal Corporation

Assessors parcel # 004-050-380

Location Copco No. 1 Dam Switchyard

Parcel Size 321 acres

WELL CONTRACTOR

Name Not applicable (hand augering only)

Mailing Address

City, State, Zip Code

Telephone

License #

FEES-Subject to Change

Water Well permit....................$360
Water Well Deepening....................$185
Water Well destruction....................$185
Monitoring Well(s) construction or destruction
and Soil bores.................... First three $360
$75 for each additional bore/MW construction/destruction

For Official Use Only

	Date	Initials
Property Owner Verification	4.10.23	ASV
Set back Requirements	4.20-23	ASV
Flood	4.10.23	ASV
Zoning	4.10.23	ASV

Received by KB Date 4-6-23

Fee Received 2,010

Permission is hereby granted for the above well work in accordance with all State and County laws and standards as provided in Siskiyou County Code, Title 5, Chapter 8 and any conditions as set forth in this permit.

Issued by [signature] Date 4/10/23

Seal Inspection Date

Seal Depth

Final Inspection by Date

Inspection Notes:

Date Well Log Received Log #

LOCATION MAP
(to be completed by department)

See attached site map.

Siskiyou County Community Development-Environmental Health Division

806 South Main Street, Yreka CA 96097
Telephone: (530) 841-2100 FAX: (530) 841-4076

T 47N R 5W S 9

WATER WELL PERMIT

PERMIT# w23037

APPLICANT (Must be licensed contractor or property owner and must be legible)

Name Klamath River Renewal Corporation

Address 2001 Addison Street, Suite 300, Office 317

Mailing Address 2001 Addison Street, Suite 300, Office 317

City, State, Zip Code Berkeley, CA 94704

Telephone 510-560-5079

Well Type — **Annular Seal Depth**

- ☐ Domestic ..... 20 foot minimum
- ☐ Industrial..... 50 foot minimum
- ☐ Agricultural..... 20 foot minimum
- ☐ Public..... 50 foot minimum
- ☐ Monitoring..... as approved #.....
- ☐ Deepening..... n/a
- ☐ Destruction..... n/a
- ☐ Soil bores..... as approved # 3
- ☐ Other..... as approved

Minimum thickness of annular space seal is 2 inches

A PLOT PLAN MUST be submitted on an 81/2 x 11 sheet of paper. It must include all property boundaries, waterways, roads, septic systems and structures, location of the proposed well in relationship to the property boundaries.

Permit Conditions

- Well driller must provide a minimum of 24 hours notice prior to installing or placing annular seal.
- All wells must be drilled under a C-57 license
- Applicant/well driller is responsible for maintaining all setbacks as approved by on location map below including a minimum of 100 feet from any established on-site sewage disposal location.
- Owner and well contractor are required to submit a completed well log within 30 days of well completion.
- This permit does not guarantee issuance of any other development permits or land use requests for this property.
- This permit expires six months from the date of issuance.

Owner/Contractor Signatures

SIGNATURE OF OWNER: ***(required on all applications)***

I am the owner of the property and certify that the information contained herein is accurate. I understand that this application will become a permit upon review and approval by the Environmental Division. I understand that well construction may not begin prior to receiving a permit and all terms and conditions apply. I hereby authorize SISKIYOU COUNTY to enter the property for inspection purposes.

I hereby authorize the contractor listed herein to obtain the permit.

Mark Bondon 2/23/2023
Signature Date

Signature of Contractor ***(required on all applications)***

I certify that I possess a valid C-57 contractor's license that is in full force and effect. I certify that I have read this application and the above information is correct. I agree to comply with all Siskiyou County Ordinances and State Laws relating this well construction. I understand that this application will become a permit upon review and approval by the Environmental Division. I understand that well construction may not begin prior to receiving a permit and all terms and conditions apply.

Contractor Date 02/23/2023

Property Location

Property Owner Klamath River Renewal Corporation

Assessors parcel # 041-060-140

Location Iron Gate Dam Switchyard

Parcel Size 668 acres

WELL CONTRACTOR

Name Not Applicable (hand augering only)

Mailing Address

City, State, Zip Code

Telephone

License #

FEES-Subject to Change

Water Well permit..... $360
Water Well Deepening..... $185
Water Well destruction..... $185
Monitoring Well(s) construction or destruction and Soil bores..... First three $360
$75 for each additional bore/MW construction/destruction

For Official Use Only

	Date	Initials
Property Owner Verification	4.10.23	AJV
Set back Requirements	4.10.23	AJV
Flood	4.10.23	AJV
Zoning	4.10.23	AJV

Received by MB Date 4.6.23

Fee Received $360

Permission is hereby granted for the above well work in accordance with all State and County laws and standards as provided in Siskiyou County Code, Title 6 Chapter 8 and any conditions as set forth in this permit.

Issued by [signature] Date 4/10/23

Seal Inspection Date

Seal Depth

Final Inspection by Date

Inspection Notes:

Date Well Log Received Log #

LOCATION MAP

(to be completed by department)

See attached site map

Appendix B
Boring Logs

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-A1	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-A2	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Dark Brown (10YR 3/3), Moist , Fine Grained to Coarse Angular to Subangular Mostly Gravel Fine Grained to Coarse Angular to Subangular Some Sand Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-A3	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/18/2023 — LOGGER : K.Johnson,A.Vogt

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-A4	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-A5	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project | LOCATION : JC Boyle Substation Switchyard

COORDINATES : *pending* | GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs | DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- | Start : 4/18/2023 | END : 4/18/2023 | LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-B1	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-B2	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-B3	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : A.Vogt,K.Johnson,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 1 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-B4	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-B5	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project | LOCATION : JC Boyle Substation Switchyard

COORDINATES : *pending* | GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs | DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- | Start : 4/18/2023 | END : 4/18/2023 | LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-C1	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-C2	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Brown (10YR 4/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subrounded Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-C3	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Dark Brown (10YR 3/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subangular Some Gravel Fine Grained to Medium Subangular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-C4	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Dark Brown (10YR 3/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subangular Some Gravel Fine Grained to Medium Subangular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-C5	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project | LOCATION : JC Boyle Substation Switchyard

COORDINATES : *pending* | GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs | DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- | Start : 4/18/2023 | END : 4/18/2023 | LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Dark Brown (10YR 3/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subangular Some Gravel Fine Grained to Medium Subangular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-D1	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Dark Brown (10YR 3/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subangular Some Gravel Fine Grained to Medium Subangular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-D2	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) Dark Brown (10YR 3/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subangular Some Gravel Fine Grained to Medium Subangular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-D3	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH CLAY (GW-GC) Dark Brown (10YR 3/3), Moist ,Medium Dense Fine Grained to Coarse Angular to Subangular Some Gravel Firm Mostly Clay	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-D4	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH CLAY AND SAND (GW-GC) Brown (10YR 4/3), Moist ,Medium Dense Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-E1	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH CLAY AND SAND (GW-GC) Brown (10YR 4/3), Moist ,Medium Dense Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-E2	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH CLAY AND SAND (GW-GC) Brown (10YR 4/3), Moist ,Medium Dense Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-E3	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH CLAY AND SAND (GW-GC) Brown (10YR 4/3), Moist ,Medium Dense Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-E4	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Copco No. 1 Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/17/2023 — END : 4/17/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH CLAY AND SAND (GW-GC) Brown (10YR 4/3), Moist ,Medium Dense Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	C1SY-E5	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project | LOCATION : JC Boyle Substation Switchyard

COORDINATES : *pending* | GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs | DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- | Start : 4/18/2023 | END : 4/18/2023 | LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				WELL-GRADED GRAVEL WITH CLAY AND SAND (GW-GC) Brown (10YR 4/3), Moist ,Medium Dense Mostly Gravel Fine Grained to Coarse Angular to Subrounded Some Sand Firm Little Silt	
				Boring terminated at 0.5 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	IGSY-01	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Iron Gate Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/18/2023 — END : 4/18/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	**SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description**	**COMMENTS**

PROJECT NUMBER:	BORING NUMBER:	
D3514100	IGSY-02	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Iron Gate Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/18/2023 — END : 4/18/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	**SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description**	**COMMENTS**

PROJECT NUMBER:	BORING NUMBER:	
D3514100	IGSY-03	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : Iron Gate Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/18/2023 — END : 4/18/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	**SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description**	**COMMENTS**

PROJECT NUMBER:	BORING NUMBER:	
D3514100	JBSY-A5	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : JC Boyle Substation Switchyard

COORDINATES : *pending* — GROUND ELEVATION : *pending*

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT:

WATER LEVEL : --- — Start : 4/18/2023 — END : 4/18/2023 — LOGGER : K.Johnson,A.Vogt,K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	**SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description**	**COMMENTS**

Appendix C
Analytical Laboratory Results

Appendix C1
Laboratory Results

Table C-1. Copco No. 1 Switchyard Analytical Results

			Location	C1SY-A1	C1SY-A2	C1SY-A2	C1SY-A3	C1SY-A4	C1SY-A5	C1SY-B1	C1SY-B2	C1SY-B2	C1SY-B3	C1SY-B3	C1SY-B4	C1SY-B4	C1SY-B5	C1SY-C1
			Sample Date	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/18/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/18/2023	4/17/2023
			Depth Interval	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	0 - 0.5
			Sample Type	N	N	FD	N	N	N	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Human Health Screening Level[a]**															
SW8082																		
Aroclor 1016	12674-11-2	µg/kg	400	9 U	9 U	9.1 U	8.8 U	8.9 U	9.6 U	9 U	9 U	8.7 U	8.9 U	9.4 U	8.7 U	9.7 U	10 U	9.1 U
Aroclor 1221	11104-28-2	µg/kg	200	9 U	9 U	9.1 U	8.8 U	8.9 U	9.6 U	9 U	9 U	8.7 U	8.9 U	9.4 U	8.7 U	9.7 U	10 U	9.1 U
Aroclor 1232	11141-16-5	µg/kg	170	9 U	9 U	9.1 U	8.8 U	8.9 U	9.6 U	9 U	9 U	8.7 U	8.9 U	9.4 U	8.7 U	9.7 U	10 U	9.1 U
Aroclor 1242	53469-21-9	µg/kg	230	9 U	9 U	9.1 U	8.8 U	8.9 U	9.6 U	9 U	9 U	8.7 U	8.9 U	9.4 U	8.7 U	9.7 U	10 U	9.1 U
Aroclor 1248	12672-29-6	µg/kg	230	9 U	9 U	9.1 U	8.8 U	8.9 U	9.6 U	9 U	9 U	8.7 U	8.9 U	9.4 U	8.7 U	9.7 U	10 U	9.1 U
Aroclor 1254	11097-69-1	µg/kg	120	5.8 U	5.8 U	5.9 U	5.7 U	5.8 U	6.2 U	5.9 U	5.8 U	5.7 U	5.8 U	6.1 U	5.6 U	6.3 U	6.5 U	5.9 U
Aroclor 1260	11096-82-5	µg/kg	240	5.8 U	5.8 U	5.9 U	5.7 U	5.8 U	6.2 U	5.9 U	5.8 U	5.7 U	5.8 U	6.1 U	5.6 U	6.3 U	6.5 U	5.9 U
Aroclor 1262	37324-23-5	µg/kg	240	5.8 U	5.8 U	5.9 U	5.7 U	5.8 U	6.2 U	5.9 U	5.8 U	5.7 U	5.8 U	6.1 U	5.6 U	6.3 U	6.5 U	5.9 U
Aroclor 1268	11100-14-4	µg/kg	240	5.8 U	5.8 U	5.9 U	5.7 U	5.8 U	6.2 U	5.9 U	5.8 U	5.7 U	5.8 U	6.1 U	5.6 U	6.3 U	6.5 U	5.9 U
SW9071																		
Oil & Grease	O&G	mg/kg	1200	34.8 U	**46.9 J**	**47 J**	33.9 U	**53.6 J**	37 U	34.7 U	34.8 U	33.6 U	**114**	36.9 U	**90.7**	**95.2**	38.7 U	35.7 U

Notes:

[a] Based on a target cancer risk of 1E-6 and target HQ of 0.1. Aroclor 1260 was used as a surrogate for Aroclor 1262 and Aroclor 1268.

-- = Not analyzed

µg/kg = microgram(s) per kilogram

CAS = Chemical Abstracts Service

FD = field duplicate sample

J = Estimated value less than reporting limit but greater than method detection limit or value is estimated due to a sampling or laboratory quality control issue

mg/kg = milligram(s) per kilogram

N = normal sample

U = The analyte was analyzed for, but was not detected above the reported sample quantitation

UJ = The analyte was below the reported sample quantitation limit; however, the reported value is approximate.

Bold indicates the analyte was detected.

Shading indicates the result exceeded screening criteria.

Table C-1. Copco No. 1 Switchyard Analytical Results

			Location	C1SY-C1	C1SY-C2	C1SY-C2	C1SY-C3	C1SY-C3	C1SY-C3	C1SY-C4	C1SY-C4	C1SY-C5	C1SY-D1	C1SY-D2	C1SY-D2	C1SY-D3	C1SY-D3	C1SY-D4
			Sample Date	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/18/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023
			Depth Interval	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5
			Sample Type	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Human Health Screening Level[a]**															
SW8082																		
Aroclor 1016	12674-11-2	µg/kg	400	9.4 U	8.4 U	9.5 U	8.5 U	8.5 U	9.6 U	8.8 U	8.8 U	9.9 U	9.1 U	9.3 U	10 U	9.1 U	9.5 U	8.9 U
Aroclor 1221	11104-28-2	µg/kg	200	9.4 U	8.4 U	9.5 U	8.5 U	8.5 U	9.6 U	8.8 U	8.8 U	9.9 U	9.1 U	9.3 U	10 U	9.1 U	9.5 U	8.9 U
Aroclor 1232	11141-16-5	µg/kg	170	9.4 U	8.4 U	9.5 U	8.5 U	8.5 U	9.6 U	8.8 U	8.8 U	9.9 U	9.1 U	9.3 U	10 U	9.1 U	9.5 U	8.9 U
Aroclor 1242	53469-21-9	µg/kg	230	9.4 U	8.4 U	9.5 U	8.5 U	8.5 U	9.6 U	8.8 U	8.8 U	9.9 U	9.1 U	9.3 U	10 U	9.1 U	9.5 U	8.9 U
Aroclor 1248	12672-29-6	µg/kg	230	9.4 U	8.4 U	9.5 U	8.5 U	8.5 U	9.6 U	8.8 U	8.8 U	9.9 U	9.1 U	9.3 U	10 U	9.1 U	9.5 U	8.9 U
Aroclor 1254	11097-69-1	µg/kg	120	6.1 U	5.4 U	6.2 U	5.5 U	5.5 U	6.2 U	5.7 U	5.7 U	6.4 U	5.9 U	6 U	6.5 U	5.9 U	6.1 U	5.7 U
Aroclor 1260	11096-82-5	µg/kg	240	6.1 U	5.4 U	6.2 U	**48 J**	5.5 UJ	6.2 U	5.7 U	5.7 U	6.4 U	5.9 U	6 U	6.5 U	5.9 U	6.1 U	5.7 U
Aroclor 1262	37324-23-5	µg/kg	240	6.1 U	5.4 U	6.2 U	5.5 U	5.5 U	6.2 U	5.7 U	5.7 U	6.4 U	5.9 U	6 U	6.5 U	5.9 U	6.1 U	5.7 U
Aroclor 1268	11100-14-4	µg/kg	240	6.1 U	5.4 U	6.2 U	5.5 U	5.5 U	6.2 U	5.7 U	5.7 U	6.4 U	5.9 U	6 U	6.5 U	5.9 U	6.1 U	5.7 U
SW9071																		
Oil & Grease	O&G	mg/kg	1200	37.2 U	32.4 U	**62.3**	**430 J**	33.3 UJ	**49.7 J**	34.6 U	**3710**	38.7 U	36.2 U	**76.5**	38.3 U	**64.1**	**70.4**	**56.9**

Notes:

[a] Based on a target cancer risk of 1E-6 and target HQ of 0.1. Aroclor 1260 was used as a surrogate for Aroclor 1262 and Aroclor 1268.

-- = Not analyzed

µg/kg = microgram(s) per kilogram

CAS = Chemical Abstracts Service

FD = field duplicate sample

J = Estimated value less than reporting limit but greater than method detection limit or value is estimated due to a sampling or laboratory quality control issue

mg/kg = milligram(s) per kilogram

N = normal sample

U = The analyte was analyzed for, but was not detected above the reported sample quantitation

UJ = The analyte was below the reported sample quantitation limit; however, the reported value is approximate.

Bold indicates the analyte was detected.

Shading indicates the result exceeded screening criteria.

Table C-1. Copco No. 1 Switchyard Analytical Results

			Location	C1SY-D4	C1SY-E1	C1SY-E2	C1SY-E3	C1SY-E4	C1SY-E5	C1SY-E5	C1SY-CC1	C1SY-CC2	C1SY-CC3	C1SY-CC4	C1SY-CC5
			Sample Date	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/18/2023	4/18/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023	4/17/2023
			Depth Interval	1 - 1.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.02	0 - 0.02	0 - 0.02	0 - 0.02	0 - 0.02
			Sample Type	N	N	N	N	N	N	FD	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Human Health Screening Level[a]**												
SW8082															
Aroclor 1016	12674-11-2	µg/kg	400	9 U	9 U	9.6 U	9.1 U	9.5 U	9.9 U	10 U	8 U	8.1 U	8 U	8 U	7.9 U
Aroclor 1221	11104-28-2	µg/kg	200	9 U	9 U	9.6 U	9.1 U	9.5 U	9.9 U	10 U	8 U	8.1 U	8 U	8 U	7.9 U
Aroclor 1232	11141-16-5	µg/kg	170	9 U	9 U	9.6 U	9.1 U	9.5 U	9.9 U	10 U	8 U	8.1 U	8 U	8 U	7.9 U
Aroclor 1242	53469-21-9	µg/kg	230	9 U	9 U	9.6 U	9.1 U	9.5 U	9.9 U	10 U	8 U	8.1 U	8 U	8 U	7.9 U
Aroclor 1248	12672-29-6	µg/kg	230	9 U	9 U	9.6 U	9.1 U	9.5 U	9.9 U	10 U	8 U	8.1 U	8 U	8 U	7.9 U
Aroclor 1254	11097-69-1	µg/kg	120	5.8 U	5.8 U	6.2 U	5.9 U	6.1 U	6.4 U	6.6 U	5.2 U	5.3 U	5.2 U	5.2 U	5.1 U
Aroclor 1260	11096-82-5	µg/kg	240	5.8 U	5.8 U	6.2 U	5.9 U	6.1 U	6.4 U	6.6 U	5.2 U	5.3 U	5.2 U	5.2 U	5.1 U
Aroclor 1262	37324-23-5	µg/kg	240	5.8 U	5.8 U	6.2 U	5.9 U	6.1 U	6.4 U	6.6 U	5.2 U	5.3 U	5.2 U	5.2 U	5.1 U
Aroclor 1268	11100-14-4	µg/kg	240	5.8 U	5.8 U	6.2 U	5.9 U	6.1 U	6.4 U	6.6 U	5.2 U	5.3 U	5.2 U	5.2 U	5.1 U
SW9071															
Oil & Grease	O&G	mg/kg	1200	**337**	**387**	**58 J**	36 U	**61**	39.3 U	39.5 U	**626**	**464**	**34.8 J**	31.2 U	31 U

Notes:

[a] Based on a target cancer risk of 1E-6 and target HQ of 0.1. Aroclor 1260 was used as a surrogate for Aroclor 1262 and Aroclor 1268.

-- = Not analyzed

µg/kg = microgram(s) per kilogram

CAS = Chemical Abstracts Service

FD = field duplicate sample

J = Estimated value less than reporting limit but greater than method detection limit or value is estimated due to a sampling or laboratory quality control issue

mg/kg = milligram(s) per kilogram

N = normal sample

U = The analyte was analyzed for, but was not detected above the reported sample quantitation

UJ = The analyte was below the reported sample quantitation limit; however, the reported value is approximate.

Bold indicates the analyte was detected.

Shading indicates the result exceeded screening criteria.

Table C-2. Iron Gate Substation Analytical Results

			Location	IGSY-01	IGSY-01	IGSY-01	IGSY-02	IGSY-02	IGSY-03*	IGSY-03*	IGSY-04*	IGSY-CC1*	IGSY-CC2*	IGSY-CC3*
			Sample Date	4/18/2023	4/18/2023	4/18/2023	4/18/2023	4/18/2023	4/18/2023	4/18/2023	4/18/2023	4/18/2023	4/18/2023	4/18/2023
			Depth Interval	0 - 0.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	1 - 1.5	0 - 0.5	0 - 0.02	0 - 0.02	0 - 0.02
			Sample Type	N	FD	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Human Health Residential Screening Level[a]**											
SW8082														
Aroclor 1016	12674-11-2	µg/kg	400	9.1 U	8.5 U	8.6 U	8.8 U	8.9 U	8.3 U	8.2 U	8.1 U	7.9 U	7.8 U	8.1 U
Aroclor 1221	11104-28-2	µg/kg	200	9.1 U	8.5 U	8.6 U	8.8 U	8.9 U	8.3 U	8.2 U	8.1 U	7.9 U	7.8 U	8.1 U
Aroclor 1232	11141-16-5	µg/kg	170	9.1 U	8.5 U	8.6 U	8.8 U	8.9 U	8.3 U	8.2 U	8.1 U	7.9 U	7.8 U	8.1 U
Aroclor 1242	53469-21-9	µg/kg	230	9.1 U	8.5 U	8.6 U	8.8 U	8.9 U	8.3 U	8.2 U	8.1 U	7.9 U	7.8 U	8.1 U
Aroclor 1248	12672-29-6	µg/kg	230	9.1 U	8.5 U	8.6 U	8.8 U	8.9 U	8.3 U	8.2 U	8.1 U	7.9 U	7.8 U	8.1 U
Aroclor 1254	11097-69-1	µg/kg	120	**18 J**	5.5 UJ	5.6 U	5.7 U	5.8 U	**130**	**190**	**160**	**6 J**	5.1 U	5.3 U
Aroclor 1260	11096-82-5	µg/kg	240	5.9 UJ	**14 J**	5.6 U	**250**	**8.8 J**	**67**	5.3 U	5.3 U	**6.4 J**	5.1 U	5.3 U
Aroclor 1262	37324-23-5	µg/kg	240	5.9 U	5.5 U	5.6 U	5.7 U	5.8 U	5.4 U	5.3 U	5.3 U	5.1 U	5.1 U	5.3 U
Aroclor 1268	11100-14-4	µg/kg	240	5.9 U	5.5 U	5.6 U	5.7 U	5.8 U	5.4 U	5.3 U	5.3 U	5.1 U	5.1 U	5.3 U
SW9071														
Oil & Grease	O&G	mg/kg	1200	**123 J**	**77.6 J**	**150**	**180**	**169**	**25500**	**9080**	**16800**	**133**	**31600**	**384**

Notes:

[a] Based on a target cancer risk of 1E-6 and target HQ of 0.1. Aroclor 1260 was used as a surrogate for Aroclor 1262 and Aroclor 1268.

* Sample location is in an area to be removed during dam removal activities by the Klamath River Removal Corporation.

-- = Not analyzed

µg/kg = microgram(s) per kilogram

CAS = Chemical Abstracts Service

FD = field duplicate sample

J = Estimated value less than reporting limit but greater than method detection limit or value is estimated due to a sampling or laboratory quality control issue

mg/kg = milligram(s) per kilogram

N = normal sample

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was below the reported sample quantitation limit; however, the reported value is approximate.

Bold indicates the analyte was detected.

Shading indicates the result exceeded screening criteria.

Appendix C2
Laboratory Reports

Available upon request.

Appendix D
Data Quality Evaluation Report

Jacobs

Lower Klamath Project (FERC No. P-14803)

Data Quality Evaluation Report

Final

September 2023

PACIFICORP

Contents

Acronyms and Abbreviations

DQE	data quality evaluation
EPA	U.S. Environmental Protection Agency
EUCG	Eurofins Calscience Laboratory
FD	field duplicate
HEM	Hexane Extractable Material
Jacobs	Jacobs Engineering Group Inc.
LCL	lower control limit
LCS	laboratory control sample
MS/MSD	matrix spike/matrix spike duplicates
PARCC	precision, accuracy, representativeness, completeness, and comparability
Project	Lower Klamath Project
QC	quality control
RPD	relative percent difference
SGT	silica gel treatment
SIWP	site investigation work plan

1. Introduction

The objective of this data quality evaluation (DQE) report is to assess the data quality of analytical results for concrete and soil samples collected by Jacobs Engineering Group Inc. (Jacobs) on behalf of PacifiCorp during investigation of pre-existing environmental conditions on the Lower Klamath Project (Project). The Project is divided between sites in California and Oregon. Jacobs and PacifiCorp have prepared separate Site Investigation Work Plans (SIWPs) for the sites in California and Oregon (Jacobs 2021a and 2021b), a sampling and analysis plan (Appendix A to the California and Oregon SIWPs), SIWP supplements for California and Oregon (Jacobs 2023a and 2023b), and Site Investigation Reports for California and Oregon (Jacobs 2023c and 2023d).

The individual method requirements and guidelines from the U.S. Environmental Protection Agency (EPA) *National Functional Guidelines for Organic Superfund Methods Data Review* (EPA 2020a) and the EPA *National Functional Guidelines for Inorganic Superfund Methods Data Review* (EPA 2020b) were consulted for this evaluation. This DQE report provides a general data quality assessment and a summary of data issues.

2. Analytical Data

This DQE report covers 8 normal concrete, 40 normal soil samples, and 5 soil field duplicates (FDs), for a total of 583 individual sample results. Samples were collected on April 17 and April 18, 2023. A list of samples and collection dates is attached to this report. These sample results were reported under one sample delivery group (570-135744-1). The analyses were performed by Eurofins Calscience Laboratory (EUCG) in Tustin, California.

Samples were collected and delivered by commercial courier to the laboratory for analysis. Samples were analyzed by the laboratory listed above for oil and grease and polychlorinated biphenyls (Table 1).

Table 1. Analytical Parameters

Parameter	Method	Laboratory
Oil and Grease / Oil and Grease-SGT as HEM / HEM-SGT	SW9071	EUCG
Polychlorinated Biphenyls	SW8082	EUCG

Notes:

Parameters

HEM = hexane extractable material

SGT = silica gel treatment

Laboratory

EUCG = Eurofins Calscience Laboratory

The assessment of data includes a review of: (1) the chain-of-custody documentation; (2) holding-time compliance; (3) the required field and laboratory quality control [QC] samples; (4) method blanks; (5) laboratory control samples (LCS); (6) surrogate spike recoveries; (7) matrix spike/matrix spike duplicate (MS/MSD) samples; (8) analytical spike data (for example, post-digestion spikes for metals analyses); (9) initial and continuing calibration information; and (10) other method-specific criteria.

Field samples were also reviewed to ascertain field compliance and data quality issues. This included the review of FDs.

Data flags were assigned according to QC acceptance limits. These flags, as well as the reason for each flag, are entered into the electronic database. Multiple flags are routinely applied to specific sample

method/matrix/analyte combinations, but there will be only one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes blank sample impacts.

The data flags are defined from most conservative to least as follows:

- R = The result was unusable due to deficiencies in the ability to analyze the sample and meet QC criteria.
- J = Analyte was present but the reported value may not be accurate or precise (estimated). The result was estimated due to either being less than the referenced reporting limit but greater than the method detection limit or due to a QC exceedance.
- UJ = Analyte was not detected and the specified detection limit may not be accurate or precise (estimated).
- U = Analyte was not detected at the specified detection limit.

3. Findings

The overall summaries of the data validation findings are contained in the following sections. Qualified data are presented in Table 2 (located at the end of Section 3).

3.1 Holding Times

All holding-time criteria were met.

3.2 Calibration

Initial and continuing calibration criteria were met.

3.3 Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination that would affect the sample results.

3.4 Field Duplicates

Five soil FD sets were collected and analyzed during this event. Precision criteria are based on laboratory established precision values. All precision criteria were met, with the following exceptions:

- Two Aroclor compounds in two FD sets for method SW8082 exceeded the relative percent difference (RPD) limit of less than 50 percent between the native and field duplicate results. A total of three detected sample results were qualified as estimated and flagged “J”; three nondetected sample results were qualified as estimated and flagged “UJ.”
- HEM and HEM-SGT in two soil FD sets for method SW9071 exceeded the RPD limit of less than 20 percent or the difference between the native and field duplicate results was greater than four times the reporting limit. A total of six detected sample results were qualified as estimated and flagged “J”; two nondetected sample results were qualified as estimated and flagged “UJ.”

3.5 Surrogates

Surrogate spikes were analyzed in each sample for all required methods. All acceptance criteria were met.

3.6 Laboratory Control Samples

LCS and LCS duplicates were analyzed as required. Accuracy and precision criteria were met.

3.7 Matrix Spike/Matrix Spike Duplicate

The results of MS/MSD analyses provide information about the possible influence of the matrix on either accuracy or precision of the measurements. A total of three MS/MSD sets were either submitted by the field team or selected by the laboratory. All acceptance criteria were met, with the following exceptions:

- The recovery for Aroclor 1260 in one MS/MSD set was greater than the upper confidence limit for method SW8082. One detected native sample result was qualified as estimated and flagged "J."

3.8 Chain of Custody

Each sample was documented in a completed chain-of-custody form and received at the laboratory within temperature criteria and in good condition.

3.9 Overall Assessment

The final activity in the DQE is an assessment of whether the data meet the required precision, accuracy, representativeness, completeness, and comparability (PARCC). The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected, and the resulting analytical data can be used to support the decision making process. The following summary highlights the data evaluation findings for the above defined events:

1) The completeness goal of 90 percent for soil samples were met for all method/analyte combinations.
2) Approximately 6 percent of the data were qualified as estimated because of quality control exceedances that included FD RPD exceedances or MS/MSD recovery exceedances.
3) Overall, the precision and accuracy of the data, as measured by laboratory and field quality control indicators, indicates that the PARCC were met. Data are usable for project decision-making, considering the biases outlined in this data quality evaluation.
4) Representativeness and comparability of the data was achieved through adherence to the sampling plan. Consistent sample collection procedures, project laboratories, and analytical methodologies were used throughout the sampling event. Data were reported in consistent methods and units for the sampling events.
5) Sensitivity is a measurement based on the analytical instrument method reporting limits determined by each laboratory and is ensured through compliance with reporting limits being equivalent to, or less than the project screening levels. Any nondetect results that were reported by the laboratory have been evaluated against the project screening levels as discussed in the work plan.

Table 2. Data Qualification Summary

NativeID	Method	Analyte	Final Result	Units	Final Validation Flag	Validation Reason
C1SY-C3-0.0-20230417FD	SW8082	Aroclor-1260	5.5	ug/Kg	UJ	FD>RPD
IGSY-01-0.0-20230418	SW8082	Aroclor-1254	18	ug/Kg	J	FD>RPD
IGSY-01-0.0-20230418	SW8082	Aroclor-1260	5.9	ug/Kg	UJ	FD>RPD
IGSY-01-0.0-20230418FD	SW8082	Aroclor-1260	14	ug/Kg	J	FD>RPD
IGSY-01-0.0-20230418FD	SW8082	Aroclor-1254	5.5	ug/Kg	UJ	FD>RPD
C1SY-C3-0.0-20230417	SW8082	Aroclor-1260	48	ug/Kg	J	FD>RPD
C1SY-C3-0.0-20230417	SW8082	Aroclor-1260	48	ug/Kg	J	MS>UCL
C1SY-C3-0.0-20230417	SW8082	Aroclor-1260	48	ug/Kg	J	SD>UCL
IGSY-01-0.0-20230418FD	SW9071	HEM: Oil and Grease	77.6	mg/Kg	J	FD>RPD
IGSY-01-0.0-20230418FD	SW9071	HEM-SGT: Oil and Grease	36.9	mg/Kg	J	FD>RPD
IGSY-01-0.0-20230418	SW9071	HEM: Oil and Grease	123	mg/Kg	J	FD>RPD
IGSY-01-0.0-20230418	SW9071	HEM-SGT: Oil and Grease	57.8	mg/Kg	J	FD>RPD
C1SY-C3-0.0-20230417	SW9071	HEM: Oil and Grease	430	mg/Kg	J	FD>RPD
C1SY-C3-0.0-20230417	SW9071	HEM-SGT: Oil and Grease	211	mg/Kg	J	FD>RPD
C1SY-C3-0.0-20230417FD	SW9071	HEM: Oil and Grease	33.3	mg/Kg	UJ	FD>RPD
C1SY-C3-0.0-20230417FD	SW9071	HEM-SGT: Oil and Grease	15.3	mg/Kg	UJ	FD>RPD

4. References

Jacobs Engineering Group Inc. (Jacobs). 2021a. *California Site Investigation Work Plan.* Prepared for PacifiCorp. November.

Jacobs Engineering Group Inc. (Jacobs). 2021b. *Oregon Site Investigation Work Plan.* Prepared for PacifiCorp. November.

Jacobs Engineering Group Inc. (Jacobs). 2023a. *California Site Investigation Work Plan Supplement No. 1.* Prepared for PacifiCorp. January.

Jacobs Engineering Group Inc. (Jacobs). 2023b. *Oregon Site Investigation Work Plan Supplement No. 1.* Prepared for PacifiCorp. January.

Jacobs Engineering Group Inc. (Jacobs). 2023c. *California Site Investigation Report*. Prepared for PacifiCorp. March.

Jacobs Engineering Group Inc. (Jacobs). 2023d. *Oregon Site Investigation Report*. Prepared for PacifiCorp. March.

U.S. Environmental Protection Agency (EPA). 2020a. *National Functional Guidelines for Organic Superfund Methods Data Review.* November.

U.S. Environmental Protection Agency (EPA). 2020b. *National Functional Guidelines for Inorganic Superfund Methods Data Review.* November.

Attachment
Samples Associated with Data Quality Evaluation Report

Samples Associated with Data Quality Evaluation Report

Sample ID	Sample Date	Sample Type	Matrix
C1SY-A1-0.0-20230417	4/17/2023	N	Soil
C1SY-A2-0.0-20230417	4/17/2023	N	Soil
C1SY-A2-0.0-20230417FD	4/17/2023	FD	Soil
C1SY-A3-0.0-20230417	4/17/2023	N	Soil
C1SY-A4-0.0-20230417	4/17/2023	N	Soil
C1SY-B1-0.0-20230417	4/17/2023	N	Soil
C1SY-B2-0.0-20230417	4/17/2023	N	Soil
C1SY-B2-1.0-20230417	4/17/2023	N	Soil
C1SY-B3-0.0-20230417	4/17/2023	N	Soil
C1SY-B3-1.0-20230417	4/17/2023	N	Soil
C1SY-B4-0.0-20230417	4/17/2023	N	Soil
C1SY-B4-1.0-20230417	4/17/2023	N	Soil
C1SY-C1-0.0-20230417	4/17/2023	N	Soil
C1SY-C1-0.0-20230417FD	4/17/2023	FD	Soil
C1SY-C2-0.0-20230417	4/17/2023	N	Soil
C1SY-C2-1.0-20230417	4/17/2023	N	Soil
C1SY-C3-0.0-20230417	4/17/2023	N	Soil
C1SY-C3-0.0-20230417FD	4/17/2023	FD	Soil
C1SY-C3-1.0-20230417	4/17/2023	N	Soil
C1SY-C4-0.0-20230417	4/17/2023	N	Soil
C1SY-C4-1.0-20230417	4/17/2023	N	Soil
C1SY-CC1-0.0-20230417	4/17/2023	N	Concrete
C1SY-CC2-0.0-20230417	4/17/2023	N	Concrete
C1SY-CC3-0.0-20230417	4/17/2023	N	Concrete
C1SY-CC4-0.0-20230417	4/17/2023	N	Concrete
C1SY-CC5-0.0-20230417	4/17/2023	N	Concrete
C1SY-D1-0.0-20230417	4/17/2023	N	Soil
C1SY-D2-0.0-20230417	4/17/2023	N	Soil
C1SY-D2-1.0-20230417	4/17/2023	N	Soil
C1SY-D3-0.0-20230417	4/17/2023	N	Soil

Sample ID	Sample Date	Sample Type	Matrix
C1SY-D3-1.0-20230417	4/17/2023	N	Soil
C1SY-D4-0.0-20230417	4/17/2023	N	Soil
C1SY-D4-1.0-20230417	4/17/2023	N	Soil
C1SY-E1-0.0-20230417	4/17/2023	N	Soil
C1SY-E2-0.0-20230417	4/17/2023	N	Soil
C1SY-E3-0.0-20230417	4/17/2023	N	Soil
C1SY-E4-0.0-20230417	4/17/2023	N	Soil
C1SY-A5-0.0-20230418	4/18/2023	N	Soil
C1SY-B5-0.0-20230418	4/18/2023	N	Soil
C1SY-C5-0.0-20230418	4/18/2023	N	Soil
C1SY-E5-0.0-20230418	4/18/2023	N	Soil
C1SY-E5-0.0-20230418FD	4/18/2023	FD	Soil
IGSY-01-0.0-20230418	4/18/2023	N	Soil
IGSY-01-0.0-20230418FD	4/18/2023	FD	Soil
IGSY-01-1.0-20230418	4/18/2023	N	Soil
IGSY-02-0.0-20230418	4/18/2023	N	Soil
IGSY-02-1.0-20230418	4/18/2023	N	Soil
IGSY-03-0.0-20230418	4/18/2023	N	Soil
IGSY-03-1.0-20230418	4/18/2023	N	Soil
IGSY-04-0.0-20230418	4/18/2023	N	Soil
IGSY-CC1-0.0-20230418	4/18/2023	N	Concrete
IGSY-CC2-0.0-20230418	4/18/2023	N	Concrete
IGSY-CC3-0.0-20230418	4/18/2023	N	Concrete

Notes:

FD = field duplicate

N = regular sample

Appendix E
Human Health Risk Evaluation Tables

Table E-1
Copco No. 1 Switchyard ProUCL Input

The Excel table file is available upon request.

O&G	d_O&G
46.9	1
53.6	1
114	1
90.7	1
95.2	1
62.3	1
430	1
49.7	1
3710	1
76.5	1
64.1	1
70.4	1
56.9	1
337	1
387	1
58	1
61	1

Table E-2
Copco No. 1 Switchyard ProUCL Output

The Excel table file is available upon request.

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.2 6/13/2023 4:36:38 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

C0

General Statistics

Total Number of Observations	17	Number of Distinct Observations	17
		Number of Missing Observations	0
Minimum	46.9	Mean	339
Maximum	3710	Median	70.4
SD	877.7	Std. Error of Mean	212.9
Coefficient of Variation	2.589	Skewness	3.986

Normal GOF Test

Shapiro Wilk Test Statistic	0.358	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.851	Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.4	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.241	Data Not Normal at 1% Significance Level

Data Not Normal at 1% Significance Level

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	710.7	95% Adjusted-CLT UCL (Chen-1995)	909.1
		95% Modified-t UCL (Johnson-1978)	745

Gamma GOF Test

A-D Test Statistic	2.912	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.791	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.358	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.22	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.576	k star (bias corrected MLE)	0.513
Theta hat (MLE)	588.7	Theta star (bias corrected MLE)	660.2
nu hat (MLE)	19.58	nu star (bias corrected)	17.46
MLE Mean (bias corrected)	339	MLE Sd (bias corrected)	473.1
		Approximate Chi Square Value (0.05)	9.001
Adjusted Level of Significance	0.0346	Adjusted Chi Square Value	8.37

Assuming Gamma Distribution

95% Approximate Gamma UCL	657.6	95% Adjusted Gamma UCL	707.2

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.728	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.91	Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.272	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.19	Data Not Lognormal at 10% Significance Level

Data Not Lognormal at 10% Significance Level

Lognormal Statistics

Minimum of Logged Data	3.848	Mean of logged Data	4.747
Maximum of Logged Data	8.219	SD of logged Data	1.149

Assuming Lognormal Distribution

95% H-UCL	512	90% Chebyshev (MVUE) UCL	407.8
95% Chebyshev (MVUE) UCL	497.3	97.5% Chebyshev (MVUE) UCL	621.6
99% Chebyshev (MVUE) UCL	865.7		

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution

Nonparametric Distribution Free UCLs

95% CLT UCL	689.2	95% BCA Bootstrap UCL	997.1
95% Standard Bootstrap UCL	681.3	95% Bootstrap-t UCL	2789
95% Hall's Bootstrap UCL	2720	95% Percentile Bootstrap UCL	751.6
90% Chebyshev(Mean, Sd) UCL	977.6	95% Chebyshev(Mean, Sd) UCL	1267
97.5% Chebyshev(Mean, Sd) UCL	1668	99% Chebyshev(Mean, Sd) UCL	2457

Suggested UCL to Use

95% Student's-t UCL 710.7

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.
Please verify the data were collected from random locations.
If the data were collected using judgmental or other non-random methods,
then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table E-3
Iron Gate Substation ProUCL Input

The Excel table file is available upon request.

1260	d_1260	1254	d_1254	O&G	d_O&G	O&G-SGT	d_O&G-SGT
14	1	18	1	123	1	57.8	1
5.6	0	5.6	0	150	1	67.3	1
250	1	5.7	0	180	1	80.5	1
8.8	1	5.8	0	169	1	80.5	1
67	1	130	1	25500	1	12800	1
5.3	0	190	1	9080	1	4540	1
5.3	0	160	1	16800	1	8400	1

Table E-4
Iron Gate Substation ProUCL Output

The Excel table file is available upon request.

UCL Statistics for Data Sets with Nondetects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 6/13/2023 4:34:34 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

1260

General Statistics

Total Number of Observations	7	Number of Distinct Observations	6
Number of Detects	4	Number of Nondetects	3
Number of Distinct Detects	4	Number of Distinct Nondetects	2
Minimum Detect	8.8	Minimum Nondetect	5.3
Maximum Detect	250	Maximum Nondetect	5.6
Variance Detects	12799	Percent Nondetects	42.86%
Mean Detects	84.95	SD Detects	113.1
Median Detects	40.5	CV Detects	1.332
Skewness Detects	1.7	Kurtosis Detects	2.803
Mean of Logged Detects	3.635	SD of Logged Detects	1.528

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.794	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.313	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	50.81	KM Standard Error of Mean	36.62
90KM SD	83.9	95% KM (BCA) UCL	N/A
95% KM (t) UCL	122	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	111	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	160.7	95% KM Chebyshev UCL	210.4
97.5% KM Chebyshev UCL	279.5	99% KM Chebyshev UCL	415.1

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.339	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.671	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.282	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.405	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	0.743	k star (bias corrected MLE)	0.352
Theta hat (MLE)	114.4	Theta star (bias corrected MLE)	241.1
nu hat (MLE)	5.942	nu star (bias corrected)	2.819
Mean (detects)	84.95		

Gamma ROS Statistics using Imputed Nondetects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	48.55
Maximum	250	Median	8.8
SD	91.98	CV	1.895
k hat (MLE)	0.195	k star (bias corrected MLE)	0.207
Theta hat (MLE)	248.4	Theta star (bias corrected MLE)	234.6
nu hat (MLE)	2.736	nu star (bias corrected)	2.897
Adjusted Level of Significance (β)	0.0158		
Approximate Chi Square Value (2.90, α)	0.343	Adjusted Chi Square Value (2.90, β)	0.176
95% Gamma Approximate UCL	410.6	95% Gamma Adjusted UCL	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	50.81	SD (KM)	83.9
Variance (KM)	7039	SE of Mean (KM)	36.62
k hat (KM)	0.367	k star (KM)	0.305
nu hat (KM)	5.136	nu star (KM)	4.268
theta hat (KM)	138.5	theta star (KM)	166.7
80% gamma percentile (KM)	78.23	90% gamma percentile (KM)	149.6
95% gamma percentile (KM)	231.3	99% gamma percentile (KM)	443.1

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (4.27, α)	0.83	Adjusted Chi Square Value (4.27, β)	0.47
95% KM Approximate Gamma UCL	261.2	95% KM Adjusted Gamma UCL	461.2

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.937	**Shapiro Wilk GOF Test**
10% Shapiro Wilk Critical Value	0.792	Detected Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.243	**Lilliefors GOF Test**
10% Lilliefors Critical Value	0.346	Detected Data appear Lognormal at 10% Significance Level

Detected Data appear Lognormal at 10% Significance Level

Note GOF tests may be unreliable for small sample sizes

Lognormal ROS Statistics Using Imputed Nondetects

Mean in Original Scale	48.75	Mean in Log Scale	1.677
SD in Original Scale	91.86	SD in Log Scale	2.711
95% t UCL (assumes normality of ROS data)	116.2	95% Percentile Bootstrap UCL	110.5
95% BCA Bootstrap UCL	135.9	95% Bootstrap t UCL	768.5
95% H-UCL (Log ROS)	4524642		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	2.792	KM Geo Mean	16.31
KM SD (logged)	1.396	95% Critical H Value (KM-Log)	4.865
KM Standard Error of Mean (logged)	0.609	95% H-UCL (KM -Log)	691.6
KM SD (logged)	1.396	95% Critical H Value (KM-Log)	4.865
KM Standard Error of Mean (logged)	0.609		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	49.7	Mean in Log Scale	2.503
SD in Original Scale	91.28	SD in Log Scale	1.778
95% t UCL (Assumes normality)	116.7	95% H-Stat UCL	4797

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 1% Significance Level

Suggested UCL to Use

95% KM (t) UCL 122

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.
Please verify the data were collected from random locations.
If the data were collected using judgmental or other nonrandom methods,
then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

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General Statistics

Total Number of Observations	7	Number of Distinct Observations	7
Number of Detects	4	Number of Nondetects	3
Number of Distinct Detects	4	Number of Distinct Nondetects	3
Minimum Detect	18	Minimum Nondetect	5.6
Maximum Detect	190	Maximum Nondetect	5.8
Variance Detects	5641	Percent Nondetects	42.86%
Mean Detects	124.5	SD Detects	75.11
Median Detects	145	CV Detects	0.603
Skewness Detects	-1.388	Kurtosis Detects	2.071
Mean of Logged Detects	4.52	SD of Logged Detects	1.097

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.897	**Shapiro Wilk GOF Test**	
1% Shapiro Wilk Critical Value	0.687	Detected Data appear Normal at 1% Significance Level	
Lilliefors Test Statistic	0.279	**Lilliefors GOF Test**	
1% Lilliefors Critical Value	0.413	Detected Data appear Normal at 1% Significance Level	

Detected Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	73.54	KM Standard Error of Mean	33.47
90KM SD	76.68	95% KM (BCA) UCL	N/A
95% KM (t) UCL	138.6	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	128.6	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	173.9	95% KM Chebyshev UCL	219.4
97.5% KM Chebyshev UCL	282.5	99% KM Chebyshev UCL	406.5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.586	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.661	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.371	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.399	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics on Detected Data Only

k hat (MLE)	1.792	k star (bias corrected MLE)	0.615
Theta hat (MLE)	69.48	Theta star (bias corrected MLE)	202.6
nu hat (MLE)	14.33	nu star (bias corrected)	4.917
Mean (detects)	124.5		

Gamma ROS Statistics using Imputed Nondetects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	71.15
Maximum	190	Median	18
SD	85.14	CV	1.197
k hat (MLE)	0.201	k star (bias corrected MLE)	0.21
Theta hat (MLE)	353.7	Theta star (bias corrected MLE)	338.5
nu hat (MLE)	2.816	nu star (bias corrected)	2.942
Adjusted Level of Significance (β)	0.0158		
Approximate Chi Square Value (2.94, α)	0.356	Adjusted Chi Square Value (2.94, β)	0.183
95% Gamma Approximate UCL	588.8	95% Gamma Adjusted UCL	N/A

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	73.54	SD (KM)	76.68
Variance (KM)	5880	SE of Mean (KM)	33.47
k hat (KM)	0.92	k star (KM)	0.621
nu hat (KM)	12.88	nu star (KM)	8.692
theta hat (KM)	79.95	theta star (KM)	118.5
80% gamma percentile (KM)	121.2	90% gamma percentile (KM)	189.8
95% gamma percentile (KM)	261.4	99% gamma percentile (KM)	434

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (8.69, α)	3.142	Adjusted Chi Square Value (8.69, β)	2.224
95% KM Approximate Gamma UCL	203.4	95% KM Adjusted Gamma UCL	287.4

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.757	**Shapiro Wilk GOF Test**	
10% Shapiro Wilk Critical Value	0.792	Detected Data Not Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.374	**Lilliefors GOF Test**	
10% Lilliefors Critical Value	0.346	Detected Data Not Lognormal at 10% Significance Level	

Detected Data Not Lognormal at 10% Significance Level

Lognormal ROS Statistics Using Imputed Nondetects

Mean in Original Scale	73.92	Mean in Log Scale	3.384
SD in Original Scale	82.46	SD in Log Scale	1.615
95% t UCL (assumes normality of ROS data)	134.5	95% Percentile Bootstrap UCL	123.7
95% BCA Bootstrap UCL	122.1	95% Bootstrap t UCL	156.3
95% H-UCL (Log ROS)	4197		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	3.321	KM Geo Mean	27.69
KM SD (logged)	1.56	95% Critical H Value (KM-Log)	5.367
KM Standard Error of Mean (logged)	0.681	95% H-UCL (KM -Log)	2850
KM SD (logged)	1.56	95% Critical H Value (KM-Log)	5.367
KM Standard Error of Mean (logged)	0.681		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	72.36	Mean in Log Scale	3.032
SD in Original Scale	83.96	SD in Log Scale	2.012
95% t UCL (Assumes normality)	134	95% H-Stat UCL	41310

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 1% Significance Level

Suggested UCL to Use

95% KM (t) UCL 138.6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

O&G

General Statistics

Total Number of Observations	7	Number of Distinct Observations	7
		Number of Missing Observations	0
Minimum	123	Mean	7429
Maximum	25500	Median	180
SD	10237	Std. Error of Mean	3869
Coefficient of Variation	1.378	Skewness	1.129

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test

Shapiro Wilk Test Statistic	0.778	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.73	Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.332	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.35	Data appear Normal at 1% Significance Level

Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	14947	95% Adjusted-CLT UCL (Chen-1995)	15557
		95% Modified-t UCL (Johnson-1978)	15222

Gamma GOF Test

A-D Test Statistic	0.852	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.775	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.364	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.333	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.354	k star (bias corrected MLE)	0.298
Theta hat (MLE)	20965	Theta star (bias corrected MLE)	24952
nu hat (MLE)	4.961	nu star (bias corrected)	4.168
MLE Mean (bias corrected)	7429	MLE Sd (bias corrected)	13615
		Approximate Chi Square Value (0.05)	0.789
Adjusted Level of Significance	0.0158	Adjusted Chi Square Value	0.443

Assuming Gamma Distribution

95% Approximate Gamma UCL	39234	95% Adjusted Gamma UCL	69881

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.756	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.838	Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.339	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.28	Data Not Lognormal at 10% Significance Level

Data Not Lognormal at 10% Significance Level

Lognormal Statistics

Minimum of Logged Data	4.812	Mean of logged Data	7.019
Maximum of Logged Data	10.15	SD of logged Data	2.494

Assuming Lognormal Distribution

95% H-UCL	1.197E+8	90% Chebyshev (MVUE) UCL	31796
95% Chebyshev (MVUE) UCL	41969	97.5% Chebyshev (MVUE) UCL	56087
99% Chebyshev (MVUE) UCL	83821		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution

Nonparametric Distribution Free UCLs

95% CLT UCL	13793	95% BCA Bootstrap UCL	14671
95% Standard Bootstrap UCL	13506	95% Bootstrap-t UCL	25629
95% Hall's Bootstrap UCL	17683	95% Percentile Bootstrap UCL	13566
90% Chebyshev(Mean, Sd) UCL	19036	95% Chebyshev(Mean, Sd) UCL	24294
97.5% Chebyshev(Mean, Sd) UCL	31591	99% Chebyshev(Mean, Sd) UCL	45925

Suggested UCL to Use

95% Student's-t UCL 14947

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.
Please verify the data were collected from random locations.
If the data were collected using judgmental or other nonrandom methods,
then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

O&G-SGT

General Statistics

Total Number of Observations	7	Number of Distinct Observations	6
		Number of Missing Observations	0
Minimum	57.8	Mean	3718
Maximum	12800	Median	80.5
SD	5136	Std. Error of Mean	1941
Coefficient of Variation	1.381	Skewness	1.134

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test

Shapiro Wilk Test Statistic	0.777	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.73	Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.332	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.35	Data appear Normal at 1% Significance Level

Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	7490	95% Adjusted-CLT UCL (Chen-1995)	7800
		95% Modified-t UCL (Johnson-1978)	7629

Gamma GOF Test

A-D Test Statistic	0.86	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.776	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.366	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.333	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.347	k star (bias corrected MLE)	0.293
Theta hat (MLE)	10719	Theta star (bias corrected MLE)	12670
nu hat (MLE)	4.856	nu star (bias corrected)	4.108
MLE Mean (bias corrected)	3718	MLE Sd (bias corrected)	6863
		Approximate Chi Square Value (0.05)	0.765
Adjusted Level of Significance	0.0158	Adjusted Chi Square Value	0.427

Assuming Gamma Distribution

95% Approximate Gamma UCL	19969	95% Adjusted Gamma UCL	35753

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.753	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.838	Data Not Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.343	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.28	Data Not Lognormal at 10% Significance Level

Data Not Lognormal at 10% Significance Level

Lognormal Statistics

Minimum of Logged Data	4.057	Mean of logged Data	6.28
Maximum of Logged Data	9.457	SD of logged Data	2.538

Assuming Lognormal Distribution

95% H-UCL	86012988	90% Chebyshev (MVUE) UCL	16277
95% Chebyshev (MVUE) UCL	21500	97.5% Chebyshev (MVUE) UCL	28748
99% Chebyshev (MVUE) UCL	42986		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution

Nonparametric Distribution Free UCLs

95% CLT UCL	6911	95% BCA Bootstrap UCL	7355
95% Standard Bootstrap UCL	6767	95% Bootstrap-t UCL	12864
95% Hall's Bootstrap UCL	8890	95% Percentile Bootstrap UCL	6803
90% Chebyshev(Mean, Sd) UCL	9542	95% Chebyshev(Mean, Sd) UCL	12180
97.5% Chebyshev(Mean, Sd) UCL	15841	99% Chebyshev(Mean, Sd) UCL	23033

Suggested UCL to Use

95% Student's-t UCL 7490

The calculated UCLs are based on assumptions that the data were collected in a random and unbiased manner.
Please verify the data were collected from random locations.
If the data were collected using judgmental or other nonrandom methods,
then contact a statistician to correctly calculate UCLs.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Table E-5
Resident Soil Inputs and Risk-Based Regional Screening Levels for Soil at the Copco No. 1 Switchyard and Iron Gate Substation

The Excel table file is available upon request.

Site-specific
Resident Soil Inputs

Variable	Resident Soil Default Value	Site-Specific Value
A (PEF Dispersion Constant)	16.2302	16.2302
A (VF Dispersion Constant)	11.911	11.911
A (VF Dispersion Constant - mass limit)	11.911	11.911
B (PEF Dispersion Constant)	18.7762	18.7762
B (VF Dispersion Constant)	18.4385	18.4385
B (VF Dispersion Constant - mass limit)	18.4385	18.4385
City (PEF Climate Zone) Selection	Default	Default
City (VF Climate Zone) Selection	Default	Default
C (PEF Dispersion Constant)	216.108	216.108
C (VF Dispersion Constant)	209.7845	209.7845
C (VF Dispersion Constant - mass limit)	209.7845	209.7845
foc (fraction organic carbon in soil) g/g	0.006	0.006
F(x) (function dependent on U_m/U_t) unitless	0.194	0.194
n (total soil porosity) L_{pore}/L_{soil}	0.43396	0.43396
ρ_b (dry soil bulk density) g/cm ^{3}	1.5	1.5
ρ_b (dry soil bulk density - mass limit) g/cm ^{3}	1.5	1.5
PEF (particulate emission factor) m ^{3}/kg	1359344438	1359344438
ρ_s (soil particle density) g/cm ^{3}	2.65	2.65
Q/C_{wind} (g/m^2-s per kg/m^3)	93.77	93.77
Q/C_{vol} (g/m^2-s per kg/m^3)	68.18	68.18
Q/C_{vol} (g/m^2-s per kg/m^3 - mass limit)	68.18	68.18
A_s (PEF acres)	0.5	0.5
A_s (VF acres)	0.5	0.5
A_s (VF mass-limit acres)	0.5	0.5
AF_{0-2} (mutagenic skin adherence factor) mg/cm ^{2}	0.2	0.2
AF_{2-6} (mutagenic skin adherence factor) mg/cm ^{2}	0.2	0.2
AF_{6-16} (mutagenic skin adherence factor) mg/cm ^{2}	0.07	0.07
AF_{16-26} (mutagenic skin adherence factor) mg/cm ^{2}	0.07	0.07
AF_{res-a} (skin adherence factor - adult) mg/cm ^{2}	0.07	0.07
AF_{res-c} (skin adherence factor - child) mg/cm ^{2}	0.2	0.2
AT_{res} (averaging time - resident carcinogenic)	365	365

Output generated 20JUN2023:20:37:43

Site-specific
Resident Soil Inputs

Variable	Resident Soil Default Value	Site-Specific Value
BW_{0-2} (mutagenic body weight) kg	15	15
BW_{2-6} (mutagenic body weight) kg	15	15
BW_{6-16} (mutagenic body weight) kg	80	80
BW_{16-26} (mutagenic body weight) kg	80	80
BW_{res-a} (body weight - adult) kg	80	80
BW_{res-c} (body weight - child) kg	15	15
$DFS_{res-adj}$ (age-adjusted soil dermal factor) mg/kg	103390	103390
$DFSM_{res-adj}$ (mutagenic age-adjusted soil dermal factor) mg/kg	428260	428260
ED_{res} (exposure duration) years	26	26
ED_{0-2} (mutagenic exposure duration) years	2	2
ED_{2-6} (mutagenic exposure duration) years	4	4
ED_{6-16} (mutagenic exposure duration) years	10	10
ED_{16-26} (mutagenic exposure duration) years	10	10
ED_{res-a} (exposure duration - adult) years	20	20
ED_{res-c} (exposure duration - child) years	6	6
EF_{res} (exposure frequency) days/year	350	350
EF_{0-2} (mutagenic exposure frequency) days/year	350	350
EF_{2-6} (mutagenic exposure frequency) days/year	350	350
EF_{6-16} (mutagenic exposure frequency) days/year	350	350
EF_{16-26} (mutagenic exposure frequency) days/year	350	350
EF_{res-a} (exposure frequency - adult) days/year	350	350
EF_{res-c} (exposure frequency - child) days/year	350	350
ET_{res} (exposure time) hours/day	24	24
ET_{0-2} (mutagenic exposure time) hours/day	24	24
ET_{2-6} (mutagenic exposure time) hours/day	24	24
ET_{6-16} (mutagenic exposure time) hours/day	24	24
ET_{16-26} (mutagenic exposure time) hours/day	24	24
ET_{res-a} (adult exposure time) hours/day	24	24
ET_{res-c} (child exposure time) hours/day	24	24
THQ (target hazard quotient) unitless	0.1	1
$IFS_{res-adj}$ (age-adjusted soil ingestion factor) mg/kg	36750	36750

Output generated 20JUN2023:20:37:43

Site-specific
Resident Soil Inputs

Variable	Resident Soil Default Value	Site-Specific Value
$IFSM_{res\text{-}adj}$ (mutagenic age-adjusted soil ingestion factor) mg/kg	166833.3	166833.3
$IRS_{0\text{-}2}$ (mutagenic soil intake rate) mg/day	200	200
$IRS_{2\text{-}6}$ (mutagenic soil intake rate) mg/day	200	200
$IRS_{6\text{-}16}$ (mutagenic soil intake rate) mg/day	100	100
$IRS_{16\text{-}26}$ (mutagenic soil intake rate) mg/day	100	100
$IRS_{res\text{-}a}$ (soil intake rate - adult) mg/day	100	100
$IRS_{res\text{-}c}$ (soil intake rate - child) mg/day	200	200
LT (lifetime) years	70	70
$SA_{0\text{-}2}$ (mutagenic skin surface area) cm^2/day	2373	2373
$SA_{2\text{-}6}$ (mutagenic skin surface area) cm^2/day	2373	2373
$SA_{6\text{-}16}$ (mutagenic skin surface area) cm^2/day	6032	6032
$SA_{16\text{-}26}$ (mutagenic skin surface area) cm^2/day	6032	6032
$SA_{res\text{-}a}$ (skin surface area - adult) cm^2/day	6032	6032
$SA_{res\text{-}c}$ (skin surface area - child) cm^2/day	2373	2373
TR (target risk) unitless	1.0E-06	1.0E-06
T_w (groundwater temperature) Celsius	25	25
$Theta_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396	0.28396
$Theta_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15	0.15
T (exposure interval) s	819936000	819936000
T (exposure interval) yr	26	26
U_m (mean annual wind speed) m/s	4.69	4.69
U_t (equivalent threshold value)	11.32	11.32
V (fraction of vegetative cover) unitless	0.5	0.5

Site-specific

Resident Risk-Based Regional Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o $(mg/kg\text{-}day)^{-1}$	SF_o Ref	IUR $(ug/m^3)^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS
Aroclor 1254	11097-69-1	No	Yes	Organics	2.00E+00	U	5.71E-04	U	2.00E-05	U	-		1
Aroclor 1260	11096-82-5	No	Yes	Organics	2.00E+00	U	5.71E-04	U	-		-		1
Total Petroleum Hydrocarbons (Aliphatic High)	NA	No	Yes	Organics	-		-		2.00E+00	U	-		1
Total Petroleum Hydrocarbons (Aromatic High)	NA	Yes	No	Organics	-		-		3.00E-02	U	-		1

Site-specific

Resident Risk-Based Regional Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} \ (cm^3/g)	K_d \ (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C \ (K)	T_C \ Ref	Chemical Type
0.14	1	-	4.30E-02	1.30E+05	7.80E+02	2.83E-04	1.16E-02	U	651.15	U	957	U	PCB
0.14	1	-	1.44E-02	3.50E+05	2.10E+03	3.36E-04	1.37E-02	U	689.15	U	987	U	PCB
-	1	3.42E-01	3.70E-03	4.82E+03	2.89E+01	8.18E+00	3.34E+02	U	489.15	U	-		BTEX
0.13	1	-	1.62E-03	5.87E+05	-	4.57E-07	1.87E-05	U	768.15	U	969	U	BTEX

Site-specific

Resident Risk-Based Regional Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

D_{ia} \ (cm^2/s)	D_{iw} \ (cm^2/s)	D_A \ (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)
2.37E-02	6.10E-06	1.88E-08	1.36E+09	8.42E+05	-	8.42E+05	3.48E-01	8.83E-01	4.14E+00	2.35E-01
2.20E-02	5.61E-06	7.68E-09	1.36E+09	1.32E+06	-	1.32E+06	3.48E-01	8.83E-01	6.46E+00	2.40E-01
3.62E-02	6.43E-06	6.98E-03	1.36E+09	1.38E+03	-	1.38E+03	-	-	-	-
2.55E-02	6.58E-06	-	1.36E+09	-	-	-	-	-	-	-

Site-specific

Resident Risk-Based Regional Screening Levels (RSL) for Soil

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
1.56E+00	4.71E+00	-	1.17E+00	1.67E+01	2.82E+01	-	1.05E+01	2.35E-01 ca
-	-	-	-	-	-	-	-	2.40E-01 ca
1.56E+05	-	-	1.56E+05	1.67E+06	-	-	1.67E+06	1.56E+05 nc sat max
2.35E+03	7.61E+03	-	1.79E+03	2.50E+04	4.56E+04	-	1.62E+04	1.79E+03 nc

Table E-6
Construction Worker Inputs and Risk-Based Regional Screening Levels for Soil at the Iron Gate Substation

The Excel table file is available upon request.

Site-specific
Construction Worker Inputs

Variable	Construction Worker Soil - Other Default Value	Site-Specific Value
$A_{c\text{-}doz}$ (areal extent of dozing) acres	.	0.032
A_{excav} (area of excavation site) m^2	.	128
$A_{c\text{-}grade}$ (areal extent of grading) acres	.	0.032
A (PEF Dispersion Constant)	2.4538	2.4538
A_{surf} (areal extent of site) m^2	2023.43	2023.43
A_{till} (areal extent of tilling) acres	.	0
A (VF Dispersion Constant)	2.4538	2.4538
B_l (dozing blade length) m	.	3.7
B_l (grading blade length) m	.	3.7
B (PEF Dispersion Constant)	17.5660	17.5660
B (VF Dispersion Constant)	17.5660	17.5660
C (PEF Dispersion Constant)	189.0426	189.0426
C (VF Dispersion Constant)	189.0426	189.0426
d_{excav} (average depth of excavation site) m	.	3
DW_{con} (days worked - construction worker) days/week	5	5
EW_{con} (weeks worked - construction worker) weeks/year	50	50
F_D Unitless Dispersion Correction Factor	0.185837208	0.185837208
foc (fraction organic carbon in soil) g/g	0.006	0.006
F(x) (function dependant on U_m/U_t derived using Cowherd et al. (1985))	0.194	0.194
$J`_T$ (g/m^2s)	.	0.0000006162233
M_{doz} (dust emitted from dozing operations) g	.	1.0400305410495
M_{excav} (dust emitted from excavation soil dumping) g	.	157.33378428203
M_{grade} (dust emitted from grading operations) g	.	15.283768070918
$M_{m\text{-}doz}$ (Gravimetric soil moisture content) %	7.9	7.9
$M_{m\text{-}excav}$ (Gravimetric soil moisture content) %	12	12
M_{wind} (dust emitted by wind erosion) g	8803.91354585	8803.91354585
$N_{A\text{-}doz}$ (number of times site was dozed)	.	1
$N_{A\text{-}dump}$ (number of times soil is dumped)	2	2
$N_{A\text{-}grade}$ (number of times site was graded)	.	1
$N_{A\text{-}till}$ (number of times soil is tilled)	2	2

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Site-specific
Construction Worker Inputs

Variable	Construction Worker Soil - Other Default Value	Site-Specific Value
n (total soil porosity) L_{pore}/L_{soil}	0.43396	0.43396
p_b (dry soil bulk density) g/cm ^{3}	1.5	1.5
p_b (dry soil bulk density - mass limit) g/cm ^{3}	1.5	1.5
p_s (soil particle density) g/cm ^{3}	2.65	2.65
Q/C_{sa} (g/m^2-s per kg/m^3)	14.31407	14.31407
Q/C_{vol} (g/m^2-s per kg/m^3)	14.31407	14.31407
Q/C_{sa} (g/m^2-s per kg/m^3)	14.31407	14.31407
p_{soil} (density) g/cm ^{3} - chemical-specific	1.68	1.68
A_s ($VF_{mlim-sc}$ acres)	0.5	0.5
A_s ($VF_{ulim-sc}$ acres)	0.5	0.5
s_{doz} (soil silt content) %	6.9	6.9
AF_{con} (skin adherence factor - construction worker) mg/cm ^{2}	0.3	0.3
AT_{con} (averaging time - construction worker) days	365	365
AT_{con-a} (averaging time - construction worker) days	350	350
BW_{con} (body weight - construction worker) kg	80	80
ED_{con} (exposure duration - construction worker) yr	1	1
EF_{con} (exposure frequency - construction worker) day/yr	250	250
ET_{con} (exposure time - construction worker) hr/day	8	8
THQ (target hazard quotient) unitless	0.1	1
IRS_{con} (soil ingestion rate - construction worker) mg/day	330	330
LT (lifetime) yr	70	70
SA_{con} (surface area - construction worker) cm ^{2}/day	3527	3527
TR (target cancer risk) unitless	1.0E-06	1.0E-06
S_{doz} (dozing speed) kph	11.4	11.4
S_{grade} (dozing speed) kph	11.4	11.4
s_{till} (soil silt content) %	18	18
t_c (overall duration of construction) hours	8400	8400
T_c (overall duration of construction) s	30240000	30240000
$Theta_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396	0.28396
$Theta_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15	0.15

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Site-specific
Construction Worker Inputs

Variable	Construction Worker Soil - Other Default Value	Site-Specific Value
T (time over which traffic occurs) s	7200000	7200000
T_t (overall duration of traffic) s	7200000	7200000
U_m (mean annual wind speed) m/s	4.69	4.69
U_t (equivalent threshold value) m/s	11.32	11.32
VKT_{doz} (sum of fleet vehicle km traveled) km	.	0.0350010810810
VKT_{grade} (sum of fleet vehicle km traveled) km	.	0.0350010810810
V (fraction of vegetative cover)	0	0

Site-specific

Construction Worker Risk-Based Regional Screening Levels (RSL) for Soil - Other Construction Activities

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

Subchronic toxicity values will be used where available. RfC and RfD references will be followed by either 'Chronic' or 'Subchronic' to indicate which toxicity value was used.

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o (mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)
Aroclor 1254	11097-69-1	No	Yes	Organics	2.00E+00	U	5.71E-04	U	3.00E-05	U	-		1	0.14	1	-
Aroclor 1260	11096-82-5	No	Yes	Organics	2.00E+00	U	5.71E-04	U	-		-		1	0.14	1	-
Total Petroleum Hydrocarbons (Aliphatic High)	NA	No	Yes	Organics	-		-		3.00E+01	U	-		1	-	1	3.42E-01
Total Petroleum Hydrocarbons (Aromatic High)	NA	Yes	No	Organics	-		-		3.00E-02	U	-		1	0.13	1	-

Site-specific

Construction Worker Risk-Based Regional Screening Levels (RSL) for Soil - Other Construction Activities

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

Subchronic toxicity values will be used where available. RfC and RfD references will be followed by either 'Chronic' or 'Subchronic' to indicate which toxicity value was used.

S (mg/L)	K_{oc} \ (cm^3/g)	K_d \ (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C \ (K)	T_C \ Ref	Chemical Type	D_{ia} \ (cm^2/s)	D_{iw} \ (cm^2/s)	D_A \ (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)
4.30E-02	1.30E+05	7.80E+02	2.83E-04	1.16E-02	U	651.15	U	957	U	PCB	2.37E-02	6.10E-06	1.88E-08	1.25E+08	-
1.44E-02	3.50E+05	2.10E+03	3.36E-04	1.37E-02	U	689.15	U	987	U	PCB	2.20E-02	5.61E-06	7.68E-09	1.25E+08	-
3.70E-03	4.82E+03	2.89E+01	8.18E+00	3.34E+02	U	489.15	U	-		BTEX	3.62E-02	6.43E-06	6.98E-03	1.25E+08	-
1.62E-03	5.87E+05	-	4.57E-07	1.87E-05	U	768.15	U	969	U	BTEX	2.55E-02	6.58E-06	-	1.25E+08	-

Site-specific

Construction Worker Risk-Based Regional Screening Levels (RSL) for Soil - Other Construction Activities

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = OW; W = TEF applied; E = RPF applied; G = see user guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

Subchronic toxicity values will be used where available. RfC and RfD references will be followed by either 'Chronic' or 'Subchronic' to indicate which toxicity value was used.

Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)	Inhalation SL THQ=1 (mg/kg)	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)
-	1.83E+05	1.24E+01	2.76E+01	9.79E+01	7.86E+00	1.02E+01	2.27E+01	-	7.03E+00	7.03E+00 nc
-	2.85E+05	1.24E+01	2.76E+01	1.53E+02	8.10E+00	-	-	-	-	8.10E+00 ca
-	2.99E+02	-	-	-	-	1.02E+07	-	-	1.02E+07	1.02E+07 nc sat max
-	-	-	-	-	-	1.02E+04	2.44E+04	-	7.19E+03	7.19E+03 nc

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Appendix F
Retained Easement Environmental Review

Jacobs

Lower Klamath Project (FERC No. P-14803)

Retained Easement Environmental Review, Siskiyou County, California

Final

March 2024

PACIFICORP

Lower Klamath Project
(FERC No. P-14803)

Project No:	D3514100
Document Title:	Retained Easement Environmental Review, Siskiyou County, California
Document No.:	230823232607_2841e7bc
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Client Name:	PacifiCorp, Demian Ebert, Klamath Program Manager, 503-813-6625
Project Manager:	Emilio Candanoza, Jacobs, 541-768-3509

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Executive Summary

As part of the Lower Klamath Project (Project), PacifiCorp, the Klamath River Renewal Corporation (KRRC), and the states of California and Oregon have entered into a legally binding Property Transfer Agreement (Agreement) that identifies 17 pre-existing environmental conditions (PECs) located in the states of California and Oregon. The PECs are identified in Exhibit C of the Agreement.

Retained easements were not assessed under the Phase 1 environmental site assessments (ESAs) performed by AECOM in 2018 and 2020 for the Copco No. 1, Copco No. 2, and Iron Gate developments as part of the Agreement, and because the retained easements were not assessed, there is potential for recommended environmental conditions (RECs) to be present within the easements.

Purpose

This report presents the results of an environmental review conducted by Jacobs Engineering Group Inc. (Jacobs) for PacifiCorp. The portion of the Project investigated by Jacobs during this environmental review is limited to the retained easements that comprise approximately 320 acres of the Project in Siskiyou County, California. A separate environmental review has been prepared for the retained easements associated with the Project in Klamath County, Oregon. The purpose of this environmental review is to identify PECs within or adjacent to the retained easements.

Methodology

The environmental review consisted of a desktop review and site reconnaissance surveys of the retained easements. The desktop review included review of previous Phase I ESAs, Phase II site investigations, a site investigation report, the Environmental Database Report (EDR 2023), and other online database searches of regulatory agency files from the California State Water Resources Control Board's GeoTracker website, the California Department of Toxic Substances Control's EnviroStor website, and the California Environmental Protection Agency's portal website. Additional information regarding locations of oil and gas wells or wellfields was accessed from the California Department of Conservation, Geologic Energy Management Division, and locations of underground pipelines from the U.S. Department of Transportation National Pipeline Mapping System.

Summary of Results

Based on the EDR review and site reconnaissance conducted at the retained easements, no new PECs were identified at the retained easements. Known PECs within the retained easements are being addressed either through closure following the site investigation (e.g., Copco No. 2 Former Mobile Oil Containment Building and Copco No. 2 Underground Storage Tank) or through site-specific cleanup work (e.g., Copco No. 2 Wood Pile and Copco No. 2 Transformer Fire). See the *California Site Investigation Report* (Jacobs 2023a) and *Soil Removal Action Plan for California* (Jacobs 2023b) for details on these three sites.

Summary of Other Environmental Issues Identified in Retained Easement Areas

The following information obtained during the environmental review of retained easement area was determined not to present additional PECs:

- A Phase I ESA completed by AECOM in March 2020 identified several Copco No. 2 debris piles or burn pits, as well as areas of stressed vegetation and remains of building foundations that were considered

a REC. Other debris observed included potentially treated wood, metal drums, and metal debris. Only a portion of the Copco No. 2 debris piles is located within the retained easements area boundary.

- During the site reconnaissance surveys performed by qualified staff in April 2023, the following was observed in the retained easements area: 55-gallon drums with bullet holes, other metal debris, wooden power poles and large rectangular wooden beams, wire, concrete, household debris, and an area of stressed vegetation. None of these observations are considered PECs.

Contents

Attachments

Tables

Figures

Acronyms and Abbreviations

°F	degree(s) Fahrenheit
AST	Aboveground Storage Tank
bgs	below ground surface
CalEPA	California Environmental Protection Agency
CERS	CalEPA Regulated Site
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHMIRS	California Hazardous Materials Incident Reporting System
CIWQS	California Integrated Water Quality System
CORRACTS	Corrective Action Tracking System
CORTESE	Hazardous Wastes and Substances List
CPS	Cleanup Program Sites
DRO	diesel range organics
DTSC	California Department of Toxic Substances Control
ECHO	Enforcement and Compliance History Information
EDR	Environmental Database Report
EDR, Inc.	Environmental Data Resources, Inc.
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
EnviroStor	DTSC's EnviroStor website
ERNS	Emergency Response Notification System
ESA	environmental site assessment
FEMA	Federal Emergency Management Agency
FID	Facility Inventory Database
FINDS	Facility Index System/Facility Registry System
GeoTracker	SWRCB's GeoTracker website
HAZNET	Facility Manifest Data
HHRA	human health risk assessment
HMS	Industrial Waste and Underground Storage Tank Sites
HWS	Hazardous Waste Sites
ISA	initial site assessment
Jacobs	Jacobs Engineering Group Inc.
KRRC	Klamath River Renewal Corporation
LQG	Large Quantity Generator

LUST	leaking underground storage tank
N/A	not applicable
NPL	National Priorities List
PCB	polychlorinated biphenyl
PEC	pre-existing environmental condition
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RGA	Recovered Government Archive
SEMS	Superfund Enterprise Management System
SI Report	*California Site Investigation Report*
SLIC	Spills, Leaks, Investigations, and Cleanups
SQG	Small Quantity Generator
SWEEPS	Statewide Evaluation and Environmental Planning System
SWRCB	[California] State Water Resources Control Board
UST	underground storage tank
WMUDS	Waste Management Unit Data System

1. Introduction

As part of the Lower Klamath Project (Project), PacifiCorp, the Klamath River Renewal Corporation (KRRC), and the states of Oregon and California have entered into a legally binding Property Transfer Agreement (Agreement) that identifies 17 pre-existing environmental conditions (PECs) located in the states of California and Oregon. The PECs are identified in Exhibit C of the Agreement.

Retained easements were not assessed under the Phase 1 environmental site assessments (ESAs) performed for the Copco No. 1, Copco No. 2, and Iron Gate developments (AECOM 2018, 2020b).Because the retained easements were not assessed, there is potential for recommended environmental conditions (RECs) to be present within the retained easements.

This report presents the results of an environmental review conducted by Jacobs Engineering Group Inc. (Jacobs) on behalf of PacifiCorp for the retained easements that are part of the Project in Siskiyou County, California (Figure 1-1). A separate environmental review has been prepared for the retained easements that are part of the Project in Klamath County, Oregon.

1.1 Project Background

This environmental review was performed specifically for the approximately 320 acres of retained easements associated with the California portion of the Project to identify areas of potential environmental concern within or adjacent to the retained easements. Areas of potential concern that have been identified within or adjacent to the retained easements may require additional investigation or analysis.

1.2 Scope of Work

The scope of this environmental review included an environmental desktop review of public records and site reconnaissance surveys of the retained easements. The environmental desktop review was limited to a review of previous environmental reports, an Environmental Database Report (EDR 2023) containing historical topographic maps and historical aerial photographs, and other online database searches of regulatory agency files from the California State Water Resources Control Board's (SWRCB's) GeoTracker website (SWRCB 2023) and the California Department of Toxic Substances Control's (DTSC's) EnviroStor website (DTSC 2023). Additional information regarding locations of oil and gas wells or wellfields was accessed from the California Department of Conservation, Geologic Energy Management Division, and locations of underground pipelines from the U.S. Department of Transportation National Pipeline Mapping System (NPMS 2023).

Jacobs reviewed these sources to identify properties with known or suspected potential environmental concerns that are adjacent to or topographically upgradient of the retained easements and have a likely potential to affect soil and groundwater at the retained easements. Jacobs based its assessment on location, chemical constituent types, and potentially affected media (soil and groundwater).

Preparation of this environmental review did not include the following items:

- Identification of out-of-scope considerations such as asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural/historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, high voltage power lines, or mold.
- Title search, environmental lien search, or identification of activity use limitations.

- Interviews with current or historical property owners or site managers.
- Search of historic Sanborn Fire Insurance maps or historical city directories.

Site reconnaissance surveys were conducted on April 12, 13, and 14 of 2023 to visually survey the retained easements and identify evidence of new PECs (i.e., PECs not previously identified in the Agreement that are also within a retained easement).

1.3 Significant Assumptions

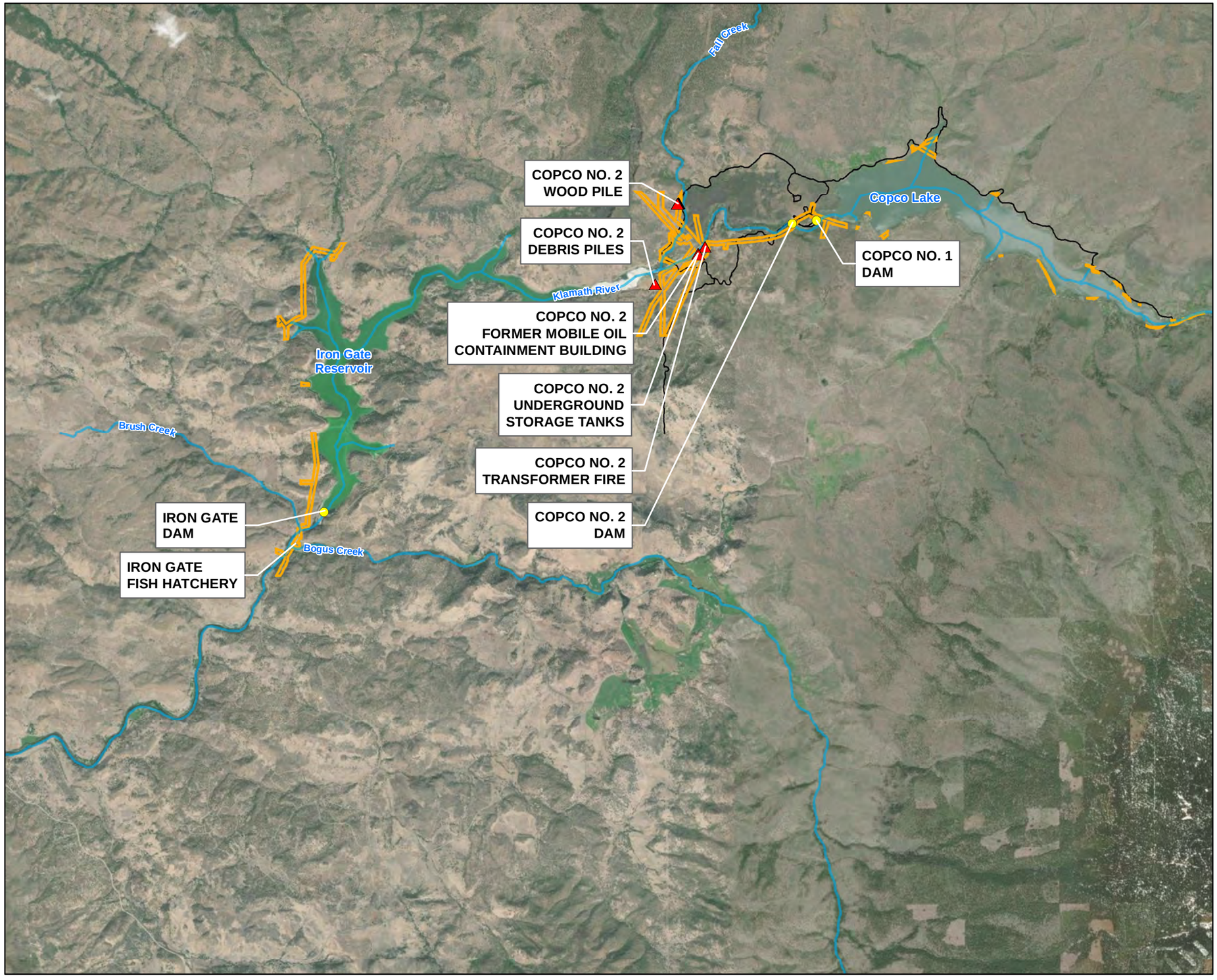
This environmental review did not include any sampling, monitoring, analytical, or geotechnical investigations. Jacobs assumes responsibility only for those conditions specifically authorized for investigation, as described in this report.

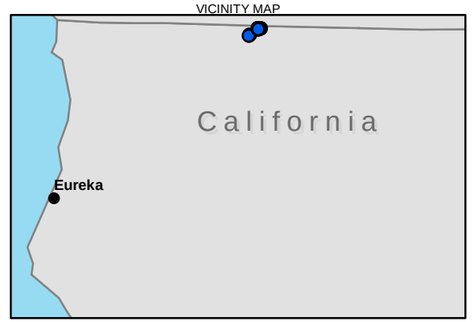
1.4 Special Terms and Conditions

Opinions given in this environmental review relative to the potential for hazardous materials or petroleum hydrocarbons to exist within the retained easements are based on information derived from information provided in the Environmental Database Report (EDR 2023) and other online sources described in this environmental review.

Public information sources have been reviewed and assumed to be providing complete and accurate information, without independent verification of that information. The findings and conclusions in this report are based solely on the limited scope of this environmental review, including information from a variety of sources that Jacobs believes to be reliable. Because the scope of an environmental review is necessarily limited and based, in part, on third-party sources and associated assumptions, Jacobs does not warrant that the retained easements do not include hazardous material or petroleum hydrocarbon releases in areas not identified in this report.

No investigation is thorough enough to completely exclude the presence of hazardous substances at a given site. If hazardous substances or hazardous conditions have not been identified during this review, such a finding should not be construed as a guarantee of the absence of such substances or conditions, but rather as the result of the services performed within the scope and limitations of the work performed.





LEGEND

- Dam to be Removed
- Recognized Environmental Condition
- River/Creek
- Access Roads
- Retained Easements on KRRC Property

N

0 0.5 1
Miles

FIGURE 1-1
Retained Easements and
Recognized Environmental Conditions
Environmental Review
Lower Klamath Hydroelectric Project

Jacobs

2. Records Review

A review of certain public records was performed to help identify areas of potential environmental concern within the retained easements associated with the Project and adjoining properties. This section summarizes the record review results.

2.1 Standard Environmental Record Sources

An environmental database search of the retained easement areas associated with the Project was ordered from EDR, Inc., as a custom search, encompassing a 1-mile buffer around the Subject Property. Attachment 1 contains a copy of the Environmental Database Report (EDR 2023). The EDR identified 13 sites located within a 1-mile search distance of the Subject Property.

The 13 identified sites comprised locations with hazardous materials or hazardous waste handling, storage, transportation, or where potential releases were reported, as follows: one State Registered AST Facility List site, one California Environmental Protection Agency Regulated Site (CERS) hazardous waste site, one CERS tank, one California Hazardous Materials Information Reporting System site, one Facility Index System/Facility Registry System site, two Facility Manifest Data (Haznet) sites, one California Integrated Water Quality System site, two CERS Portal Database, and three Hazardous Waste Tracking System sites (Table 2-1).

Sites with impacts to soil or groundwater (including those that have received regulatory closure) have the potential to impact the retained easement areas. These sites were further evaluated using available information from the SWRCB's GeoTracker website (SWRCB 2023) or DTSC's EnviroStor website (DTSC 2023). Based on a review of these 13 sites, none of the locations identified in the EDR have the potential to impact the retained easement areas (Table 2-1).

Table 2-1. Potential Environmental Concerns from Regulatory Database Search Sites

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD	Potential Environmental Concern for the Retained Easement Areas
Federal NPL Site List	1 mile	0	N/A
Federal Proposed NPL	1 mile	0	N/A
Federal NPL LIENS	Property	0	N/A
Federal Delisted NPL Site List	1 mile	0	N/A
Federal Facility Site Information Listing	0.5 mile	0	N/A
Federal SEMS List	0.5 mile	0	N/A
Federal SEMS-ARCHIVE Site List	0.5 mile	0	N/A
Federal RCRA CORRACTS	1 mile	0	N/A
Federal RCRA non-CORRACTS Treatment, Storage, and Disposal Facilities List	0.5 mile	0	N/A
Federal RCRA LQG List	0.25 mile	0	N/A
Federal RCRA SQG List	0.25 mile	0	N/A

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD	Potential Environmental Concern for the Retained Easement Areas
Federal RCRA Very SQG List	0.25 mile	0	N/A
Federal Institutional/Engineering Control Registries	0.5 mile	0	N/A
Federal ERNS List	Property	0	N/A
RESPONSE State response sites	1 mile	0	N/A
State and Tribal Lists of Comprehensive Environmental Response, Compensation, and Liability Information System Equivalent for Known HWS Identified for Investigation and/or Remediation (ENVIROSTOR)	1 mile	0	N/A
State and Tribal Landfills or Solid Waste Facilities List	0.5 mile	0	N/A
State and Tribal LUST List	0.5 mile	0	N/A
Indian LUST List	0.5 mile	0	N/A
CPS/SLIC sites (GeoTracker)	0.5 mile	0	N/A
FEMA UST List	0.25 mile	0	N/A
State Registered UST Facility List	0.25 mile	0	N/A
State Registered AST Facility List	0.25 mile	1	No
Tribal USTs	0.25 mile	0	N/A
State and Tribal Voluntary Cleanup Sites List	0.5 mile	0	N/A
State and Tribal Brownfields Sites	0.5 mile	0	N/A
Waste Management WMUDS/SWAT	0.25 mile	0	N/A
HIST Cal Sites	1 mile	0	N/A
SCH School Sites	0.25 mile	0	N/A
CERS HAZ WASTE	0.25 mile	1	No
SWEEPS UST	0.25 mile	0	N/A
Historic UST	0.25 mile	0	N/A
Cal FID UST	0.25 mile	0	N/A
CERS TANKS	0.25 mile	1	No
CHMIRS	Property	1	No
RCRA NonGen	0.25 mile	0	N/A
FINDS	Property	1	No
ECHO	Property	0	N/A

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD	Potential Environmental Concern for the Retained Easement Areas
Dry Cleaners	0.25 mile	0	N/A
EMI	Property	0	N/A
ENF	Property	0	N/A
HAZNET	Property	2	No
Historical CORTESE	0.5 mile	0	N/A
Los Angeles County HMS (Industrial Waste and Underground Storage Tank Sites)	Property	0	N/A
Notify 65	1 mile	0	N/A
CIWQS	Property	1	No
CERS Portal database	Property	2	No
EDR Hist Auto	0.125 mile	0	N/A
EDR Hist Cleaner	0.125 mile	0	N/A
RGA (LUST)	Property	0	N/A
HWTS	Property	3	No
Total Records Identified		**13**	

AST = aboveground storage tank

CERS = California Environmental Protection Agency (CalEPA) Regulated Site

CHMIRS = California Hazardous Materials Information Reporting System

CIWQS = California Integrated Water Quality System

CORRACTS = Corrective Action Tracking System

CORTESE = Hazardous Wastes and Substances List

CPS = Cleanup Program Sites

ECHO = Enforcement and Compliance History Information

ENF = Enforcement Action Listing

EMI = Emissions Inventory Data

ERNS = Emergency Response Notification System

FID = Facility Inventory Database

FINDS = Facility Index System/Facility Registry System

FEMA = Federal Emergency Management Agency

HAZNET = Facility Manifest Data

HMS = Industrial Waste and Underground Storage Tank Sites

HWS = Hazardous Waste Sites

HWTS = Hazardous Waste Tracking System

LQG = Large Quantity Generators

LUST = leaking underground storage tank

N/A = not applicable

NPL = National Priorities List

RCRA = Resource Conservation and Recovery Act

RGA = Recovered Government Archive

SEMS = Superfund Enterprise Management System

SWEEPS = Statewide Evaluation and Environmental Planning System

SQG = Small Quantity Generators

UST = underground storage tank

WMUDS/SWAT = State Water Resources Control Board Waste Management Unit Data System List

2.2 Historical Use Information of Site and Adjacent Properties

Jacobs performed a review of historical aerial photographs and U.S. Geological Survey (USGS) topographical maps, provided by EDR, to obtain historical use information for the site and adjacent properties (EDR 2023; Attachment 1).

2.2.1 Aerial Photographs

Aerial photographs from 1951, 1954, 1975, 1982, 1983, 1993, 1998, 2000, 2001, 2006, 2009, 2012, 2016, and 2020 were provided by EDR. Aerial photographs from 1982, 1983, 2000, and 2001 only covered a portion of the retained easements. Beginning in 1951, the aerial photographs show the Project features and roads already present. In the 1975 photographs, additional ancillary buildings and structures in the Copco No. 2 Dam area are shown. From 1975 through 2020, no substantial changes occurred other than the addition of small buildings and rural residences in the area.

2.2.2 Historical Topographic Maps

Topographic maps depict cultural and natural surface features and elevation contours. Topographic maps were provided by EDR for the years 1922, 1934, 1941, 1954, 1955, 1962, 1984, 1985, 1988, 2001, 2012, 2014, 2015, 2017, 2018, and 2020. In the 1922 topographic map, the Copco Dam and Lake are shown. In 1962, the Iron Gate Dam is shown. In 1984, the Iron Gate Reservoir is also shown along with numerous small ancillary structures at Iron Gate and Copco dams. In 1984, several rural residential structures are present. From 1984 through 2020, no substantial changes occurred.

2.3 Additional Environmental Record Sources

In addition to the environmental database review, records from other local, county, and state agencies were reviewed to obtain information on the retained easements and adjoining properties.

Records were accessed from California state agencies in March 2023 for file information associated with the retained easements and adjoining properties. Information reviewed from DTSC's EnviroStor website, SWRCB's Geotracker website, and CalEPA's website did not identify any additional sites (Table 2-2).

Table 2-2. Regulatory Agency File Review Summary

Agency	Information Reviewed	Summary of Findings
DTSC	Information on Subject Property and adjoining properties	Information reviewed from DTSC's EnviroStor website identified no additional sites beyond those listed in EDR, Inc. databases.
SWRCB	Information on Subject Property and adjoining properties	Information reviewed on the SWRCB's Geotracker website identified no additional sites beyond those listed in EDR, Inc. databases.
CalEPA	Information on Subject Property and adjoining properties	Information reviewed on the CalEPA's portal website identified no additional sites beyond those listed in EDR, Inc. databases.

2.3.1 Oil and Gas Maps

Oil and gas maps were obtained from the California Department of Conservation, Geologic Energy Management Division (California Department of Conservation 2023) to determine whether oil or gas wells are present within a 1-mile buffer of the retained easements. The results of the oil and gas map review

indicated that no oil wells, oil fields, gas fields, or geothermal wells are located within a mile of the retained easements.

2.3.2 Pipelines

Jacobs reviewed the National Pipeline Mapping System (NPMS 2023) public viewer website for gas transmission pipelines and hazardous liquid trunk lines on or close to the retained easements. According to the information reviewed, there were no gas transmission lines or hazardous liquid trunk lines within a 1-mile buffer of the retained easement areas.

2.3.3 Previous Phase I and Phase II Investigations

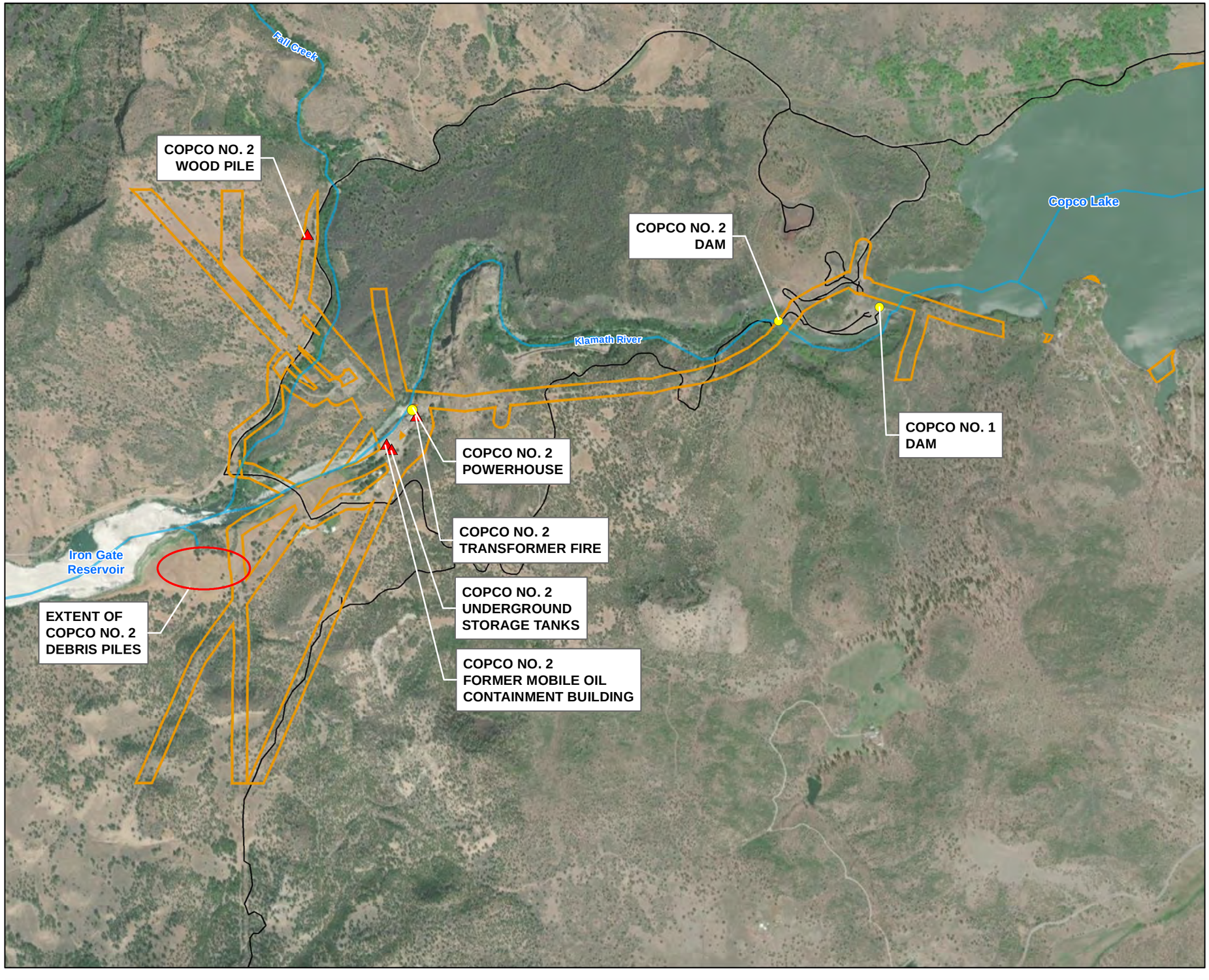
Previous Phase I and II investigations have been completed for the Project. Jacobs reviewed the following investigation reports to determine whether findings are relevant to the retained easements:

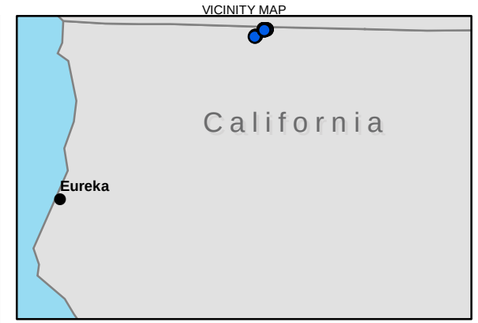
- *Phase I Environmental Site Assessments J.C. Boyle Dam, Copco No. 1 Dam, Copco No. 2 Dam, Iron Gate Dam, Iron Gate Fish Hatchery* (AECOM 2018)
- *City of Yreka Diversion Dam Phase I Environmental Site Assessment* (AECOM 2019a)
- *Fall Creek Hatchery Phase I Environmental Site Assessment* (AECOM 2019b)
- *Burn Pit at Iron Gate Hatchery Phase II Soil Investigation* (AECOM 2019c)
- *Wood-Stave Penstock and Soil Investigation* (AECOM 2020a)
- *Phase I Environmental Site Assessment of the Parcel B Lands* (AECOM 2020b)
- *California Site Investigation Report* (Jacobs 2023a)

Based on review of the above-listed documents, the following recognized environmental conditions (RECs) were identified within the retained easements:

- **Copco No. 2 Debris Piles**. A Phase I ESA completed by AECOM in March 2020 identified several debris piles or burn pits, as well as areas of stressed vegetation and remains of building foundations that were considered a REC (AECOM 2020b). Other debris observed included potentially treated wood, metal drums, and other metal debris (AECOM 2020b). Only a portion of the Copco No. 2 debris piles is located within the retained easements area boundary (Figure 2-1).
- **Copco No. 2 Former Mobile Oil Containment Building and Copco No. 2 Underground Storage Tank**. These sites are located within the retained easements (Figure 2-1). A 9,000-gallon UST was suspected to have been located to the east-northeast of the Copco No. 2 Maintenance Building. The site investigation indicated that based on the sample results, no further action was recommended for soil at the two sites, and they were recommended for closure (Jacobs 2023a).
- **Copco No. 2 Wood Pile**. A Phase I ESA completed by AECOM in March 2020 identified a wood pile that contained stacks of treated power poles that were considered a REC (AECOM 2020b). The Copco No. 2 Wood Pile is located within the retained easements boundary (Figure 2-1). A site investigation of the Copco No. 2 Wood Pile was completed by Jacobs in March 2023 (Jacobs 2023a). Jacobs recommended further action at the Copco No. 2 Wood Pile to excavate and dispose of soil from beneath the Copco No.2 Wood Pile, which would include an approximate 1,500-square-foot area to an approximate depth of 6 feet below ground surface (bgs) (Jacobs 2023a).
- **Copco No. 2 Powerhouse Transformer Fire**. The Copco No. 2 Powerhouse Transformer Fire site is located within the retained easements (Figure 2-1). The investigation completed for this site identified a leaching to groundwater risk associated with diesel range organics (DRO) above target risk levels (Jacobs 2023a). Polynuclear aromatic hydrocarbons and the polychlorinated biphenyl (PCB) Aroclor

1262 were also present above target human health risk assessment (HHRA) levels. On the basis of site investigation results, Jacobs recommended that soil impacted with DRO and the PCBs Aroclor 1262, benzo(a)pyrene, and dibenzo(a,h)anthracene should be excavated to include a 20-foot by 10-foot footprint to a depth of at least 2 feet bgs.





LEGEND

- Dam of Facility to be Removed
- Recognized Environmental Condition
- River/Creek
- Access Roads
- Retained Easements on KRRC Property

N

0 0.25 0.5
Miles

FIGURE 2-1
Copco No. 1 and Copco No. 2
Retained Easements and
Recognized Environmental Conditions
Environmental Review
Lower Klamath Hydroelectric Project

Jacobs

3. Site Reconnaissance

3.1 Methodology and Limiting Conditions

This report is based in part on observations made by Jacobs during a site visit conducted on April 12, 13, and 14 of 2023 to visually survey the retained easement areas and identify evidence of new PECs, or PECs not previously identified in the previous Phase 1 ESAs and Phase II site investigations. Areas surveyed by the Phase 1 ESA and Parcel B Land ESA were not examined in this survey. During the site reconnaissance, the weather was mostly sunny with a temperature range of 36 degrees Fahrenheit (°F) to 65°F. Photographs from the site reconnaissance are presented in Attachment 2.

3.2 General Site Setting

3.2.1 Description of the Site

The retained easements serve as the right-of-way on KRRC-owned property containing electrical transmission and distribution system (Photographs 1, 2, and 3) and other ancillary infrastructure and related access roads. Per the Agreement, the retained easements are located on property now owned by the KRRC and that will eventually be transferred to the State of California. Included are related electrical transmission facilities such as towers, poles, pads, anchors, supports, transformers, switchyards, vaults, substations, communications facilities, fiber optic or other communications equipment, and any other improvements or facilities associated with the management of these facilities. The retained easement area is the current physical location of the transmission facilities along with an addition area of 100 feet, as measured on the surface of the property and from each side of the transmission or distribution facility.

The retained easements extend from south of the Iron Gate Fish Hatchery running generally north to the northwest finger of Iron Gate Reservoir (Figure 3-1) and from southwest of Copco Village running mostly east to the Copco No 1 Switchyard and along the south and north sides of Copco Lake. The topography varies from rolling hills to steep terrain and cliffs of several hundred feet. Vegetation is mostly grass and shrubs with scattered oak and juniper woodlands and areas with evergreen trees in steeper terrain. Elevations range from 2,280 feet above sea level near the Iron Gate Fish Hatchery to 3,040 feet above sea level north of the Copco No. 2 Powerhouse. Most of the retained easement area around Copco Lake were underwater during reconnaissance surveys except for the south side of the lake from Copco No. 1 Dam and extending 2,200 linear feet to the east (Figure 2-1).

3.2.2 Hazardous Substance Use and Storage

No hazardous substance use and storage areas were observed.

3.2.3 Hazardous Material Storage and Waste Areas

No hazardous material storage and waste areas were observed.

3.2.4 Transformers and PCB-Containing Equipment

Pole-mounted transformers were observed as part of the existing PacifiCorp electrical distribution system and appear to be in good working condition. None of PacifiCorp's existing transformers use PCB-containing oil.

3.2.5 Petroleum Products

No petroleum products were observed.

3.2.6 Underground Storage Tanks

No underground storage tanks were observed.

3.2.7 Aboveground Storage Tanks

No aboveground storage tanks were observed.

3.2.8 Other Suspect Containers

Other suspect containers were observed and included rusted 55-gallon drums (Photographs 4, 5, and 6), miscellaneous cans and wires, including 1-gallon paint cans, and sheet metal, metal cans, glass bottles, and household debris (Photographs 7 and 8). Drums had multiple bullets holes indicating they have been used for target shooting (Photographs 4 and 5). One drum was cut in half and appeared to be used as a feeding trough (Photograph 6).

3.2.9 Pits, Sumps, Drywells, or Catchbasins

No pits, sumps, drywells, or catchbasins were observed.

3.2.10 Solid Waste Dumping/Landfill

While no solid waste dumping/landfill areas were observed, there were instances of general wood debris, power poles, miscellaneous metals, concrete, and household debris observed. Wood debris included treated wood posts, beams, fencing, and miscellaneous wooden material (Photographs 4, 9, 10, and 11). A small quantity of abandoned power poles (approximately one to five per location) were observed at several locations and in various states of decay (Photograph 12). Miscellaneous metals included wire and cabling (Photographs 7 and 13), corrugated sheet metal (Photograph 8), pipes (Photographs 13 and 14), and fencing. An abandoned old concrete foundation (Photograph 15) was observed as well as one occurrence of household debris containing broken glass and bottles (Photograph 8).

3.2.11 Stained Soil/Stressed Vegetation

An area of approximately 35 feet by 25 feet of stressed vegetation was observed (Photograph 16). The area observed appeared to be a topographically low point and the soil was soft and saturated.

3.2.12 Other Environmental Considerations

Not all sections of the retained easement areas were observed because steep terrain and slopes prevented safe access (Photograph 17). These areas were observed from the last accessible point opposite the inaccessible area. No debris, containers, or indication of contamination were observed or noted from the observation points.

LEGEND

- Dam to be Removed
- Recognized Environmental Condition
- River/Creek
- Access Roads
- Retained Easements on KRRC Property

N

0 1,000 2,000
Feet

FIGURE 3-1
Iron Gate
Retained Easements and
Recognized Environmental Conditions
Environmental Review
Lower Klamath Hydroelectric Project

Jacobs

4. Findings and Conclusions

This report presents the results of the environmental review conducted by Jacobs for the retained easement areas associated with the Project in Siskiyou County, California. Based on reviews of the EDR and previous investigations, and site reconnaissance conducted in the retained easement areas, no new PECs were identified.

4.1 Other Environmental Issues Identified in Retained Easement Areas

The following information obtained during the environmental review of retained easement areas was determined not to present additional PECs:

- A Phase I ESA completed by AECOM in March 2020 identified Copco No. 2 debris piles or burn pits, as well as areas of stressed vegetation and remains of building foundations that were considered a REC (AECOM 2020b). Other debris observed included potentially treated wood, metal drums, and other metal debris (AECOM 2020b). Only a portion of the Copco No. 2 debris piles is located within the retained easement area boundary (Figure 2-1).
- During the site reconnaissance surveys performed in April 2023, the following was observed at the Copco No. 2 debris piles in the retained easements area: 55-gallon drums with bullet holes (Photographs 4 and 5), wooden power poles and large rectangular wooden beams (Photographs 3 and 4), and a wooden corral-type structure with fine wire fence stored inside (Photograph 11). None of these observations are considered PECs.

Three areas were identified in the Phase I ESA and investigated and resolved in accordance with the recommendations of the *California Site Investigation Report* (SI Report) (Jacobs 2023a):

- **Copco No. 2 Former Mobile Oil Containment Building and Copco No. 2 UST**. These sites were combined into one exposure area in the SI Report and are located within the retained easements (Figure 2-1). The existing Maintenance Building is within the footprint of where the former Mobile Oil Containment Building was located. A 9,000-gallon UST was suspected to have been located to the east-northeast of the Copco No. 2 Maintenance Building and just below Daggett Road. The site investigation indicated that based on the sample results, no further action was recommended at the two sites, and they were recommended for closure (Jacobs 2023a).
- **Copco No. 2 Wood Pile**. A Phase I ESA completed by AECOM in March 2020 identified a wood pile that contained stacks of treated power poles that were considered a REC (AECOM 2020b). The Copco No. 2 Wood Pile is located within the retained easements boundary (Figure 2-1). The SI Report recommended further action at the Copco No. 2 Wood Pile to excavate and dispose of soil from beneath the Wood Pile, (Jacobs 2023a). This work is being completed under the *Soil Removal Action Plan for California* (Jacobs 2023b).
- **Copco No. 2 Powerhouse Transformer Fire**. The Copco No. 2 Powerhouse Transformer Fire and Oil release is located within the retained easements (Figure 2-1). The investigation completed for this site identified a leaching to groundwater risk associated with diesel range organics (DRO) above target risk levels. Polynuclear aromatic hydrocarbons and the PCB Aroclor 1262 were also present above target HHRA levels. The SI Report recommended that soil impacted with DRO and the PCBs Aroclor 1262, benzo(a)pyrene, and dibenzo(a,h)anthracene should be excavated to include a 20-foot by 10-foot footprint to a depth of at least 2 feet bgs. This work is being completed under the *Soil Removal Action Plan for California* (Jacobs 2023b).

4.2 Site Reconnaissance Results

During the site reconnaissance surveys conducted in April 2023, miscellaneous metal debris (rusted 55-gallon drums, 1- to 2-gallon rectangular cans, paint cans, pipes, wire/cabling, corrugated sheet metal, and fencing), wood debris (treated wood posts, beams, fencing, abandoned power poles, and miscellaneous wooden material), household debris (broken glass, bottles, and household trash), concrete (foundation), and an area of stressed vegetation was observed at various locations across the retained easements. The debris areas were limited in size and quantity of material, and no indications of contamination or a release were observed. Based on the limited quantity of debris, none of these observations are considered PECs.

5. Qualifications of Environmental Professionals

Mr. Alan Bradford is a Jacobs senior hydrogeologist/senior project manager with more than 35 years of project management and technical experience involving hydrogeologic characterization, Phase I and Phase II ESAs, initial site assessments (ISAs), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial investigations and feasibility studies, Resource Conservation and Recovery Act facilities investigations, groundwater basin studies, waste management, underground storage tank services, and remediation for municipal, government, and private industry clients. He is a California Professional Geologist (No. 6119) and California Certified Hydrogeologist (No. HG 48).

Mr. Dave Golles is a Jacobs project environmental consultant with more than 26 years of experience in managing and performing Phase I and Phase II ESAs and ISAs. He has completed numerous site assessments for municipal, government, and private industry clients. He also performs environmental evaluations and prepares environmental compliance documents (environmental impact statements, environmental assessments, and environmental impact reports) under the National Environmental Policy Act and California Environmental Quality Act.

6. References

AECOM Technical Services, Inc. (AECOM). 2018. *Phase I Environmental Site Assessment, J.C. Boyle Dam, Copco No. 1 Dam, Copco No. 2 Dam, Iron Gate Dam, Iron Gate Fish Hatchery, Klamath River Renewal Project.* November.

AECOM Technical Services, Inc. (AECOM). 2019a. *Phase I Environmental Site Assessment, City of Yreka Diversion Dam, Klamath River Renewal Project.* July.

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Attachment 1
Environmental Database Report

Available upon request.

Attachment 2
Site Photographs

Jacobs

Attachment 2
Site Photographs

Project Title	**Retained Easement Environmental Review for the Lower Klamath Hydroelectric Project**
Location	Siskiyou County, California
Date	August 2023

Photograph 1: Distribution Easement

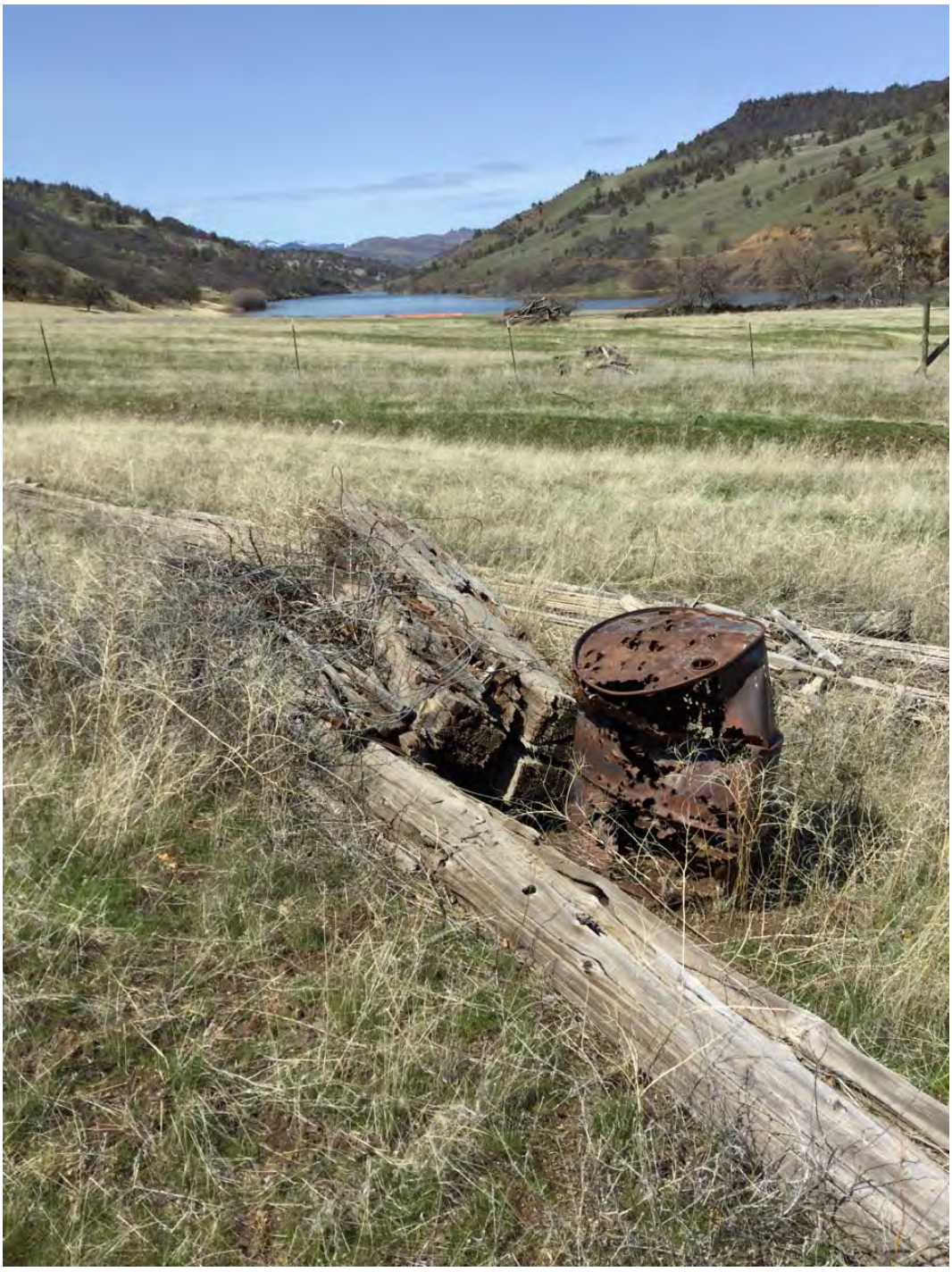
Taken by: *A. Vogt, R. Thompson* *Date taken:* *April 13, 2023* *Photo ID #: OID64_AID78*

Photograph 2: Distribution Easement

Taken by: K. Eley, K. Johnson *Date taken: April 12, 2023* *Photo ID #: OID40_AID41*

Photograph 3: Distribution and Transmission Easements

Taken by: K. Eley, K. Johnson *Date taken: April 13, 2023* *Photo ID #: OID52_AID63*



Photograph 4: Drum with Bullet Holes, Power Poles. Wood Beams

Taken by: K. Eley, K. Johnson Date taken: April 13, 2023 Photo ID #: OID52_AID69

Photograph 5: Drum with Bullet Holes in Top and Side

Taken by: *K. Eley, K. Johnson* *Date taken:* *April 13, 2023* *Photo ID #: OID55_AID62*

Photograph 6: Miscellaneous Drums

Taken by: K. Johnson, K. Eley, A. Vogt Date taken: April 19, 2023 Photo ID #: OID104_AID155

Photograph 7: Miscellaneous Cans and Wire

Taken by: *K. Johnson, K. Eley, A. Vogt* *Date taken:* *April 14, 2023* *Photo ID #: OID77_AID115*

Photograph 8: Sheet Metal, Metal Cans, Glass Bottles, and Household Debris

Taken by: K. Johnson *Date taken: April 18, 2023* *Photo ID #: OID87_AID135*

Photograph 9: Railroad Ties and Wood Debris

Taken by: *A. Voigt, R. Thompson* *Date taken:* *April 13, 2023* *Photo ID #: OID60_AID79*

Photograph 10: Pallets

Taken by: *K. Eley, K. Johnson* *Date taken:* *April 13, 2023* *Photo ID #: OID65_AID83*

Photograph 11: Wooden Fencing

Taken by: *K. Eley, K. Johnson* *Date taken:* *April 13, 2023* *Photo ID #: OID56_AID61*

Photograph 12: Power Poles

Taken by: K. Johnson, K. Eley *Date taken: April 13, 2023* *Photo ID #: OID58_AID76*

Photograph 13: Wire, Pipes, and Other Metal Debris

Taken by: K. Johnson, K. Eley, A. Vogt Date taken: April 14, 2023 Photo ID #: OID77_AID107

Photograph 14: Pipes and Other Metal Debris

Taken by: K. Johnson *Date taken: April 18, 2023* *Photo ID #: OID89_AID122*

Photograph 15: Concrete – Old Foundation

Taken by: K. Johnson, K. Eley, A. Vogt Date taken: April 14, 2023 Photo ID #: OID69_AID88

Photograph 16: Stressed Vegetation

Taken by: *A. Vogt, R Thompson* *Date taken:* *April 13, 2023* *Photo ID #: OID62_AID80*

Photograph 17: Inaccessible Steep Terrain

Taken by: *A. Vogt, R Thompson* *Date taken:* *April 13, 2023* *Photo ID #: IMG_4675*

Appendix G
Consolidated Comment Matrix

COMMENT MATRIX for the Stakeholder Review Drafts:
Lower Klamath Project California Site Investigation Report Supplement No. 1 (September 2023)
Lower Klamath Project Oregon Site Investigation Report Supplement No. 1 (December 2023)
FERC No. P-14803
March 2024

No.	Reviewer Initials*	Item Under Review	Section and Page No. / DWG No.	Comment	Response to Comment
California Department of Fish and Wildlife - Office of Spill Prevention and Response/California Department of Water Resources (Comments on the California Site Investigation Report Supplement No. 1)					
CA-1	KT	California SIR Supplement No. 1	Page 1-2, Section 1.3 Investigative Standard and Future Site Uses and Table 1-1	The California SIR1 indicates: "The exposure pathways were used to determine the screening levels and to evaluate the analytical results as described in Section 3 and implemented in Sections 5 and 6 of this California SIR1." CDFW-OSPR suggests that [the] PacifiCorp/Jacobs continue to monitor contaminant concentrations in surface water if PacifiCorp/Jacobs detects concentrations over the project action limit in ground water.	There were no locations where groundwater was encountered at the sites evaluated as part of the investigation in the California SIR Supplement No. 1. Because of this, no additional monitoring activities are necessary. No changes necessary.
CA-2	KT	California SIR Supplement No. 1	Page 2-2, Section 2.4 Sampling Collection and Appendix D Analytical Laboratory Results	Please clarify whether the data were analyzed using unfiltered or filtered samples. We recommended that PacifiCorp/Jacobs perform a risk assessment using unfiltered data (Huang 2022) [*sic*]. Filtering is not considered appropriate for water samples to be analyzed for PCBs because contaminants that sorb to particulates are removed when filtered.	No water samples were collected from the Iron Gate Substation or the Copco No. 1 Switchyard. No changes necessary.
CA-3	KT	California SIR Supplement No. 1	Appendix G, Page 16, Photograph 16; Page 2-4, Photograph 16	The photograph labeled as "stressed vegetation" in retained easement areas was taken on April 13, 2023. It looks like a viable ecological habitat. Jacobs Engineering Group Inc. should have another site visit to determine what kind of habitat it is. Ecological risk assessment should be performed. Ecological risk assessment should determine if the stress results from drought or environmental contaminants.	Photograph 16 shows a small meadow, potentially even a seasonal wetland or swale, surrounded by oak woodland. Based on environmental experience of the team leading this investigation, the location of the vegetation in a low-lying area when combined with the lack of soil staining, odors, or dumping of debris in the area, indicates that the stressed vegetation is not due to contamination. No further investigation is warranted at this time. No changes necessary.

* KT = Kevin Takei/California Department of Fish and Wildlife

COMMENT MATRIX for the Stakeholder Review Drafts:
Lower Klamath Project California Site Investigation Report Supplement No. 1 (September 2023)
Lower Klamath Project Oregon Site Investigation Report Supplement No. 1 (December 2023)
FERC No. P-14803
March 2024

No.	Reviewer Initials*	Item Under Review	Section and Page No. / DWG No.	Comment	Response to Comment
Klamath River Renewal Corporation (Comments on the California and Oregon Site Investigation Report Supplements No. 1)					
KRRC-1	LL	General comment on both reports		KRRC adopts any comments and caveats expressed by Oregon or California.	Acknowledged. No changes necessary.
KRRC-2	LL	General comment on both reports		KRRC is not at this time offering an explicit or implicit approval of any of the closure recommendations referenced in the supplement.	Acknowledged. No changes necessary.
KRRC-3		Oregon SIR Supplement No. 1		The Supplement notes in Sections 3.2.1 and 3.2.12 of "Appendix A Retained Easement Environmental Review" that the eastern retained easement areas were not surveyed as they were underwater, but does not seem to note plans to survey those areas when no longer inundated. Please add an acknowledgement that the balance of the easement area will be addressed when accessible.	Accessible areas of the retained easements were surveyed during the site reconnaissance. These retained easement areas are representative of the operating areas available to PacifiCorp over the operational life of the hydroelectric facilities. No additional survey is planned for areas that were below reservoirs. Should undiscovered impacted soil or groundwater be identified through the removal or restoration work, it will be handled in accordance with Section 2.5, Undiscovered Impacted Soil and Groundwater (RECs 5, 9, and 17) of the *Oregon Site Investigation Work Plan Supplement No. 1* (Jacobs 2023), which has established a process whereby impacted soil or groundwater can be addressed if encountered. No changes necessary.
KRRC-4		Oregon SIR Supplement No. 1		Section 5 of the Supplement states that since no other PECs were identified in the Environmental Review (Appendix A), the JCB retained easement areas are recommended for closure. Please clarify that this does not include the areas not yet surveyed.	No additional survey of the retained easements areas is planned, as noted in the response to KRRC-3.
KRRC-5		California SIR Supplement No. 1		Same comments as above regarding California easement areas inaccessible at the time of survey.	Please see response to KRRC-3.
KRRC-6		California SIR Supplement No. 1		We suggest that you circulate the updated 2.3 when it's ready rather than waiting to circulate it with the next draft of the supplement. Additional clarification emailed by Lloyd Lowy (KRRC) to Demian Ebert (PacifiCorp) on February 5, 2024: "It's a reference to the bracketed note at the end of Section 2.3 of the draft saying that the section will be updated. I was merely suggesting that, in the interest of time, you circulate the update when it's ready rather than holding it until when you circulate the next version of the entire supplement."	The bracketed comment at the end of Section 2.3 that states *[Note to reviewers that this paragraph will be revised once investigation-derived w ate disposal is done.]*, has been removed. The text in Section 2.3 has been modified as follows: "Wastewater samples were collected from each site for waste profiling purposes. Because the analytical results for the wastewater fit the existing wastewater profile generated when implementing the California SIWP (Jacobs 2021), the wastewater was disposed of offsite with other contaminated soil."

* LL = Lloyd Lowy

COMMENT MATRIX for the Stakeholder Review Drafts:
Lower Klamath Project California Site Investigation Report Supplement No. 1 (September 2023)
Lower Klamath Project Oregon Site Investigation Report Supplement No. 1 (December 2023)
FERC No. P-14803
March 2024

No.	Reviewer Initials*	Item Under Review	Section and Page No. / DWG No.	Comment	Response to Comment
Oregon Department of Justice (Comment on the Oregon Site Investigation Report Supplement No. 1)					
OR-1	CM	General Comment		Oregon endorses KRRC's concerns about the Oregon work.	Acknowledged. No changes necessary.
OR-2	CM	General Comment		Thank you for providing this for our comment (and as you know nothing in this comment process is approval in terms of sale obligations of PacifiCorp). Two errors, one of which is likely a repeated typo, but the other is a recurring and real issue – and a failure in your response to our prior comments on the subject.	Acknowledged. Both errors have been corrected as described in the response to OR-2a.
OR-2a		Oregon SIR Supplement No. 1	Pages 1-1 and 1-2	You state that the Oregon SIWP Supplement was approved by the KRRC (Lowy, pers. comm. 2022) and the State of Oregon (Meyers, pers. comm. 2022). – There is no Meyers in the Oregon loop.	PacifiCorp agrees with this comment and changed "Meyers" to "Matthews" in two places.
OR-2b		Oregon SIR Supplement No. 1	Table 1-1 Site Future Uses and Exposure Pathways (page 1-3); Section 4.2 Fire Ring Analytical Results (page 4-2)	Table 1-1 REC 16 shows the future use as industrial and the exposure pathway as Industrial/ecological/leaching to groundwater. However, easements without access controls will be used primarily for recreation. Oregon commented on this in the review of SIWP, and PacifiCorp response was they would make the change. That change was captured in Table 1-1 in the Oregon Site Investigation Work Plan Supplement No. 1 January 2023 showing the future use as recreation and the exposure pathway as Residential/leaching to groundwater. It is not clear in the discussion of the results in Section 4 [see excerpt below] if this inconsistency between the SIWP and this report affected the choice of screening level or the conclusions. **4.2 Fire Ring Analytical Results** "The samples were analyzed for the same set of analytes as were analyzed at the fire ring in the J.C. Boyle Dispersed Recreation Area – 2 (Jacobs 2023e): title 22 metals, mercury, volatile organic compounds, semivolatile organic compounds, and dioxins and furans. The analytical results were compared to the site-specific screening levels established in the Oregon SIWP. Cobalt exceeded human health and ecological screening levels (ESLs) at all three soil borings. ESLs were exceeded for copper and dioxins and furans at all three soil borings, and for zinc at JBRA-01 and for selenium at JBRA-03. Naphthalene exceeded the leaching to groundwater screening level at the surface at JBRA-01 (Table 4-2, Figure 4-1)." Please provide sufficient documentation to confirm that the appropriate levels were actually used, or correct the report after doing so – and provide Jacobs certification for this correction or update.	REC 16 Retained Easement Areas in Table 1-1 has been corrected to a future use of "Passive recreational/natural habitat" and an exposure pathway of "Residential/ecological/leaching to groundwater." The corresponding edit to Table 1-1 is made in the California SIR Supplement No. 1. This edit to Table 1-1 does not affect the future use and exposure pathway analysis because the passive recreation/natural habitat and residential human health, leaching to groundwater, and ecological exposure pathways were used in the *Draft Oregon Site Investigation Report Supplement No. 1* evaluation and risk assessment of the Fire Ring. The text in Section 4.2 has been modified to explicitly state the exposure pathways used, as follows: "The analytical results were compared to the site-specific screening levels established in the Oregon SIWP <u>for residential human health, leaching to groundwater, and ecological exposure pathways</u>." Because the correct future uses and exposure pathways were used in the analysis, the results and conclusions in Section 4 are all correct and no further changes are necessary.

* CM = Chris Matthews

REFERENCES

Huang, C. 2021. Memorandum to: Anthony Meyers, Project Manager, Department of Water Resources. Re: Lower Klamath Hydroelectric Project, Draft Site Investigation Work Plan Supplement No.1. September 6, 2021. Sacramento, CA.

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Attachment B

Lower Klamath Project (FERC No. P-14803)

Oregon Site Investigation Report Supplement No. 1

Final

March 2024

Lower Klamath Project
(FERC No. P-14803)

Project No:	D3514100
Document Title:	Oregon Site Investigation Report Supplement No. 1
Document No.:	231117173359_648aa743
Revision:	Final
Date:	March 2024
Client Name:	PacifiCorp, Demian Ebert, Klamath Program Manager, 503-813-6625
Project Manager:	Emilio Candanoza, Jacobs, 541-768-3509

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Acronyms and Abbreviations

2,3,7,8-TCDD	2,3,7,8-Tetrachlorodibenzo-P-dioxin
AECOM	AECOM Technical Services, Inc.
Agreement	Property Transfer Agreement entered into by PacifiCorp, the Klamath River Renewal Corporation, and the states of Oregon and California
AUF	area use factor
bgs	below ground surface
BTV	background threshold value
California SIR1	*California Site Investigation Report Supplement No. 1*
CAS	Chemical Abstract Service
COI	contaminant(s) of interest
COPC	constituent(s) of potential concern
DXN	dioxin
EcoPRG	ecological preliminary remedial goal
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
ESA	environmental site assessment
ESL	ecological screening level
FERC	Federal Energy Regulatory Commission
GPS	Global Positioning System
HQ	hazard quotient
Jacobs	Jacobs Engineering Group Inc.
KRRC	Klamath River Renewal Corporation
MDC	maximum detected concentration
mg/kg	milligram(s) per kilogram(s)
ODEQ	Oregon Department of Environmental Quality
Oregon SIR	*Oregon Site Investigation Report*
Oregon SIR1	*Oregon Site Investigation Report Supplement No. 1*
Oregon SIWP	*Oregon Site Investigation Work Plan*
Oregon SIWP Supplement	*Oregon Site Investigation Work Plan Supplement No. 1*
PCB	polychlorinated biphenyl
PEC	pre-existing environmental condition
Project	Lower Klamath Project

RBC	risk-based concentration
REC	recognized environmental condition
SL	screening level
TEQ	toxic equivalent
UCL	upper confidence limit

1. Introduction

PacifiCorp retained Jacobs Engineering Group Inc. (Jacobs) to prepare this *Oregon Site Investigation Report Supplement No. 1* (Oregon SIR1) for the Lower Klamath Project (Project). The purpose of this Oregon SIR1 is to document environmental investigations performed at the J.C. Boyle Development retained easement areas (Figure 1-1). The investigations were performed in accordance with the *Oregon Site Investigation Work Plan Supplement No. 1* (Oregon SIWP Supplement) (Jacobs 2023a) and supplement the investigation results documented in the *Oregon Site Investigation Report* (Oregon SIR) (Jacobs 2023b).

Condition 8 (High-voltage Switchyards) and Condition 16 (Retained Easement Areas) were identified as pre-existing environmental conditions (PECs) in Exhibit C of the Property Transfer Agreement (Agreement) between PacifiCorp, the Klamath River Renewal Corporation (KRRC), and the states of Oregon and California. The desktop environmental review and reconnaissance-level field survey of the retained easement areas (Condition 16) as well as the analytical results from soil sampling and risk assessment at a fire ring found within the retained easement areas (Figure 1-2) are documented in this Oregon SIR1. Field activities at the J.C. Boyle Switchyard (Figure 1-1) will be performed after electrical power has been shut down at the switchyard in 2024 and the results presented in a future site investigation report supplement.

The J.C. Boyle Dispersed Recreation Area-2 located north of the J.C. Boyle Reservoir (Figure 1-1) was investigated in accordance with the *Oregon Site Investigation Work Plan* (Oregon SIWP) (Jacobs 2021) and was determined to require cleanup work per the Oregon SIR (Jacobs 2023b). The cleanup work for the J.C. Boyle Dispersed Recreation Area-2 is being addressed through the *Soil Removal Action Plan for Oregon* (Jacobs 2023e).

While the Agreement and specifically Exhibit C to the Agreement discuss the resolution of PECs, the Oregon SIWP (Jacobs 2021) and the Oregon SIWP Supplement (Jacobs 2023a) refer to the Exhibit C items generically as recognized environmental conditions (RECs). Not all PECs in Exhibit C have been formally identified as a REC in a Phase I environmental site assessment (ESA). Consequently, the term REC is used interchangeably with PEC and site throughout this document.

The Oregon SIWP Supplement was approved by the KRRC (Lowy, pers. comm. 2022) and the State of Oregon (Matthews, pers. comm. 2022). Separate *California Site Investigation Work Plan Supplement No. 1* (Jacobs 2023c) and *California Site Investigation Report Supplement No. 1* (Jacobs 2023d) submittals were developed for the California switchyards and retained easements.

1.1 Background

The Oregon SIWP and Oregon SIWP Supplement provide detailed backgrounds of the J.C. Boyle Development, the list of the Exhibit C PECs, and a discussion of the surrounding lands, local geology, and historical practices. This information is incorporated into the Oregon SIR1 by reference. Also pertinent to this Oregon SIR1 are the two Phase I ESAs conducted for the Oregon and California hydroelectric developments (AECOM 2018, 2020).

Of importance to note regarding each site and the development of both SIWPs are the following:

- There were no records of spills or releases at most of the sites, no site investigations had been conducted, and therefore actual site conditions at each site were not known.
- Sampling plans for each site were developed consistent with industry standards and were based on assumed conditions (historical site activities and likely contaminants) at each site.
- Site-specific sampling plans were developed to determine if the contaminants of interest (COIs) summarized in Section 1.3 (Investigative Standard and Future Site Uses) are present at concentrations that exceeded screening levels.
- The COIs for each site were selected using the most conservative (i.e., lowest) screening levels for residential, ecological, and leaching to groundwater exposure scenarios and on the understood future use for each site, as agreed upon by the KRRC (Lowy, pers. comm. 2022) and the State of Oregon (Matthews, pers. comm. 2022).

The J.C. Boyle Development is used to generate and distribute electricity. Hazardous materials that have been used onsite include diesel fuel, leaded and unleaded gasoline, non-polychlorinated biphenyls (non-PCBs), and governor, transformer, and motor oils. Battery banks and oils are stored within secondary containment systems. As noted in the Phase I ESA conducted by AECOM, the facilities appeared to be in good operating condition, with proper housekeeping and hazardous materials management practices (AECOM 2018).

1.2 Objectives

The primary objective of this Oregon SIR1 is to document the environmental review, field activities, and analytical results for the J.C. Boyle retained easement areas. As defined in the Oregon SIWP Supplement (Jacobs 2023a), retained easements are the right-of-way on historically PacifiCorp-owned property[1] in Oregon containing PacifiCorp electrical transmission and distribution system, other ancillary infrastructure, and related access roads. The retained easements are used for accessing, maintaining, operating, repairing, replacing, enlarging, reconstructing, or removing PacifiCorp's electrical transmission and distribution facilities.

Recommended next steps are provided based on the environmental review, analytical results, and risk evaluations. Considered next steps include a request for site closure, collection of additional environmental samples, or site remediation (Figure 1-3). If risk evaluation of the analytical results indicates acceptable risk, PacifiCorp will request closure of the site. As used in this report, site closure refers to a closure action agreed upon by PacifiCorp, KRRC, and Oregon and documented in a Memorandum of Resolution. If risk evaluation of analytical results indicates the risk is unacceptable, PacifiCorp will either collect additional samples according to the sampling plan established for the site or develop a remediation plan based on the field and analytical data already collected.

[1] On December 1, 2022, PacifiCorp transferred ownership of this property to the KRRC per the terms of the Agreement.

1.3 Investigative Standard and Future Site Uses

The field assessment and data evaluations for this Oregon SIR1 were performed in accordance with the Investigative Standard, as defined in Section 1.5 of the Oregon SIWP (Jacobs 2021). The Oregon SIWP Supplement addressed multiple sites and identified intended future uses and exposure pathways at the Exhibit C sites that had not been addressed in the Oregon SIWP (Jacobs 2021). The exposure pathways were used to determine appropriate screening levels per the criteria developed in Section 3.3 of the Oregon SIWP (Jacobs 2021) and as revised in Section 3.1. The intended future site uses and exposure pathways for each site (Table 1-1) were identified in the Oregon SIWP Supplement and approved by KRRC (Lowy, pers. comm. 2022) and the State of Oregon (Matthews, pers. comm. 2022). The exposure pathways were used to determine the screening levels and to evaluate the analytical results as described in Section 3 of the Oregon SIR (Jacobs 2023b) and implemented in Section 4 of this Oregon SIR1.

The COIs for the high-voltage switchyards (and substations) are PCBs and transformer oil based on historical practices; these will be investigated in a future SIR supplement. For the remaining sites, the COIs will be based on available information and the type of site identified.

The environmental review, field observations, analytical results from the site investigation, and risk assessment at the J.C. Boyle retained easement areas were evaluated to determine if the site can be closed or if further assessment, remediation, risk assessment, or a combination are required.

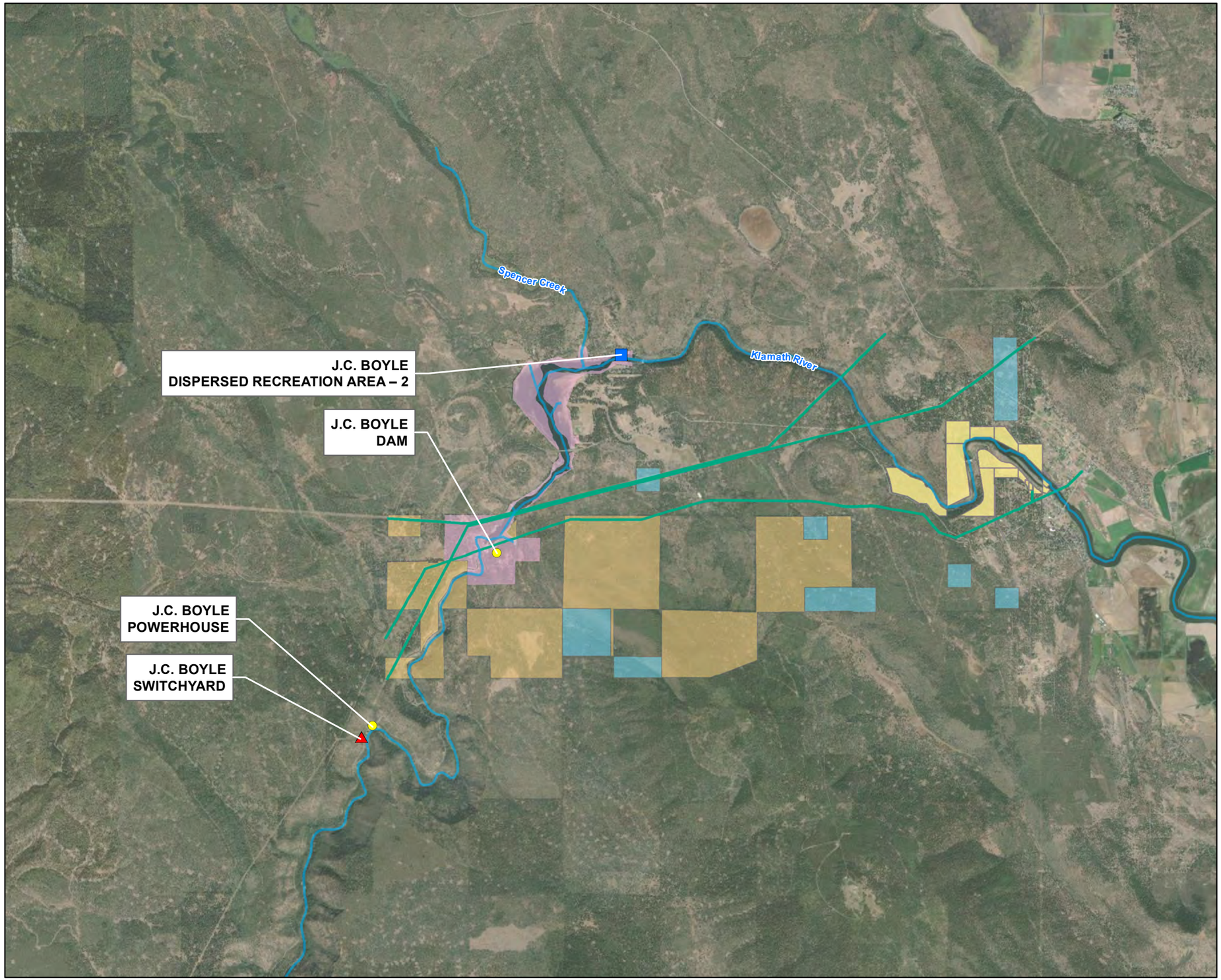
Table 1-1. Site Future Uses and Exposure Pathways

Exhibit C REC No.	Site/REC	Site Future Use	Exposure Pathways
5	Undiscovered Impacted Soil and Groundwater at the Four Powerhouses	Active recreation	Residential/leaching to groundwater
6	Underground Storage Tanks	Active recreation	Residential/leaching to groundwater
8	High-voltage switchyards (and substations)	Active recreation	Residential/leaching to groundwater
9	Undiscovered Impacted Soil and Groundwater at the Four Dam Developments	Active recreation	Residential/leaching to groundwater
15	Inaccessible Areas	Passive recreation/natural habitat	Residential/ecological/leaching to groundwater
16	Retained Easement Areas	Passive recreation/natural habitat	Residential/ecological/leaching to groundwater
17	Undiscovered Impacted Soil and Groundwater Outside the Removal Work Zone	Passive recreation/natural habitat	Residential/ecological/leaching to groundwater

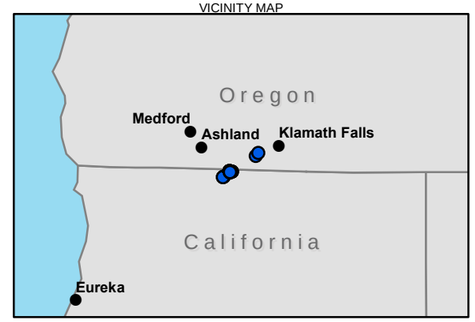
1.4 Report Organization

This Oregon SIR1 contains the following sections and appendixes:

- **Section 1 – Introduction**: Describes the Oregon SIR1 purpose, provides background information on site evolution, objectives of the Oregon SIR1, Investigative Standards utilized, future site uses, applicable exposure pathways, and COIs.
- **Section 2 – Field Activities**: Provides a general overview of the field activities performed when implementing the Oregon SIWP Supplement at the retained easements.
- **Section 3 – Environmental Review of J.C. Boyle Retained Easement Areas**: Summarizes the environmental desktop review and site reconnaissance of the J.C. Boyle retained easements used for accessing, maintaining, operating, repairing, replacing, enlarging, reconstructing, or removing PacifiCorp's electrical transmission and distribution facilities.
- **Section 4 – Investigation of Fire Ring Discovered within J.C. Boyle Retained Easement Areas**: Summarizes the field activities, analytical laboratory results, and risk assessments at the fire ring, and conclusions derived from the fire ring investigation.
- **Section 5 – Summary of Recommended Action**: Summarizes the recommendation for further action at the J.C. Boyle retained easements.
- **Section 6 – References**: Provides a bibliographic listing of documents cited in this Oregon SIR1.
- **Appendix A – Retained Easement Environmental Review**: Presents the results of the environmental desktop review and reconnaissance surveys within the retained easements owned by PacifiCorp.
- **Appendix B – Boring Logs**: Contains coordinates for borehole locations based on Global Positioning System (GPS) surveys and site borehole logs.
- **Appendix C – Analytical Laboratory Results**: Provides the analytical laboratory results for samples collected from each of the sample locations and highlights results that exceeded a screening level.
- **Appendix D – Data Quality Evaluation Report**: Assesses the data quality of the analytical results for environmental samples collected.
- **Appendix E – Human Health and Leaching to Groundwater Risk Evaluation Tables**: Provides the supporting tables of calculations for the human health risk evaluations and the leaching to groundwater site evaluation.
- **Appendix F – Ecological Risk Evaluation Table**: Provides the supporting calculations for the site ecological risk evaluation.
- **Appendix G – Consolidated Comment Matrix**: Contains consolidated review comments and responses from KRRC and the State of Oregon related to this Oregon SIR1.



VICINITY MAP



LEGEND

- Dam Infrastructure to be Removed
- Recognized Environmental Condition (REC)
- Previously Assessed REC (Jacobs 2021a)
- PacifiCorp Ownership
- KRRC Ownership
- BLM
- USFS
- STATE
- County Boundary
- Retained Easement (Transmission Line on PacifiCorp Property)
- River/Creek

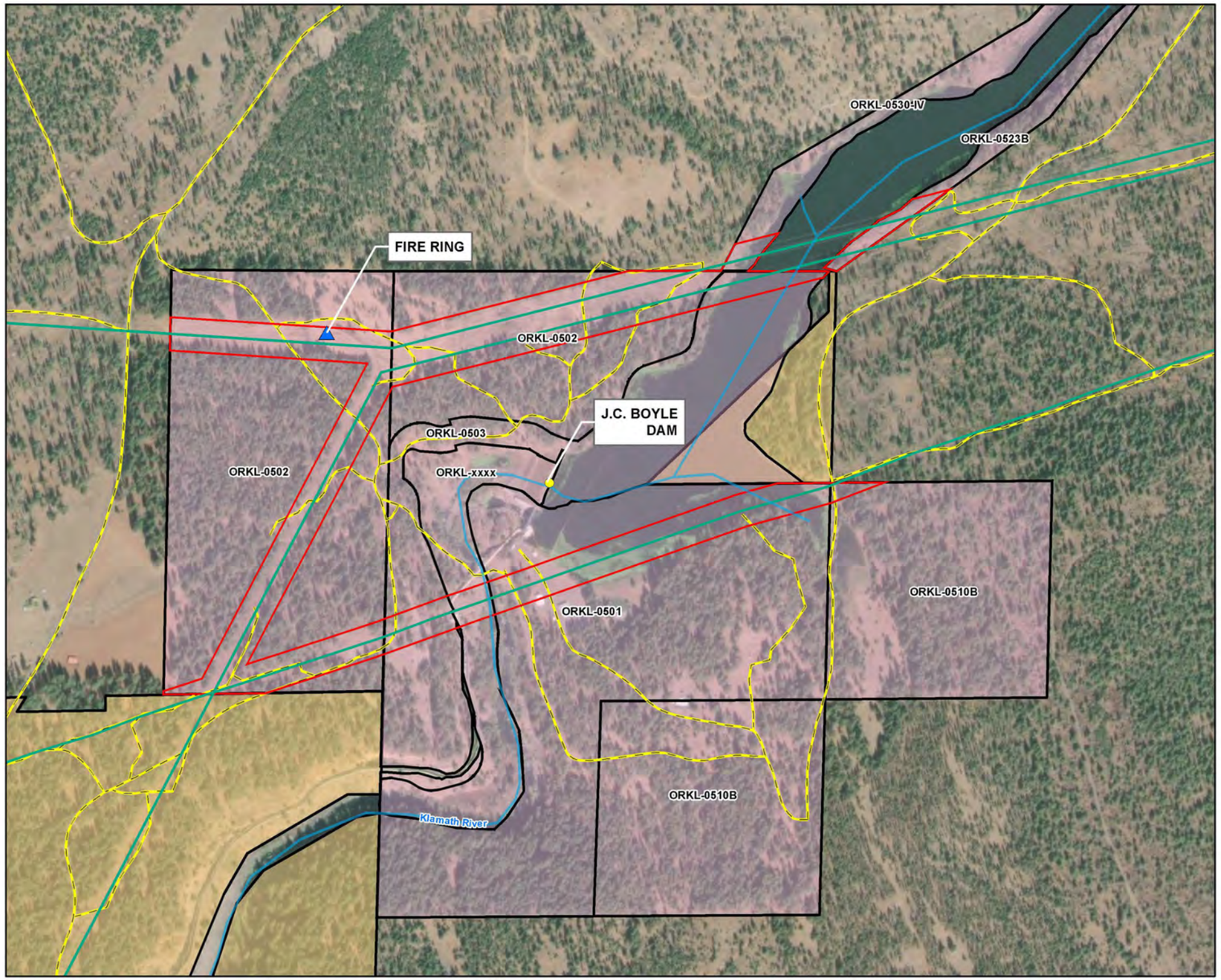
N

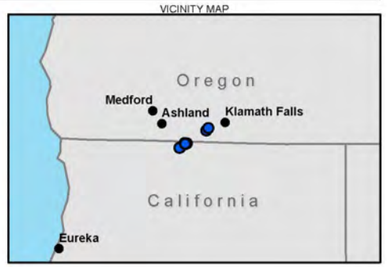
0 0.5 1
Miles

FIGURE 1-1
Recognized Environmental Conditions
Oregon Site Investigation Report Supplement No. 1
Lower Klamath Project

\\DC1VS01\GISPROJ\P\PACIFICORP\KLAMATH_DAM_REMOVAL_REMEDIATION\MAPFILES\WORKING\2023\JC_BOYLESITEINVESTIGATION\FIG1-1_SITEINVESTIGATION_JC_BOYLE.MXD ED035443 3/27/2024 1:51:57 PM

Jacobs





LEGEND
- Dam Infrastructure to be Removed
- Observed Potential Environmental Feature
- Parcel B Lands
- KRRC Ownership
- BLM
- Retained Easements (~ 52 Acres, 10,200 Linear Ft)
- County Boundary
- Transmission Line
- Access Roads
- River/Creek

N

0 300 600
Feet

\\DC1VS01\GISPROJ\PACIFICORP\KLAMATH_DAM_REMOVAL_REMEDIATION\MAPFILES\WORKING\2023\JC_BOYLESITEINVESTIGATION\FIG1-2_JC_BOYLE_RETAINEDEASEMENTS.MXD ED035443 12/20/2023 1:40:23 PM

FIGURE 1-2
J.C. Boyle Retained Easements
Oregon Site Investigation Report Supplement No. 1
Lower Klamath Project

Jacobs

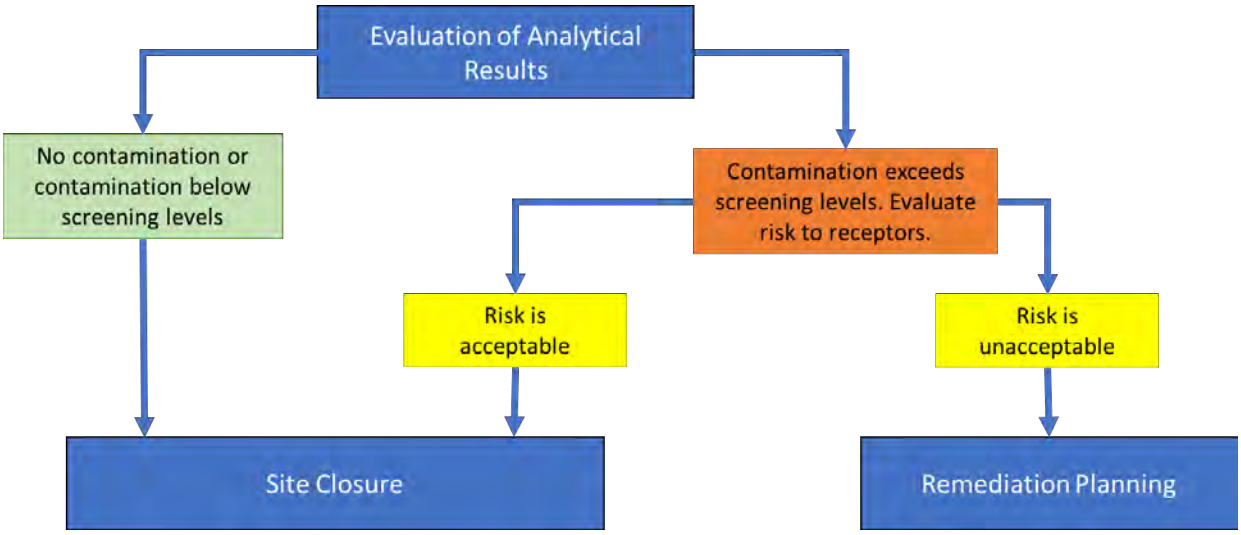


Figure 1-3. Flowchart of Possible Next Steps

2. Field Activities

The Oregon SIWP Supplement was designed to be implemented under multiple mobilizations and when required to address the discovery of an environmental concern within the sites identified in text (Jacobs 2023a). The first mobilization for investigation of the retained easements was performed in April 2023. Field activities were documented daily in field logbooks and on tablets. Work specific to each site was implemented as outlined in the Oregon SIWP Supplement.

2.1 Retained Easement Investigation Activities

On April 19, 2023, qualified staff walked accessible portions of the retained easements to assess the potential for PECs. During the site reconnaissance, field teams used ArcGIS (ESRI 2023) field maps loaded with the retained easement geospatial areas to record locations and photo points of any items of interest. The environmental review is summarized in Section 3 and more details are provided in Appendix A (*Retained Easement Environmental Review*). As described in Section 3, a fire ring was found in the J.C. Boyle retained easements and PacifiCorp determined that a soil investigation was required.

2.2 J.C. Boyle Fire Ring Soil Investigation Activities

Soil investigation activities at a fire ring within the J.C. Boyle retained easements primarily included the following activities performed on June 22, 2023:

- The visual extent of the fire ring was marked and the area was surveyed for the presence of subsurface utilities by a third-party utility locator service.
- Three sample locations were marked based on visual observations of areas most impacted by the fire ring and in locations likely to be impacted by drainage to and from the fire ring.
- A stainless-steel hand auger was used to advance each soil boring for the collection of soil samples.
- Soil samples were collected for borehole logging purposes and for laboratory analysis. The samples were collected from various depths down to 6 feet below ground surface (bgs). Collection occurred as described in Appendix A (*Sampling and Analysis Plan)* of the Oregon SIWP. The samples were analyzed for the same set of analytes as were analyzed at the fire ring at the J.C. Boyle Dispersed Recreation Area – 2 (Jacobs 2023e): title 22 metals, mercury, volatile organic compounds, semivolatile organic compounds, and dioxins and furans.
- Soil sample locations were surveyed with a hand-held GPS unit. The final survey coordinates and the boring logs for each soil boring are presented in Appendix B.
- Decontamination water samples were collected for waste characterization and profiling purposes in advance of offsite disposal in accordance with applicable state and federal requirements.
- Upon completion of sampling activities, each soil boring was abandoned using leftover soil collected during sampling activities and surrounding soil and gravel.

Details of the site-specific investigation at the fire ring are summarized in Section 4.

2.3 Waste Management

Wastes generated from soil sampling activities included general refuse and wastewater from decontamination of equipment. Waste soil was not generated when sampling the fire ring. General refuse was disposed of in trash bins used by PacifiCorp. Wastewater was segregated and containerized in labeled, United Nations-approved 5-gallon buckets and staged within a secured PacifiCorp facility.

Wastewater samples were collected for waste profiling purposes. Because the analytical results for the wastewater fit the existing wastewater profile generated when implementing the Oregon SIWP (Jacobs 2021), the wastewater was disposed of offsite with other contaminated soil.

2.4 Sample Collection and Management

Soil samples were collected in glass jars provided by the analytical laboratory and in accordance with the *Sampling and Analysis Plan* (Appendix A of the Oregon SIWP). The sample jars were labeled, placed in resealable plastic bags, and stored in an insulated cooler that was chilled to maintain a shipping temperature of about 4 degrees Celsius. The sample cooler contained a temperature blank used for recording the temperature of the samples in the cooler upon arrival at the laboratory.

A chain-of-custody form was completed in the field and accompanied each of the samples during transport to the analytical laboratory, Eurofins Calscience in Tustin, California. Eurofins distributed some samples to other laboratories as required to complete the analysis. Laboratory analyses were performed in accordance with current U.S. Environmental Protection Agency (EPA) procedures and by laboratories certified by the Oregon Environmental Laboratory Accreditation Program. Full analytical laboratory reports of all samples collected are provided in Appendix C.

3. Environmental Review of J.C. Boyle Retained Easement Areas

This section summarizes the environmental review conducted by Jacobs of the retained easements at J.C. Boyle. The environmental review included a desktop review of reasonably obtainable historical documents for the retained easement areas and documents the site reconnaissance performed at accessible parts of the retained easement areas. The full report of the retained easement environmental review is provided in Appendix A.

3.1 Background

PacifiCorp retains easements for the existing transmission and distribution system and all other ancillary infrastructure and related access roads on KRRC-owned property. Existing easements on privately or federally owned property are not included in the Retained Easement PEC.

The retained easements are used for accessing, maintaining, operating, repairing, replacing, enlarging, reconstructing, or removing PacifiCorp's electrical transmission and distribution facilities. Included in the retained easements are related electrical transmission facilities, such as towers, poles, pads, anchors, supports, transformers, switchyards, vaults, substations, communications facilities, fiber optic or other communications equipment, and any other improvements or facilities associated with the management of these facilities. The retained easement area is the current physical location of the transmission facilities along with an additional width of 100 feet, as measured on the surface of the property and from each side of the transmission line or distribution facility.

3.2 Environmental Desktop Review

The scope of the environmental desktop review of the retained easements was limited to a review of previous Phase I ESAs, the Environmental Database Report, and other online database searches of regulatory agency files from the Oregon Department of Environmental Quality (ODEQ), and EPA's Oregon portal website (EPA 2023). Additional information regarding locations of oil and gas wells or well fields was accessed from the Oregon Department of Geology and Mineral Industries public map viewer website (Oregon DOGAMI 2023), and locations of underground pipelines were accessed from the U.S. Department of Transportation National Pipeline Mapping System (NPMS 2023). Based on these reviews, no new PECs were identified at the retained easements (Appendix A).

3.3 Reconnaissance Survey

On April 19 of 2023, a team of two qualified Jacobs staff walked accessible portions of the retained easements. The following were observed at various locations during the site reconnaissance surveys conducted at the retained easements: a rusted 55-gallon drum with bullet holes, household debris, an area of stressed vegetation, and a fire ring. Photographs from the site reconnaissance are in Appendix A. The 55-gallon drum, debris, and stressed vegetation were limited in size and quantity of material, and no indications of contamination or release were observed. Only the fire ring is considered a PEC.

The fire ring was discovered approximately 1,700 feet northwest of the J.C. Boyle Dam and approximately 250 feet east of John Boyle Powerhouse Road (Figure 1-1). Investigation of the fire ring is described in Section 4.

4. Investigation of Fire Ring Discovered within J.C. Boyle Retained Easement Areas

This section describes the soil investigation at the fire ring discovered within the J.C. Boyle retained easement areas, results of the risk assessment, and conclusions derived from the fire ring investigation.

4.1 Field Activities

On June 22, 2023, the visual extent of the J.C. Boyle fire ring was approximately 15 feet east to west and 10 feet north to south as shown by the white circle in Photograph 4-1. The area was surveyed for the presence of subsurface utilities by a third-party utility locator service and an anomaly was observed near the center of the fire ring, as shown by the pink rectangle in Photograph 4-1. One soil boring was installed in the center of the fire ring proximate to the anomaly, a second boring was placed at the high point of the impacted area northeast of the fire ring, and a third boring installed at the low point of the impacted area south of the fire ring (Table 4-1, Figure 4-1, white rings in Photograph 4-1). The soil borings were advanced by hand augering to depths of up to 6 feet bgs and samples were collected from 6-inch intervals at multiple depths to the bottom of the borings (Table 4-1; Section 2).

Photograph 4-1. J.C. Boyle Fire Ring Looking North-Northeast (photo taken on June 22, 2023)
Source: Jacobs 2023a

Table 4-1. J.C. Boyle Fire Ring Sample Location Summary

Location ID	Sample Intervals (feet bgs)	Depth (feet)	Comments
JBRA-01	0-0.5, 1.5-2.0, 3.0-3.5	4.0	Placed in the northeast corner and high point of the fire ring
JBRA-02	0-0.5, 1.5-2.0, 3.5-4.0, 5.5-6.0	6.0	Placed near the center of the fire ring and within the area marked with the underground anomaly
JBRA-03	0-0.5, 1.5-2.0	2.0	Placed near the south extent and low point of the fire ring

Note:
bgs = below ground surface

4.2 Fire Ring Analytical Results

The samples were analyzed for the same set of analytes as were analyzed at the fire ring in the J.C. Boyle Dispersed Recreation Area – 2 (Jacobs 2023e): title 22 metals, mercury, volatile organic compounds, semivolatile organic compounds, and dioxins and furans. The analytical

results were compared to the site-specific screening levels established in the Oregon SIWP for residential human health, leaching to groundwater and ecological exposure pathways. Cobalt exceeded human health and ecological screening levels (ESLs) at all three soil borings. ESLs were exceeded for copper and dioxins and furans at all three soil borings, and for zinc at JBRA-01 and for selenium at JBRA-03. Naphthalene exceeded the leaching to groundwater screening level at the surface at JBRA-01 (Table 4-2, Figure 4-1).

Table 4-2. J.C. Boyle Fire Ring Boreholes with Compounds that Exceed Screening Levels

Borehole	Human Health SLs	Leaching to Groundwater SLs	Ecological SLs
JBRA-01	Cobalt, Dioxins and Furans	Naphthalene, Dioxins and Furans	Cobalt, Copper, Zinc, Dioxins and Furans
JBRA-02	Cobalt	<SLs	Cobalt, Copper, Dioxins and Furans
JBRA-03	Cobalt	<SLs	Cobalt, Copper, Selenium, Dioxins and Furans

Notes:
SLs = screening levels
<SLs = does not exceed screening levels

The following sections describe the evaluation of risk at the fire ring in J.C. Boyle retained easement areas using the risk assessment approach described in the Oregon SIR (Jacobs 2023b) to evaluate human health risk, leaching to groundwater risk, and ecological risk from constituents of potential concern (COPCs) in soil. Groundwater was not encountered at the fire ring.

4.3 Site-Specific Human Health Risk Assessment

The human health risk assessment was conducted in accordance with the approach described in the Oregon SIR (Jacobs 2023b). Before conducting the risk assessment, the analytical results from sampling (Appendix C) were validated in a data quality evaluation report (Appendix D).

FIGURE 4-1
Fire Ring Sample Locations
Oregon Site Investigation Report Supplement No. 1
Lower Klamath Project

Jacobs

4.3.1 Data Evaluation

The human health COPCs in soil at the site are 2,3,7,8-Tetrachlorodibenzo-P-dioxin (2,3,7,8-TCDD) toxic equivalent (TEQ) and cobalt (Appendix E).

4.3.2 Exposure Assessment

Default exposure parameters (ODEQ 2017) were used to develop the risk-based concentrations (RBCs) in soil.

4.3.3 Toxicity Evaluation

Except for the surrogate toxicity values used for dioxins, no COPCs requiring surrogate toxicity values were identified.

Concentrations of dioxins and dioxin-like compounds were evaluated using dioxin toxicity equivalency factors (TEFs) to calculate a 2,3,7,8-TCDD TEQ concentration. The RBCs for 2,3,7,8-TCDD were used for the calculated 2,3,7,8-TCDD TEQ concentrations.

4.3.4 Human Health Risk Assessment Results

Concentrations of cobalt in soil are considered to be naturally occurring (Table 4-3). There are no ODEQ RBCs for cobalt (ODEQ 2018). Therefore, risk from exposure to cobalt in soil is not considered in this analysis.

The exposure point concentration (EPC) of 2,3,7,8-TCDD TEQ in surface soil (4.6E-06 milligrams per kilogram [mg/kg]) and mixed-zone soil (3.3E-06 mg/kg) are less than the ODEQ RBCs for the residential and construction worker exposure scenarios (4.7E-06 mg/kg and 1.7E-04 mg/kg, respectively) (Table 4-3). Therefore, risk from exposure to 2,3,7,8-TCDD TEQ in surface soil does not exceed target risk criteria.

4.3.5 Uncertainty Discussion

In general, the numbers and locations of soil samples are considered adequate for risk assessment purposes, and the types of COPCs identified are considered representative of potential releases within the site. Because samples were collected at suspected release location, the exposure area data are likely biased high and the risks potentially overestimated.

4.3.6 Human Health Risk Assessment Conclusions

Cobalt in soil is considered to be naturally occurring. The EPCs for 2,3,7,8-TCDD TEQ in soil are less than the ODEQ RBCs. Therefore, target risk criteria are not exceeded.

4.4 Leaching to Groundwater Evaluation

The soil leaching COPCs at the site are 2,3,7,8-TCDD TEQ and naphthalene (Table 4-4, Appendix E). Groundwater was not encountered during the site investigation. The Klamath River is located

approximately 1,300 feet southeast of the site and has a water surface elevation that is approximately 100 feet lower than this site.

4.4.1 2,3,7,8-TCDD TEQ

The 2,3,7,8-TCDD TEQ calculated concentration exceeds the soil leaching RBC of 6.8E-06 mg/kg in only 1 of 9 samples (JBRA-01 at a concentration of 1E-05 mg/kg from 0 to 0.5 foot bgs). The 2,3,7,8-TCDD TEQ calculated concentrations do not exceed the soil leaching RBC in deeper soil samples collected at 1 foot to 1.5 feet bgs and 3 to 3.5 feet bgs at JBRA-01, indicating leaching is not occurring. The 2,3,7,8-TCDD TEQ calculated concentration do not exceed the soil leaching RBC in samples collected at locations JBRA-02 and JBRA-03. Therefore, the migration to groundwater pathway is considered incomplete.

4.4.2 Naphthalene

Naphthalene was detected at a concentration exceeding the soil leaching RBC of 0.077 mg/kg in only 1 of 9 samples (JBRA-01 at an estimated concentration of 0.17 mg/kg from 0 to 0.5 foot bgs). Naphthalene was not detected in deeper soil samples collected at 1 foot to 1.5 feet bgs and 3 to 3.5 feet bgs at JBRA-01 (Appendix C), indicating leaching is not occurring. Naphthalene was not detected in samples collected at locations JBRA-02 and JBRA-03. Therefore, the migration to groundwater pathway is considered incomplete.

4.4.3 Leaching to Groundwater Evaluation Conclusions

The migration to groundwater pathway is incomplete at the fire ring within the J.C. Boyle retained easement areas for dioxins (2,3,7,8-TCDD TEQ) and naphthalene. These are the only two COPCs with leaching potential encountered at the site.

4.5 Ecological Risk Assessment

This section summarizes the streamlined ecological risk assessment completed for the site. The ecological risk assessment was conducted in accordance with the methods presented in the Oregon SIR (Jacobs 2023b) on a sample-by-sample basis for soil exposure pathways. The detailed risk estimates are presented in Appendix F.

Several metals and dioxins exceeded their respective No Effect ESLs (Step 1). In addition, selected metals and dioxins also exceeded their Low Effect ESLs (Step 2). Vanadium exceeded the bird ecological preliminary remedial goal (EcoPRG) and 2,3,7,8-TCDD TEQ Mammal exceeded the mammal EcoPRG. However, all area use factor (AUF)-adjusted hazard quotients (HQs) were less than 1. For this reason, there were no analytes in site soil retained for risk management based on potential risks to ecological receptors.

The weight of evidence rationale for each analyte is summarized as follows (Table 4-5, Appendix F):

- Weight of Evidence Code “A” – Chemical is not retained for risk management for ecological receptors. Although some individual sample results exceeded the No Effect ESL, none of the detected results exceeded the Low Effect ESL or EcoPRGs for birds or mammals. In addition,

there were no exceedances of the background threshold value (BTV) for metals. This weight of evidence code applies to barium and chromium

- Weight of Evidence Code "B" – Chemical is not retained for risk management for ecological receptors. Some detected results exceeded both the No Effect ESL and the Low Effect ESL; however, none of the results exceeded the site-specific EcoPRGs for birds or mammals (100 percent site use). This weight of evidence rationale applies to the following:
  - Metals: cobalt, copper, nickel, and zinc
  - Dioxins: 2,3,7,8-TCDD TEQ Bird
- Weight of Evidence Code "C" – Chemical is not retained for risk management for ecological receptors. Some detected results exceeded the No Effect ESL and Low Effect ESL as well as the Bird or Mammal EcoPRG assuming 100 percent site use; however, there were no exceedances of the AUF-adjusted EcoPRGs and there were no exceedances of the BTVs. This weight of evidence rationale applies to vanadium.
- Weight of Evidence Code "D" – Chemical is not retained for risk management for ecological receptors. Some detected results exceeded the No Effect ESL and Low Effect ESL as well as the Mammal EcoPRG assuming 100 percent site use; however, there were no exceedances of the AUF-adjusted EcoPRGs. This weight of evidence rationale applies to 2,3,7,8-TCDD TEQ Mammal.

4.6 Conclusion

No further investigations or cleanup work are necessary at the fire ring found within the J.C. Boyle retained easement areas based on the following:

- The human health risk assessment did not result in recommendations of COPCs for risk management.
- The leaching to groundwater evaluation concluded that the migration to groundwater is incomplete for the soil leaching COPCs identified at the site.
- The ecological risk assessment did not result in recommendations of COPCs for risk management.

Table 4-3. Human Health Risk Evaluation for COPCs in Soil at the Fire Ring within the J.C. Boyle Retained Easement Areas

Analytic Method	Contaminant of Interest	CAS	Maximum Detected Concentration (mg/kg)	EPC (mg/kg)	EPC Basis	Background Related (Yes/No)	RBC, Residential[a] (mg/kg)	EPC Exceeds Residential RBC?	RBC, Construction Worker[a] (mg/kg)	EPC Exceeds Construction Worker RBC?
Surface Soils (0 to 2 feet below ground surface)										
CALC	2,3,7,8-TCDD TEQ	TEQ-M0	1.0E-05	4.6E-06	95% UCL	No	4.7E-06	No	1.7E-04	No
SW6020	Cobalt	7440-48-4	52.3	48.4	95% UCL	Yes	--	No	--	No
Mixed-Zone Soils (0 to 10 feet below ground surface)										
CALC	2,3,7,8-TCDD TEQ	TEQ-M0	1.0E-05	3.3E-06	95% UCL	No	4.7E-06	No	1.7E-04	No
SW6020	Cobalt	7440-48-4	52.3	41.9	95% UCL	Yes	--	No	--	No

Notes:

[a] Risk-based concentrations from ODEQ. May 2018. https://www.oregon.gov/deq/Hazards-and-Cleanup/env-cleanup/Pages/Risk-Based-Decision-Making.aspx. RBCs for ingestion, direct contact, and inhalation.

-- = not applicable

2,3,7,8-TCDD TEQ = 2,3,7,8-Tetrachlorodibenzo-P-dioxin toxic equivalent

CAS = Chemical Abstract Service

COPC = constituent of potential concern

EPC = exposure point concentration

mg/kg = milligram(s) per kilogram

ODEQ = Oregon Department of Environmental Quality

RBC = risk-based concentration

UCL = upper confidence limit

Table 4-4. Soil Leaching Evaluation for COPCs in Soil at the Fire Ring within the J.C. Boyle Retained Easement Areas

Analytic Method	Contaminant of Interest	CAS	Maximum Detected Concentration (mg/kg)	EPC (mg/kg)	EPC Basis	Background Related (Yes/No)	RBC, Soil Leaching[a] (mg/kg)	EPC Exceeds Soil Leaching RBC?
CALC	2,3,7,8-TCDD TEQ	TEQ-M0	1.0E-05	3.3E-06	95% UCL	No	6.8E-06	No
SW8270C	**Naphthalene**	**91-20-3**	**0.17**	**0.17**	**MDC**	**No**	**0.077**	**Yes**

Notes:

[a] Risk-based concentrations from ODEQ. May 2018. https://www.oregon.gov/deq/Hazards-and-Cleanup/env-cleanup/Pages/Risk-Based-Decision-Making.aspx. RBCs for leaching to groundwater, residential scenario.

Bold indicates analyte exceeds RBC.

2,3,7,8-TCDD TEQ = 2,3,7,8-Tetrachlorodibenzo-P-dioxin toxic equivalent

CAS = Chemical Abstract Service

COPC = constituent of potential concern

EPC = exposure point concentration

MDC = maximum detected concentration

mg/kg = milligram(s) per kilogram

ODEQ = Oregon Department of Environmental Quality

RBC = risk-based concentration

UCL = upper confidence limit

Table 4-5. Weight of Evidence for Ecological Receptors in Soil Exposure Pathways – 2023 Data for the Fire Ring within the J.C. Boyle Retained Easement Areas

Analytes		Background Comparison	Step 1: Screening Evaluation	Step 2: Refined Evaluation	Step 3: Site-Specific Evaluation				Step 4: Weight of Evidence	
Class	Detected Analytes	Background HQ>1	No Effect HQ>1	Low Effect HQ>1	Bird EcoPRG HQ>1	Mammal EcoPRG HQ>1	Bird AUF Adjusted HQ>1	Mammal AUF Adjusted HQ>1	Retain for Risk Management?	Rationale
Metal	Barium	--	3	--	--	--	--	--	No	A
Metal	Chromium	--	2	--	--	--	--	--	No	A
Metal	Cobalt	--	3	2	--	--	--	--	No	B
Metal	Copper	2	3	2	--	--	--	--	No	B
Metal	Nickel	--	3	3	--	--	--	--	No	B
Metal	Vanadium	--	3	3	3	--	--	--	No	C
Metal	Zinc	1	3	1	--	--	--	--	No	B
DXN	2,3,7,8-TCDD TEQ Bird	--	3	1	--	--	--	--	No	B
DXN	2,3,7,8-TCDD TEQ Mammal	--	3	1	--	1	--	--	No	D

Notes:

Number presented under each step identifies the number of samples collected from 0 to 6 feet bgs that exceeded the indicated screening level or EcoPRG.

-- = No samples had exceedances; analyte not retained for further evaluation.

2,3,7,8-TCDD TEQ = 2,3,7,8-Tetrachlorodibenzo-P-dioxin toxic equivalent

AUF = area use factor

BTV = background threshold value

DXN = dioxin

EcoPRG = ecological preliminary remedial goal

ESL = ecological screening level

HQ = hazard quotient

Weight of Evidence Rationale Codes:

A = Chemical is not retained for risk management for ecological receptors. Although some individual sample results exceeded the No Effect ESL, none of the detected results exceeded the Low Effect ESL or EcoPRGs for birds or mammals. In addition, there were no exceedances of the BTV (metals).

B = Chemical is not retained for risk management for ecological receptors. Some detected results exceeded both the No Effect ESL and the Low Effect ESL; however, none of the results exceeded the site-specific EcoPRGs for birds or mammals (100% site use).

C = Chemical is not retained for risk management for ecological receptors. Some detected results exceeded the No Effect ESL and Low Effect ESL as well as the Bird or Mammal EcoPRG assuming 100% site use; however, there were no exceedances of the AUF-adjusted EcoPRGs and there were no exceedances of the BTVs.

D = Chemical is not retained for risk management for ecological receptors. Some detected results exceeded the No Effect ESL and Low Effect ESL as well as the Mammal EcoPRG assuming 100% site use; however, there were no exceedances of the AUF-adjusted EcoPRGs.

5. Summary of Recommended Action

This section summarizes the recommendation for further action at J.C. Boyle retained easements assessed in accordance with the Oregon SIWP Supplement (Jacobs 2023a). On the basis of the environmental desktop review, site reconnaissance, and investigation and risk assessment of the fire ring, the J.C. Boyle retained easements are recommended for closure under a process developed between PacifiCorp, the KRRC, and the State of Oregon, thereby satisfying the requirements of the Agreement.

The rationale for recommended closure is summarized as follows:

- No new PECs were identified within the retained easement areas per the environmental desktop review.
- The fire ring was the only feature observed during the site reconnaissance that was considered a PEC.
- The concentration of COPCs at the fire ring did not exceed the target risk threshold for human health or ecological receptors and the migration to groundwater pathway is determined to be incomplete.

Because no other PECs were identified in the environmental review of the J.C. Boyle retained easements and no further action is planned, the J.C. Boyle retained easements are recommended for closure.

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Appendix A
Retained Easement Environmental Review

Lower Klamath Project (FERC No. P-14803)

Retained Easement Environmental Review, Klamath County, Oregon

Final

March 2024

Lower Klamath Project
(FERC No. P-14803)

Project No:	D3514100
Document Title:	Retained Easement Environmental Review, Klamath County, Oregon
Document No.:	231201171547_3f7a51a1
Revision:	Final
Date:	March 2024
Client Name:	PacifiCorp, Demian Ebert, Klamath Program Manager, 503-813-6625
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Executive Summary

As part of the Lower Klamath Project (Project), PacifiCorp, the Klamath River Renewal Corporation, and the states of California and Oregon have entered into a legally binding Property Transfer Agreement (Agreement) that identifies 17 pre-existing environmental conditions (PECs) located in the states of California and Oregon. The PECs are identified in Exhibit C of the Agreement.

Retained easements were not assessed under the Phase I environmental site assessments (ESAs) performed by AECOM Technical Services, Inc. (AECOM) in 2018 for the J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate developments as part of the Agreement, and because the retained easements were not assessed, there is potential for recognized environmental conditions (RECs) to be present within the easements.

Purpose

This report presents the results of an environmental review conducted by Jacobs Engineering Group Inc. (Jacobs) for PacifiCorp. The portion of the Project investigated by Jacobs during this environmental review is limited to the retained easements associated with the J.C. Boyle Development. The easements comprise approximately 52 acres of the Project in Klamath County, Oregon. A separate environmental review has been prepared for the retained easements associated with the Project in Siskiyou County, California. The purpose of this environmental review is to identify PECs within or adjacent to the retained easements.

Methodology

The environmental review consisted of a desktop review and site reconnaissance surveys of the retained easements. The desktop review included review of previous Phase I ESAs, the Environmental Database Report (EDR 2023), and other online database searches of regulatory agency files from the Oregon Department of Environmental Quality website (ODEQ 2023). Additional information regarding locations of oil and gas wells or wellfields was accessed from the Oregon Department of Geology and Mineral Industries website (Oregon DOGAMI 2023). Locations of underground pipelines were obtained from the U.S. Department of Transportation National Pipeline Mapping System (NPMS 2023).

Summary of Results

Based on a review of the EDR, a review of the previous Phase I ESA, regulatory agency file searches, and site reconnaissance conducted at the retained easements, no new PECs were identified at the retained easements.

Summary of Other Environmental Issues Identified in Retained Easement Areas

During the site reconnaissance surveys of retained easement areas performed by qualified staff in April 2023, the following were observed: a rusted 55-gallon drum with bullet holes, household debris, an area of stressed vegetation, and a fire ring. Only the fire ring is considered a PEC.

Contents

Attachments

Tables

Figure

Acronyms and Abbreviations

°F	degree(s) Fahrenheit
AECOM	AECOM Technical Services, Inc.
AMSD	Approximate Minimum Search Distance
AST	aboveground storage tank
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CORRACTS	Corrective Action Tracking System
CORTESE	Hazardous Wastes and Substances List
CPS	Cleanup Program Sites
DOGAMI	Oregon Department of Geology and Mineral Industries
ECHO	Enforcement and Compliance History Information
ECSI	Environmental Cleanup Site Information Database
EDR	Environmental Database Report
EDR, Inc.	Environmental Data Resources, Inc.
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	environmental site assessment
FEMA	Federal Emergency Management Agency
FID	Facility Inventory Database
FINDS	Facility Index System/Facility Registry System
HAZNET	Facility Manifest Data
HMS	Industrial Waste and Underground Storage Tank Sites
HWS	Hazardous Waste Sites
HWTS	Hazardous Waste Tracking System
Jacobs	Jacobs Engineering Group Inc.
KRRC	Klamath River Renewal Corporation
LQG	Large Quantity Generator
LUST	leaking underground storage tank
N/A	not applicable
NPL	National Priorities List
ODEQ	Oregon Department of Environmental Quality
PCB	polychlorinated biphenyl

PEC	pre-existing environmental condition
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RGA	Recovered Government Archive
SEMS	Superfund Enterprise Management System
SQG	Small Quantity Generator
SWEEPS	Statewide Evaluation and Environmental Planning System
UST	underground storage tank
WMUDS	Waste Management Unit Data System

1. Introduction

As part of the Lower Klamath Project (Project), PacifiCorp, the Klamath River Renewal Corporation (KRRC), and the states of Oregon and California have entered into a legally binding Property Transfer Agreement (Agreement) that identifies 17 pre-existing environmental conditions (PECs) located in the states of California and Oregon. The PECs are identified in Exhibit C of the Agreement.

Retained easements were not assessed under the Phase I environmental site assessments (ESAs) performed for the J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate developments (AECOM 2018). Because the retained easements were not assessed, there is potential for recognized environmental conditions (RECs) to be present within the retained easements.

This report presents the results of an environmental review conducted by Jacobs Engineering Group Inc. (Jacobs) on behalf of PacifiCorp for the retained easements that are part of the Project in Klamath County, Oregon (Figure 1-1) and in accordance with the *Oregon Site Investigation Work Plan Supplement No. 1* (Oregon SIWP Supplement) (Jacobs 2023a). The findings of this report are summarized in the *Oregon Site Investigation Report Supplement No. 1* (Oregon SIR1) (Jacobs 2023b), to which this report is appended. A separate environmental review has been prepared for the retained easements that are part of the Project in Siskiyou County, California.

1.1 Project Background

This environmental review was performed for the approximately 52 acres of retained easements associated with the Oregon portion of the Project to identify areas of potential environmental concern within or adjacent to the retained easements. Identified areas of potential concern may require additional investigation or analysis.

1.2 Scope of Work

The scope of this environmental review included an environmental desktop review of public records and site reconnaissance surveys of the retained easements. The environmental desktop review was limited to a review of previous Phase I ESAs, an Environmental Database Report (EDR 2023) containing historical topographic maps and historical aerial photographs, and other online database searches of regulatory agency files from the Oregon Department of Environmental Quality (ODEQ) website (ODEQ 2023). Additional information regarding locations of oil and gas wells or wellfields was accessed from the Oregon Department of Geology and Mineral Industries (DOGAMI) (Oregon DOGAMI 2023). Information on the locations of underground pipelines was obtained from the U.S. Department of Transportation National Pipeline Mapping System (NPMS 2023).

Jacobs reviewed these sources to identify properties with known or suspected potential environmental concerns that are adjacent to or topographically upgradient of the retained easements and have a likely potential to affect soil and groundwater at the retained easements. Jacobs based its assessment on location, chemical constituent types, and potentially affected media (soil and groundwater).

Preparation of this environmental review did not include the following items:

- Identification of out-of-scope considerations such as asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural/historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, high-voltage power lines, or mold.

- Title search, environmental lien search, or identification of activity use limitations.
- Interviews with current or historical property owners or site managers.
- Search of historic Sanborn Fire Insurance maps or historical city directories.

Site reconnaissance surveys were conducted on April 19, 2023, to visually survey the retained easements and identify evidence of new PECs (i.e., PECs not previously identified in the Agreement that are also within a retained easement).

1.3 Significant Assumptions

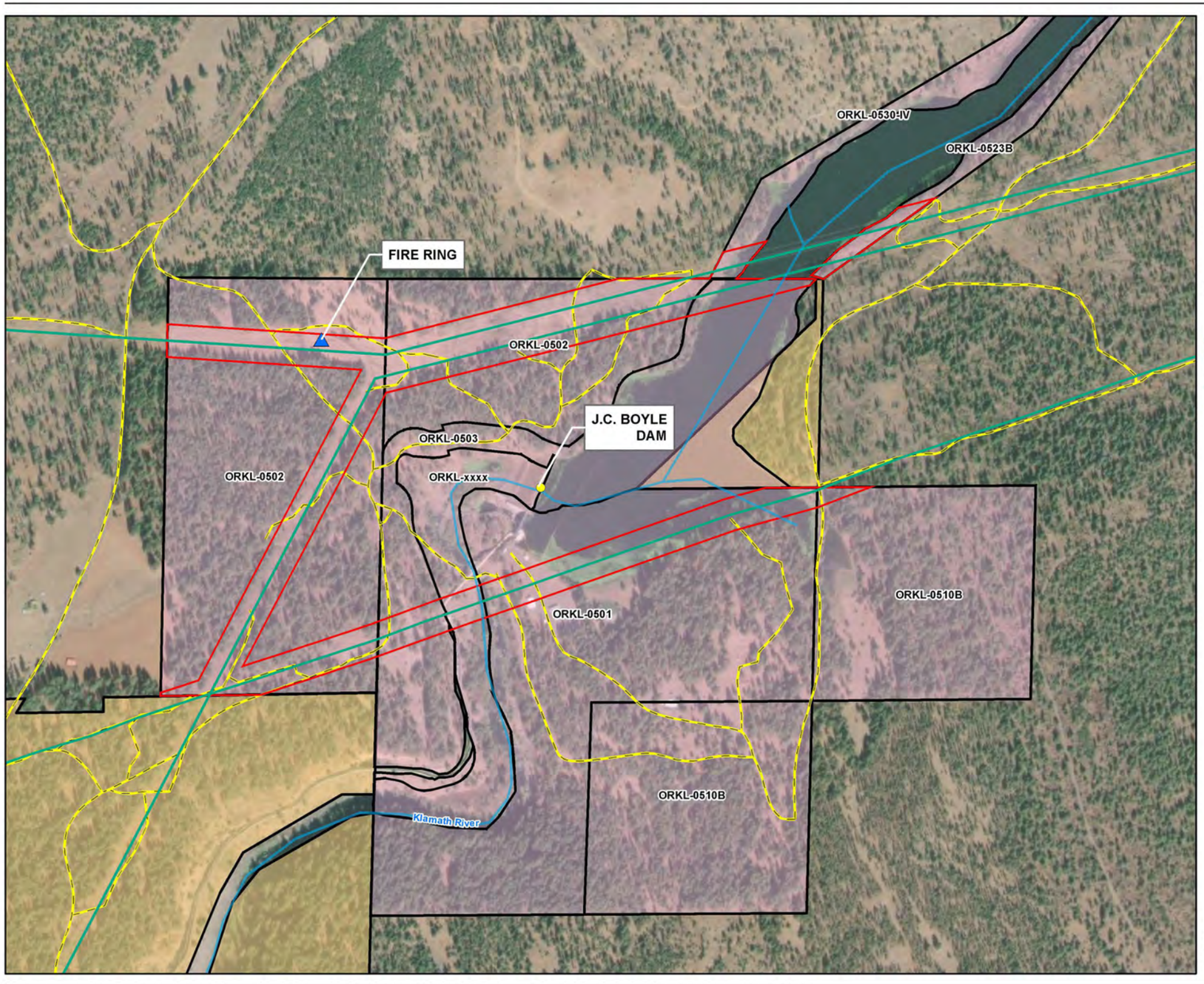
This environmental review did not include any sampling, monitoring, analytical, or geotechnical investigations. Jacobs assumes responsibility only for those conditions specifically authorized for investigation, as described in this report.

1.4 Special Terms and Conditions

Opinions given in this environmental review relative to the potential for hazardous materials or petroleum hydrocarbons to exist within the retained easements are based on information derived from information provided in the Environmental Database Report (EDR 2023) and other online sources described in this environmental review.

Public information sources have been reviewed and assumed to be providing complete and accurate information, without independent verification of that information. The findings and conclusions in this report are based solely on the limited scope of this environmental review, including information from a variety of sources that Jacobs believes to be reliable. Because the scope of an environmental review is necessarily limited and based, in part, on third-party sources and associated assumptions, Jacobs does not warrant that the retained easements do not include hazardous material or petroleum hydrocarbon releases in areas not identified in this report.

No investigation is thorough enough to completely exclude the presence of hazardous substances at a given site. If hazardous substances or hazardous conditions have not been identified during this review, such a finding should not be construed as a guarantee of the absence of such substances or conditions, but rather as the result of the services performed within the scope and limitations of the work performed.



LEGEND
- Dam Infrastructure to be Removed
- Observed Potential Environmental Feature
- Parcel B Lands
- KRRC Ownership
- BLM
- Retained Easements (~ 52 Acres, 10,200 Linear Ft)
- County Boundary
- Transmission Line
- Access Roads
- River/Creek

N

0 300 600
Feet

FIGURE 1-1
Environmental Review
J.C. Boyle Retained Easements
Lower Klamath Project

\\DC1VS01\GISPRO\I\PACIFICORP\KLAMATH_DAM_REMOVAL_REMEDIATION\MAPFILES\WORKING\2023\OR_ENV_REVIEW\FIG1-1_JC_BOYLE_RETAINEDEASEMENTS.MXD ED035443 11/10/2023 1:49:31 PM

Jacobs

2. Records Review

A review of certain public records was performed to help identify areas of potential environmental concern within the retained easements associated with the Project and adjoining properties. This section summarizes the record review results.

2.1 Standard Environmental Record Sources

An environmental database search of the retained easement areas associated with the Project was ordered from EDR, Inc., as a custom search, encompassing a 1-mile buffer around the Subject Property (Attachment 1). The EDR report (EDR, 2023) identified one site located within a 1-mile search distance of the Subject Property.

The site was identified by EDR in the ODEQ Environmental Cleanup Site Information (ECSI) Database on September 3, 2010, which recommended the J.C. Boyle Dam for site screening and possible remedial action (Table 2-1). Based on a review of the information provided for this site, it does not have the potential to impact the retained easement areas. Additionally, the J.C. Boyle Dam Development is not considered part of the retained easement area. Therefore, the potential for site screening or remedial action at the J.C. Boyle Dam Development as noted by ODEQ is addressed in the Oregon SIWP Supplement.

Table 2-1. Potential Environmental Concerns from Regulatory Database Search Sites

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD	Potential Environmental Concern for the Retained Easement Areas
Federal NPL Site List	1 mile	0	N/A
Federal Proposed NPL	1 mile	0	N/A
Federal NPL LIENS	Property	0	N/A
Federal Delisted NPL Site List	1 mile	0	N/A
Federal Facility Site Information Listing	0.5 mile	0	N/A
Federal SEMS List	0.5 mile	0	N/A
Federal SEMS-ARCHIVE Site List	0.5 mile	0	N/A
Federal RCRA CORRACTS	1 mile	0	N/A
Federal RCRA non-CORRACTS Treatment, Storage, and Disposal Facilities List	0.5 mile	0	N/A
Federal RCRA LQG List	0.25 mile	0	N/A
Federal RCRA SQG List	0.25 mile	0	N/A
Federal RCRA Very SQG List	0.25 mile	0	N/A
Federal Institutional/Engineering Control Registries	0.5 mile	0	N/A
Federal ERNS List	Property	0	N/A
RESPONSE State response sites	1 mile	0	N/A

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD	Potential Environmental Concern for the Retained Easement Areas
State and Tribal Lists of Comprehensive Environmental Response, Compensation, and Liability Information System Equivalent for Known HWS Identified for Investigation and/or Remediation	1 mile	0	N/A
State and Tribal Landfills or Solid Waste Facilities List	0.5 mile	0	N/A
State and Tribal LUST List	0.5 mile	0	N/A
Indian LUST List	0.5 mile	0	N/A
FEMA UST List	0.25 mile	0	N/A
State Registered UST Facility List	0.25 mile	0	N/A
State Registered AST Facility List	0.25 mile	0	No
Tribal USTs	0.25 mile	0	N/A
State and Tribal Voluntary Cleanup Sites List	0.5 mile	0	N/A
State and Tribal hazardous waste facilities, ECSI	1 mile	1	No
State and Tribal Brownfields Sites	0.5 mile	0	N/A
Waste Management WMUDS/SWAT	0.25 mile	0	N/A
SCH School Sites	0.25 mile	0	N/A
SWEEPS UST	0.25 mile	0	N/A
Historic UST	0.25 mile	0	N/A
RCRA NonGen	0.25 mile	0	N/A
FINDS	Property	0	No
ECHO	Property	0	N/A
Dry Cleaners	0.25 mile	0	N/A
EMI	Property	0	N/A
ENF	Property	0	N/A
HAZNET	Property	0	No
Historical CORTESE	0.5 mile	0	N/A
EDR Hist Auto	0.125 mile	0	N/A
EDR Hist Cleaner	0.125 mile	0	N/A
HWTS	Property	0	No
Total Records Identified		**1**	**None**

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD	Potential Environmental Concern for the Retained Easement Areas

Notes:

AST = aboveground storage tank

CORRACTS = Corrective Action Tracking System

CORTESE = Hazardous Wastes and Substances List

CPS = Cleanup Program Sites

ECHO = Enforcement and Compliance History Information

ECSI = Environmental Cleanup Site Information Database

ENF = Enforcement Action Listing

EMI = Emissions Inventory Data

ERNS = Emergency Response Notification System

FID = Facility Inventory Database

FINDS = Facility Index System/Facility Registry System

FEMA = Federal Emergency Management Agency

HAZNET = Facility Manifest Data

HMS = Industrial Waste and Underground Storage Tank Sites

HWS = Hazardous Waste Sites

HWTS = Hazardous Waste Tracking System

LQG = Large Quantity Generators

LUST = leaking underground storage tank

N/A = not applicable

NPL = National Priorities List

RCRA = Resource Conservation and Recovery Act

RGA = Recovered Government Archive

SEMS = Superfund Enterprise Management System

SQG = Small Quantity Generators

SWEEPS = Statewide Evaluation and Environmental Planning System

UST = underground storage tank

WMUDS/SWAT = State Water Resources Control Board Waste Management Unit Data System List

2.2 Historical Use Information of Site and Adjacent Properties

Jacobs performed a review of historical aerial photographs and U.S. Geological Survey topographical maps, provided by EDR, to obtain historical use information for the site and adjacent properties (EDR 2023; Attachment 1).

2.2.1 Aerial Photographs

An aerial photograph from 1998 was provided by EDR. The 1998 aerial photograph shows the Project features including the J.C. Boyle Dam infrastructure, roads, and transmission lines present.

2.2.2 Historical Topographic Maps

Topographic maps depict cultural and natural surface features and elevation contours. Topographic maps were provided by EDR for the years 1955, 1986, 1998, 2001, 2014, 2017, and 2020. In the 1955 topographic map, a highway is present on the north side of the Klamath River. Several dirt roads are also present in the area. A power line is shown traversing the area from the west toward the east. In the 1986 topographic map, the J.C. Boyle Dam and Reservoir are present with borrow pits shown to the north and west. Additional dirt roads and transmission lines are also present. In the 1998 topographic map, campgrounds have been added along the Klamath River. No significant changes are shown in the 2014, 2017, or 2020 topographic maps.

2.3 Additional Environmental Record Sources

In addition to the environmental database review, records from other local, county, and state agencies were reviewed to obtain information on the retained easements and adjoining properties.

Records were accessed from the Oregon state agencies in October 2023 for file information associated with the retained easements and adjoining properties. Information reviewed on the ODEQ website and the Oregon portal of the U.S. Environmental Protection Agency (EPA) website identified no additional sites (Table 2-2).

Table 2-2. Regulatory Agency File Review Summary

Agency	Information Reviewed	Summary of Findings
ODEQ	Information on Subject Property and adjoining properties	Information reviewed on ODEQ website identified no additional sites beyond those listed in EDR databases.
EPA's Oregon Portal	Information on Subject Property and adjoining properties	Information reviewed on EPA's Oregon portal website (EPA 2023) identified no additional sites beyond those listed in EDR databases.

2.3.1 Oil and Gas Maps

Oil and gas maps were obtained from Oregon DOGAMI (Oregon DOGAMI 2023). The location of underground pipelines was obtained from the U.S. Department of Transportation National Pipeline Mapping System (NPMS 2023) to determine whether oil or gas wells and fields are present within a 1-mile buffer of the retained easements. The results of the oil and gas map review indicated a geothermal well located approximated 0.2 mile to the south of the retained easement. No oil wells, oil fields, gas wells, or gas fields are located within a mile of the retained easements (Oregon DOGAMI 2023).

2.3.2 Pipelines

Jacobs reviewed the National Pipeline Mapping System (NPMS 2023) public viewer website for gas transmission pipelines and hazardous liquid trunk lines on or close to the retained easements. According to the information reviewed, a natural gas transmission line operated by Gas Transmission Northwest LLC is located approximately 0.5 mile to the west of the retained easement areas. There are no hazardous liquid trunk lines within a 1-mile buffer of the retained easement areas.

2.3.3 Previous Phase I Investigations

Previous Phase I investigations completed for the Project are documented in the following reports:

- *Phase I Environmental Site Assessments J.C. Boyle Dam, Copco No. 1 Dam, Copco No. 2 Dam, Iron Gate Dam, Iron Gate Fish Hatchery, Klamath River Renewal Project* (AECOM 2018)
- *Draft Phase I Environmental Site Assessment of Parcel B Lands, Klamath River Renewal Project* (AECOM 2020).

Jacobs reviewed these reports to determine whether findings are relevant to the retained easements. Based on the review, no RECs were identified within the retained easements.

3. Site Reconnaissance

3.1 Methodology and Limiting Conditions

This report is based in part on observations made by Jacobs during a site visit conducted on April 19, 2023, to visually survey the retained easement areas and identify evidence of new PECs, or PECs not previously identified in the previous Phase I ESAs investigations. Areas surveyed by the Phase I ESA and Parcel B Land ESA were not examined in this survey. During the site reconnaissance, the weather was partly cloudy with a temperature range of 36 degrees Fahrenheit (°F) to 45°F and a light layer of snow on the ground in shaded areas. Photographs from the site reconnaissance are presented in Attachment 2.

3.2 General Site Setting

3.2.1 Description of the Site

The retained easements serve as the right-of-way on KRRC-owned property for PacifiCorp's electrical transmission and distribution system (Photograph 1), other ancillary infrastructure, and related access roads. Per the Agreement, the retained easements are located on property now owned by the KRRC and that will eventually be transferred to the State of Oregon. Included are related electrical transmission facilities such as towers, poles, pads, anchors, supports, transformers, switchyards, vaults, substations, communications facilities, fiber optic or other communications equipment, and any other improvements or facilities associated with the management of these facilities. The retained easement area is the current physical location of the transmission facilities along with an addition area of 100 feet, as measured on the surface of the property and from each side of the transmission or distribution facility.

The retained easements extend from east of Highway 66 running east approximately 4,000 feet in two sections, one approximately 1,000 feet north of J.C. Boyle Dam and the other approximately 600 feet south of J.C. Boyle Dam. A third section approximately 2,000 feet long connects the above sections and is 1,400 feet west of J.C. Boyle Dam (Figure 1-1). The topography is mostly rolling hills. Vegetation is mostly grass and shrubs with scattered junipers and areas with evergreen trees. Elevations range from 3,722 feet above sea level where the retained easement crosses the Klamath River to 3,890 feet above sea level southwest of J.C. Boyle Dam. The eastern portions of the retained easement area around J.C. Boyle Reservoir were under J.C. Boyle Reservoir itself during reconnaissance surveys (Figure 1-1).

3.2.2 Hazardous Substance Use and Storage

No hazardous substance use and storage areas were observed.

3.2.3 Hazardous Material Storage and Waste Areas

No hazardous material storage and waste areas were observed.

3.2.4 Transformers and Polychlorinated Biphenyl-containing Equipment

Pole-mounted transformers were observed as part of the existing PacifiCorp electrical distribution system and appear to be in good working condition. None of PacifiCorp's existing transformers use polychlorinated biphenyl (PCB)-containing oil.

3.2.5 Petroleum Products

No petroleum products were observed.

3.2.6 Underground Storage Tanks

No underground storage tanks were observed.

3.2.7 Aboveground Storage Tanks

No aboveground storage tanks were observed.

3.2.8 Other Suspect Containers

The only suspect container observed was a rusted 55-gallon drum (Photograph 2) with bullet holes indicating it had been used for target shooting. No soil staining was observed nor were there additional containers at the drum location.

3.2.9 Pits, Sumps, Drywells, or Catchbasins

No pits, sumps, drywells, or catchbasins were observed.

3.2.10 Solid Waste Dumping/Landfill

While no solid waste dumping/landfill areas were observed, household debris was observed, which consisted of broken glass, glass bottles, food and cigarette tins, and dishware.

3.2.11 Stained Soil/Stressed Vegetation

An area of approximately 35 feet by 5 feet of stressed vegetation was observed (Photograph 3). The area observed appeared to be the remains of a fallen tree that had substantially decayed and recently burned. Surrounding soil did not indicate a recent fire in the area.

A fire ring was observed in the northwest portion of the retained easement area (Photograph 4). There were small beverage cans and other burned metal debris in the fire ring, and it appeared to have been used multiple times.

3.2.12 Other Environmental Considerations

Not all sections of the retained easement areas were observed because the eastern portions of the retained easement area around the J.C. Boyle Reservoir were underwater during reconnaissance surveys.

4. Findings and Conclusions

This report presents the results of the environmental review conducted by Jacobs for the retained easement areas associated with the Project in Klamath County, Oregon.

4.1 Records Review

Based on a review of the EDR, a review of the previous Phase I ESAs, and regulatory agency file searches, no new PECs were identified at the retained easements.

4.2 Site Reconnaissance Results

During the site reconnaissance surveys conducted on April 19, 2023, a rusted 55-gallon drum with bullet holes, household debris (broken glass, bottles, food and cigarette tins, and dishware), an area of stressed vegetation, and a fire ring were observed at various locations across the retained easements. The 55-gallon drum, debris, and stressed vegetation were limited in size and quantity of material, and no indications of contamination or release were observed. Only the fire ring is considered a PEC. PacifiCorp decided to sample the fire ring as described in the Oregon SIR1 (Jacobs 2023b).

5. Qualifications of Environmental Professionals

Mr. Alan Bradford is a Jacobs senior hydrogeologist/senior project manager with more than 35 years of project management and technical experience involving hydrogeologic characterization, Phase I and Phase II ESAs, initial site assessments (ISAs), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial investigations and feasibility studies, Resource Conservation and Recovery Act facilities investigations, groundwater basin studies, waste management, underground storage tank services, and remediation for municipal, government, and private industry clients. He is a California Professional Geologist (No. 6119) and California Certified Hydrogeologist (No. HG 48).

Mr. Dave Golles is a Jacobs project environmental consultant with more than 26 years of experience in managing and performing Phase I and Phase II ESAs and ISAs. He has completed numerous site assessments for municipal, government, and private industry clients. He also performs environmental evaluations and prepares environmental compliance documents (environmental impact statements, environmental assessments, and environmental impact reports) under the National Environmental Policy Act and California Environmental Quality Act.

6. References

AECOM Technical Services, Inc. (AECOM). 2018. *Phase I Environmental Site Assessment, J.C. Boyle Dam, Copco No. 1 Dam, Copco No. 2 Dam, Iron Gate Dam, Iron Gate Fish Hatchery, Klamath River Renewal Project.* November.

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Attachment 1
Environmental Database Report

Available upon request.

Attachment 2
Site Photographs

Jacobs

Attachment 2
Site Photographs

Project Title	**Retained Easement Environmental Review for the Lower Klamath Project**
Location	Klamath County, Oregon
Date	December 2023

Photograph 1: Distribution Easement

Taken by: A. Vogt, K. Johnson *Date taken: April 19, 2023* *Photo ID #: OID504_AID555*

Photograph 2: 55-Gallon Drum with Bullet Holes

Taken by: A. Vogt, K. Johnson Date taken: April 19, 2023 Photo ID #: OID505_AID563

Photograph 3: Stressed Vegetation

Taken by: A. Vogt, K. Johnson *Date taken: April 19, 2023* *Photo ID #: OID103_AID158*

Photograph 4: Fire Ring

Taken by: A. Vogt, K. Johnson *Date taken: April 19, 2023* *Photo ID #: OID503_AID556*

Appendix B
Boring Logs

PROJECT NUMBER:	BORING NUMBER:
D3514100	JBRA-01 SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project LOCATION : JC Boyle Fire Ring

COORDINATES : *pending* GROUND ELEVATION : NM

DRILLING CONTRACTOR : Jacobs DRILLING METHOD, EQUIPMENT: Hand Auger

WATER LEVEL : --- Start : 6/22/2023 END : 6/22/2023 LOGGER : K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				POORLY GRADED SAND WITH GRAVEL (SP) brown, dry to moist, with some ash/charcoal	
				SANDY SILT (ML) orange-brown, moist	
				SILTY SAND (SM) orange-brown, moist	
				SANDY SILT (ML) orange-brown, moist	
				Boring terminated at 4 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	JBRA-02	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project — LOCATION : JC Boyle Fire Ring

COORDINATES : *pending* — GROUND ELEVATION : NM

DRILLING CONTRACTOR : Jacobs — DRILLING METHOD, EQUIPMENT: Hand Auger

WATER LEVEL : --- — Start : 6/22/2023 — END : 6/22/2023 — LOGGER : K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				SANDY SILT WITH GRAVEL (ML) orange-brown, moist; contains some ash/charcoal	
				SANDY SILT (ML) orange-brown, moist	
5					
				Boring terminated at 6 ft bgs.	

PROJECT NUMBER:	BORING NUMBER:	
D3514100	JBRA-03	SHEET 1 OF 1

Borehole Log

PROJECT : Lower Klamath Hydroelectric Project | LOCATION : JC Boyle Fire Ring

COORDINATES : *pending* | GROUND ELEVATION : NM

DRILLING CONTRACTOR : Jacobs | DRILLING METHOD, EQUIPMENT: Hand Auger

WATER LEVEL : --- | Start : 6/22/2023 | END : 6/22/2023 | LOGGER : K.Eley

DEPTH BELOW GROUND SURFACE (ft)	INTERVAL / RECOVERY (ft)	CORE ID	GRAPHIC LOG	SOIL DESCRIPTION: Soil name, USCS, color, moisture, density, description	COMMENTS
				SILTY SAND WITH GRAVEL (SM) tan-brown, moist; sand fine-grained	
				SANDY SILT (ML) orange-brown, moist	
				Boring terminated at 2 ft bgs.	

Appendix C
Analytical Laboratory Results

Appendix C1
Laboratory Results

Table C-1. J. C. Boyle Fire Ring Analytical Results

					Location	JBRA-01			JBRA-02				JBRA-03	
					Sample Date	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023
					Depth Interval	0 - 0.5	1.5 - 2	3 - 3.5	0 - 0.5	1.5 - 2	3.5 - 4	5.5 - 6	0 - 0.5	1.5 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Ecological Receptors**	**Human Health**	**Leaching to Groundwater**									
SW6010B														
Antimony	7440-36-0	mg/kg	0.67	31		3.22 U	4.56 U	4.11 U	3.89 U	4.59 U	4.47 U	4.31 U	3.31 U	4.21 U
Arsenic	7440-38-2	mg/kg	19	19		**2.21 J**	2.22 U	2 U	**5.26**	**2.31 J**	2.18 U	2.1 U	**2.32 J**	2.05 U
Barium	7440-39-3	mg/kg	630	15000		**151**	**267**	**323**	**194**	**280**	**398**	**378**	**203**	**253**
Beryllium	7440-41-7	mg/kg	2.5	160		**0.338 J**	**1.32**	**1.28**	**0.732**	**1.38**	**1.59**	**1.47**	**0.768**	**1.29**
Cadmium	7440-43-9	mg/kg	0.54	78		0.185 U	0.261 U	0.236 U	0.223 U	0.263 U	0.257 U	0.248 U	0.19 U	0.242 U
Chromium	7440-47-3	mg/kg	200	120000		**22.6**	**56.5**	**55.1**	**56.5**	**62.2**	**60.1**	**56.1**	**44.9**	**56.7**
Cobalt	7440-48-4	mg/kg	13	23		**15.6**	**47.6**	**24.6**	**24.9**	**52.3**	**39.9**	**25**	**23**	**48.6**
Copper	7440-50-8	mg/kg	73	3100		**41.6**	**83.9**	**82.9**	**52.7**	**90.3**	**104**	**115**	**52.2**	**84.1**
Lead	7439-92-1	mg/kg	34	400	34	**3.86**	**7.18**	**7.32**	**5.16**	**8.11**	**8.67**	**8.06**	**5.42**	**8.62**
Molybdenum	7439-98-7	mg/kg	2.6	390		0.58 U	0.821 U	0.741 U	**0.766 J**	0.827 U	0.807 U	0.777 U	0.597 U	0.759 U
Nickel	7440-02-0	mg/kg	110	1500		**49.9**	**79.7**	**61.6**	**65.3**	**81.8**	**69.2**	**54.9**	**55.1**	**79**
Selenium	7782-49-2	mg/kg	0.52	390		1.38 U	1.95 U	1.76 U	1.66 U	1.96 U	1.91 U	1.84 U	1.42 U	**2.23 J**
Silver	7440-22-4	mg/kg	2.6	390		0.162 U	0.23 U	0.207 U	0.196 U	0.231 U	0.226 U	0.217 U	0.167 U	0.212 U
Thallium	7440-28-0	mg/kg	77	2.8		2.37 U	3.36 U	3.03 U	2.87 U	3.38 U	3.3 U	3.18 U	2.44 U	3.1 U
Vanadium	7440-62-2	mg/kg	280	390		**65.6**	**179**	**156**	**142**	**209**	**219**	**183**	**123**	**198**
Zinc	7440-66-6	mg/kg	170	23000		**490**	**76.9**	**74.3**	**65.2**	**76**	**71.5**	**73.4**	**71.4**	**69**
SW7471A														
Mercury	7439-97-6	mg/kg	0.24	23		0.035 U	0.049 U	0.0452 U	0.0445 U	0.0487 U	0.0511 U	0.049 U	0.0357 U	0.0474 U
SW8260B														
1,1,1,2-Tetrachloroethane	630-20-6	mg/kg	0.07	2		0.00033 U	0.00046 U	0.00043 U	0.00038 U	0.00046 U	0.00046 U	0.00044 U	0.00033 U	0.00042 U
1,1,1-Trichloroethane	71-55-6	mg/kg	260	53000	190	0.00026 U	0.00037 U	0.00034 U	0.00031 U	0.00037 U	0.00037 U	0.00035 U	0.00027 U	0.00034 U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.127	0.6		0.00061 U	0.00086 U	0.0008 U	0.00072 U	0.00086 U	0.00087 U	0.00082 U	0.00063 U	0.00079 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	mg/kg		400000		0.00052 U	0.00073 U	0.00068 U	0.00061 U	0.00073 U	0.00074 U	0.00069 U	0.00053 U	0.00067 U
1,1,2-Trichloroethane	79-00-5	mg/kg	0.32	3.2	0.0063	0.00052 U	0.00073 U	0.00068 U	0.00061 U	0.00073 U	0.00074 U	0.0007 U	0.00053 U	0.00067 U
1,1-Dichloroethane	75-34-3	mg/kg	210	56	0.044	0.00031 U	0.00044 U	0.00041 U	0.00037 U	0.00044 U	0.00045 U	0.00042 U	0.00032 U	0.0004 U
1,1-Dichloroethene	75-35-4	mg/kg	11	1800	6.7	0.0003 U	0.00042 U	0.00039 U	0.00035 U	0.00042 U	0.00042 U	0.0004 U	0.00031 U	0.00038 U
1,1-Dichloropropene	563-58-6	mg/kg				0.00044 U	0.00061 U	0.00057 U	0.00051 U	0.00061 U	0.00062 U	0.00058 U	0.00045 U	0.00056 U
1,2,3-Trichlorobenzene	87-61-6	mg/kg	20	63		0.00042 U	0.00059 U	0.00055 U	0.00049 U	0.00059 U	0.0006 U	0.00056 U	0.00043 U	0.00054 U
1,2,3-Trichloropropane	96-18-4	mg/kg		0.0051		0.00047 U	0.00066 U	0.00061 U	0.00055 U	0.00066 U	0.00067 U	0.00063 U	0.00048 U	0.00061 U
1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.27	24		0.00046 U	0.00065 U	0.0006 U	0.00054 U	0.00065 U	0.00065 U	0.00062 U	0.00047 U	0.00059 U
1,2,4-Trimethylbenzene	95-63-6	mg/kg	0.09	430	10	0.00067 U	0.00094 U	0.00088 U	0.00079 U	0.00095 U	0.00096 U	0.0009 U	0.00069 U	0.00087 U
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.0053		0.0037 U	0.0052 U	0.0049 U	0.0044 U	0.0053 U	0.0053 U	0.005 U	0.0038 U	0.0048 U
1,2-Dibromoethane	106-93-4	mg/kg		0.15	0.00012	0.00023 U	0.00032 U	0.0003 U	0.00027 U	0.00032 U	0.00033 U	0.00031 U	0.00024 U	0.0003 U
1,2-Dichlorobenzene	95-50-1	mg/kg	0.09	2200	36	0.00028 U	0.00039 U	0.00037 U	0.00033 U	0.00039 U	0.0004 U	0.00038 U	0.00029 U	0.00036 U
1,2-Dichloroethane	107-06-2	mg/kg	0.85	3.4	0.0028	0.00031 U	0.00043 U	0.0004 U	0.00036 U	0.00043 U	0.00044 U	0.00041 U	0.00032 U	0.0004 U
1,2-Dichloropropane	78-87-5	mg/kg	0.28	2.5		0.00031 U	0.00043 U	0.0004 U	0.00036 U	0.00043 U	0.00044 U	0.00041 U	0.00032 U	0.0004 U
1,3,5-Trimethylbenzene	108-67-8	mg/kg	0.07	430	11	0.0003 U	0.00042 U	0.00039 U	0.00035 U	0.00042 U	0.00043 U	0.0004 U	0.00031 U	0.00039 U
1,3-Dichlorobenzene	541-73-1	mg/kg	0.08			0.00028 U	0.0004 U	0.00037 U	0.00033 U	0.0004 U	0.0004 U	0.00038 U	0.00029 U	0.00036 U
1,3-Dichloropropane	142-28-9	mg/kg		1600		0.00033 U	0.00046 U	0.00043 U	0.00039 U	0.00047 U	0.00047 U	0.00044 U	0.00034 U	0.00043 U
1,4-Dichlorobenzene	106-46-7	mg/kg	0.89	8.1	0.057	0.00034 U	0.00048 U	0.00045 U	0.0004 U	0.00048 U	0.00049 U	0.00046 U	0.00035 U	0.00044 U
2,2-Dichloropropane	594-20-7	mg/kg				0.0003 U	0.00043 U	0.0004 U	0.00036 U	0.00043 U	0.00043 U	0.00041 U	0.00031 U	0.00039 U

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kodey Eley
Jacobs Engineering Group, Inc.
1100 112th Ave
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Bellevue, Washington 98004

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JOB DESCRIPTION

Klamath Falls Burn Pit

JOB NUMBER

570-142883-1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

Eurofins Calscience

Job Notes

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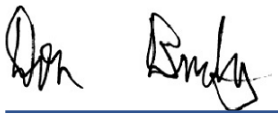

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Table of Contents

Definitions/Glossary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Dioxin

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-142883-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-142883-1

Receipt
The samples were received on 6/24/2023 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.1°C, 3.2°C and 3.3°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 570-343491 and analytical batch 570-343783 recovered outside control limits for Benzidine.

Method 8270C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 570-343491 and analytical batch 570-343783 were outside control limits: (570-142883-B-4-B MS) and (570-142883-B-4-C MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Dioxin
Method 8290A: The Isotope Dilution Analyte (IDA) recovery associated with the following samples is below the method recommended limit: JBRA-02-5.5-6.0 (570-142883-7) and JBRA-03-0.0-0.5 (570-142883-8). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010B: The method blank for preparation batch 570-344795 and analytical batch 570-345410 contained Chromium and Barium above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method Moisture: The request for dry weight reporting was received outside of holding time.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Client Sample ID: JBRA-01-0.0-0.5

Lab Sample ID: 570-142883-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.56	J	1.1	0.30	ug/Kg	1	☼	8260B	Total/NA
1-Methylnaphthalene	0.073	J	0.54	0.039	mg/Kg	1	☼	8270C	Total/NA
2-Methylnaphthalene	0.13	J	0.54	0.062	mg/Kg	1	☼	8270C	Total/NA
Naphthalene	0.17	J	0.54	0.062	mg/Kg	1	☼	8270C	Total/NA
2,3,7,8-TCDD	1.9	q	1.1	0.24	pg/g	1	☼	8290A	Total/NA
1,2,3,7,8-PeCDD	1.6	J	5.3	0.22	pg/g	1	☼	8290A	Total/NA
1,2,3,7,8-PeCDF	8.4		5.3	0.31	pg/g	1	☼	8290A	Total/NA
2,3,4,7,8-PeCDF	9.3		5.3	0.35	pg/g	1	☼	8290A	Total/NA
1,2,3,4,7,8-HxCDD	1.0	J	5.3	0.15	pg/g	1	☼	8290A	Total/NA
1,2,3,6,7,8-HxCDD	1.2	J	5.3	0.16	pg/g	1	☼	8290A	Total/NA
1,2,3,7,8,9-HxCDD	1.7	J	5.3	0.15	pg/g	1	☼	8290A	Total/NA
1,2,3,4,7,8-HxCDF	5.5		5.3	0.28	pg/g	1	☼	8290A	Total/NA
1,2,3,6,7,8-HxCDF	3.7	J	5.3	0.28	pg/g	1	☼	8290A	Total/NA
2,3,4,6,7,8-HxCDF	3.4	J	5.3	0.27	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	5.7	B	5.3	0.14	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	7.3		5.3	0.26	pg/g	1	☼	8290A	Total/NA
1,2,3,4,7,8,9-HpCDF	0.61	J	5.3	0.27	pg/g	1	☼	8290A	Total/NA
OCDD	16	B	11	0.20	pg/g	1	☼	8290A	Total/NA
OCDF	2.5	J B	11	0.11	pg/g	1	☼	8290A	Total/NA
Total TCDD	18	q	1.1	0.24	pg/g	1	☼	8290A	Total/NA
Total TCDF	240	q	1.1	0.89	pg/g	1	☼	8290A	Total/NA
Total PeCDD	13	q	5.3	0.22	pg/g	1	☼	8290A	Total/NA
Total PeCDF	61	q	5.3	0.33	pg/g	1	☼	8290A	Total/NA
Total HxCDD	16		5.3	0.16	pg/g	1	☼	8290A	Total/NA
Total HxCDF	22		5.3	0.29	pg/g	1	☼	8290A	Total/NA
Total HpCDD	10	B	5.3	0.14	pg/g	1	☼	8290A	Total/NA
Total HpCDF	11		5.3	0.27	pg/g	1	☼	8290A	Total/NA
2,3,7,8-TCDF - RA	36		1.1	0.17	pg/g	1	☼	8290A	Total/NA
Arsenic	2.21	J	3.38	1.57	mg/Kg	5	☼	6010B	Total/NA
Barium	151	B	3.38	0.160	mg/Kg	5	☼	6010B	Total/NA
Beryllium	0.338	J	0.563	0.0777	mg/Kg	5	☼	6010B	Total/NA
Chromium	22.6	B	1.13	0.210	mg/Kg	5	☼	6010B	Total/NA
Cobalt	15.6		1.13	0.232	mg/Kg	5	☼	6010B	Total/NA
Copper	41.6		2.25	1.08	mg/Kg	5	☼	6010B	Total/NA
Lead	3.86		2.25	0.461	mg/Kg	5	☼	6010B	Total/NA
Nickel	49.9		2.25	0.408	mg/Kg	5	☼	6010B	Total/NA
Vanadium	65.6		1.13	0.189	mg/Kg	5	☼	6010B	Total/NA
Zinc	490		5.63	1.30	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-01-1.5-2.0

Lab Sample ID: 570-142883-2

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,7,8-PeCDF	0.42	J	7.8	0.17	pg/g	1	☼	8290A	Total/NA
2,3,4,7,8-PeCDF	0.34	J	7.8	0.19	pg/g	1	☼	8290A	Total/NA
OCDD	3.3	J B	16	0.22	pg/g	1	☼	8290A	Total/NA
Total TCDF	5.8	q	1.6	0.19	pg/g	1	☼	8290A	Total/NA
Total PeCDF	0.77	J	7.8	0.18	pg/g	1	☼	8290A	Total/NA
Total HxCDF	0.33	J q	7.8	0.13	pg/g	1	☼	8290A	Total/NA
Total HpCDD	0.41	J q B	7.8	0.19	pg/g	1	☼	8290A	Total/NA
2,3,7,8-TCDF - RA	1.0	J	1.6	0.095	pg/g	1	☼	8290A	Total/NA
Barium	267	B	4.78	0.226	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: JBRA-01-1.5-2.0 (Continued) — Lab Sample ID: 570-142883-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Beryllium	1.32		0.797	0.110	mg/Kg	5	☼	6010B	Total/NA
Chromium	56.5	B	1.59	0.297	mg/Kg	5	☼	6010B	Total/NA
Cobalt	47.6		1.59	0.328	mg/Kg	5	☼	6010B	Total/NA
Copper	83.9		3.19	1.53	mg/Kg	5	☼	6010B	Total/NA
Lead	7.18		3.19	0.652	mg/Kg	5	☼	6010B	Total/NA
Nickel	79.7		3.19	0.577	mg/Kg	5	☼	6010B	Total/NA
Vanadium	179		1.59	0.268	mg/Kg	5	☼	6010B	Total/NA
Zinc	76.9		7.97	1.84	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-01-3.0-3.5 — Lab Sample ID: 570-142883-3

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDF	0.92	J	1.4	0.092	pg/g	1	☼	8290A	Total/NA
1,2,3,4,7,8-HxCDD	0.35	J q	6.9	0.085	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	0.29	J q B	6.9	0.076	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.36	J	6.9	0.10	pg/g	1	☼	8290A	Total/NA
OCDD	2.6	J q B	14	0.13	pg/g	1	☼	8290A	Total/NA
OCDF	0.50	J B	14	0.10	pg/g	1	☼	8290A	Total/NA
Total TCDF	3.2	q	1.4	0.092	pg/g	1	☼	8290A	Total/NA
Total PeCDF	0.14	J q	6.9	0.10	pg/g	1	☼	8290A	Total/NA
Total HxCDD	0.35	J q	6.9	0.083	pg/g	1	☼	8290A	Total/NA
Total HpCDD	0.66	J q B	6.9	0.076	pg/g	1	☼	8290A	Total/NA
Total HpCDF	0.47	J q	6.9	0.10	pg/g	1	☼	8290A	Total/NA
Barium	323	B	4.32	0.204	mg/Kg	5	☼	6010B	Total/NA
Beryllium	1.28		0.720	0.0993	mg/Kg	5	☼	6010B	Total/NA
Chromium	55.1	B	1.44	0.268	mg/Kg	5	☼	6010B	Total/NA
Cobalt	24.6		1.44	0.297	mg/Kg	5	☼	6010B	Total/NA
Copper	82.9		2.88	1.38	mg/Kg	5	☼	6010B	Total/NA
Lead	7.32		2.88	0.589	mg/Kg	5	☼	6010B	Total/NA
Nickel	61.6		2.88	0.521	mg/Kg	5	☼	6010B	Total/NA
Vanadium	156		1.44	0.242	mg/Kg	5	☼	6010B	Total/NA
Zinc	74.3		7.20	1.66	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-02-0.0-0.5 — Lab Sample ID: 570-142883-4

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDF	0.52	J	1.3	0.11	pg/g	1	☼	8290A	Total/NA
1,2,3,4,7,8-HxCDD	0.37	J	6.7	0.14	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	2.0	J B	6.7	0.16	pg/g	1	☼	8290A	Total/NA
OCDD	11	J B	13	0.26	pg/g	1	☼	8290A	Total/NA
OCDF	0.57	J q B	13	0.13	pg/g	1	☼	8290A	Total/NA
Total TCDF	1.3	q	1.3	0.11	pg/g	1	☼	8290A	Total/NA
Total PeCDF	0.38	J	6.7	0.10	pg/g	1	☼	8290A	Total/NA
Total HxCDD	0.37	J	6.7	0.14	pg/g	1	☼	8290A	Total/NA
Total HpCDD	3.8	J B	6.7	0.16	pg/g	1	☼	8290A	Total/NA
Arsenic	5.26		4.09	1.89	mg/Kg	5	☼	6010B	Total/NA
Barium	194	B	4.09	0.193	mg/Kg	5	☼	6010B	Total/NA
Beryllium	0.732		0.681	0.0940	mg/Kg	5	☼	6010B	Total/NA
Chromium	56.5	B	1.36	0.253	mg/Kg	5	☼	6010B	Total/NA
Cobalt	24.9		1.36	0.281	mg/Kg	5	☼	6010B	Total/NA
Copper	52.7		2.72	1.30	mg/Kg	5	☼	6010B	Total/NA
Lead	5.16		2.72	0.557	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: JBRA-02-0.0-0.5 (Continued) — Lab Sample ID: 570-142883-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.766	J	2.72	0.701	mg/Kg	5	☼	6010B	Total/NA
Nickel	65.3		2.72	0.493	mg/Kg	5	☼	6010B	Total/NA
Vanadium	142		1.36	0.229	mg/Kg	5	☼	6010B	Total/NA
Zinc	65.2		6.81	1.57	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-02-1.5-2.0 — Lab Sample ID: 570-142883-5

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
OCDD	1.2	J q B	15	0.22	pg/g	1	☼	8290A	Total/NA
Total PeCDD	0.22	J q	7.6	0.16	pg/g	1	☼	8290A	Total/NA
Total HpCDD	0.25	J B	7.6	0.11	pg/g	1	☼	8290A	Total/NA
Arsenic	2.31	J	4.82	2.23	mg/Kg	5	☼	6010B	Total/NA
Barium	280	B	4.82	0.228	mg/Kg	5	☼	6010B	Total/NA
Beryllium	1.38		0.803	0.111	mg/Kg	5	☼	6010B	Total/NA
Chromium	62.2	B	1.61	0.299	mg/Kg	5	☼	6010B	Total/NA
Cobalt	52.3		1.61	0.331	mg/Kg	5	☼	6010B	Total/NA
Copper	90.3		3.21	1.54	mg/Kg	5	☼	6010B	Total/NA
Lead	8.11		3.21	0.657	mg/Kg	5	☼	6010B	Total/NA
Nickel	81.8		3.21	0.581	mg/Kg	5	☼	6010B	Total/NA
Vanadium	209		1.61	0.270	mg/Kg	5	☼	6010B	Total/NA
Zinc	76.0		8.03	1.86	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-02-3.5-4.0 — Lab Sample ID: 570-142883-6

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,7,8-HxCDF	0.12	J	8.0	0.11	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	0.31	J B	8.0	0.13	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.20	J	8.0	0.12	pg/g	1	☼	8290A	Total/NA
OCDD	1.1	J q B	16	0.18	pg/g	1	☼	8290A	Total/NA
Total HxCDF	0.22	J	8.0	0.11	pg/g	1	☼	8290A	Total/NA
Total HpCDD	0.31	J B	8.0	0.13	pg/g	1	☼	8290A	Total/NA
Total HpCDF	0.20	J	8.0	0.12	pg/g	1	☼	8290A	Total/NA
Barium	398	B	4.70	0.222	mg/Kg	5	☼	6010B	Total/NA
Beryllium	1.59		0.783	0.108	mg/Kg	5	☼	6010B	Total/NA
Chromium	60.1	B	1.57	0.291	mg/Kg	5	☼	6010B	Total/NA
Cobalt	39.9		1.57	0.323	mg/Kg	5	☼	6010B	Total/NA
Copper	104		3.13	1.50	mg/Kg	5	☼	6010B	Total/NA
Lead	8.67		3.13	0.641	mg/Kg	5	☼	6010B	Total/NA
Nickel	69.2		3.13	0.567	mg/Kg	5	☼	6010B	Total/NA
Vanadium	219		1.57	0.263	mg/Kg	5	☼	6010B	Total/NA
Zinc	71.5		7.83	1.81	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-02-5.5-6.0 — Lab Sample ID: 570-142883-7

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.50	J B	7.3	0.13	pg/g	1	☼	8290A	Total/NA
OCDD	3.0	J B	15	0.39	pg/g	1	☼	8290A	Total/NA
Total HpCDD	0.94	J B	7.3	0.13	pg/g	1	☼	8290A	Total/NA
Barium	378	B	4.53	0.214	mg/Kg	5	☼	6010B	Total/NA
Beryllium	1.47		0.755	0.104	mg/Kg	5	☼	6010B	Total/NA
Chromium	56.1	B	1.51	0.281	mg/Kg	5	☼	6010B	Total/NA
Cobalt	25.0		1.51	0.311	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: JBRA-02-5.5-6.0 (Continued)

Lab Sample ID: 570-142883-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	115		3.02	1.45	mg/Kg	5	☼	6010B	Total/NA
Lead	8.06		3.02	0.617	mg/Kg	5	☼	6010B	Total/NA
Nickel	54.9		3.02	0.546	mg/Kg	5	☼	6010B	Total/NA
Vanadium	183		1.51	0.254	mg/Kg	5	☼	6010B	Total/NA
Zinc	73.4		7.55	1.74	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-03-0.0-0.5

Lab Sample ID: 570-142883-8

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
2,3,7,8-TCDF	0.72	J q	1.1	0.11	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDD	7.2	B	5.6	0.30	pg/g	1	☼	8290A	Total/NA
1,2,3,4,6,7,8-HpCDF	0.71	J q	5.6	0.24	pg/g	1	☼	8290A	Total/NA
OCDD	40	B	11	0.47	pg/g	1	☼	8290A	Total/NA
OCDF	1.7	J B	11	0.27	pg/g	1	☼	8290A	Total/NA
Total TCDF	2.9	q	1.1	0.11	pg/g	1	☼	8290A	Total/NA
Total HxCDD	0.87	J q	5.6	0.19	pg/g	1	☼	8290A	Total/NA
Total HpCDD	11	B	5.6	0.30	pg/g	1	☼	8290A	Total/NA
Total HpCDF	2.1	J q	5.6	0.21	pg/g	1	☼	8290A	Total/NA
Arsenic	2.32	J	3.48	1.61	mg/Kg	5	☼	6010B	Total/NA
Barium	203	B	3.48	0.165	mg/Kg	5	☼	6010B	Total/NA
Beryllium	0.768		0.579	0.0800	mg/Kg	5	☼	6010B	Total/NA
Chromium	44.9	B	1.16	0.216	mg/Kg	5	☼	6010B	Total/NA
Cobalt	23.0		1.16	0.239	mg/Kg	5	☼	6010B	Total/NA
Copper	52.2		2.32	1.11	mg/Kg	5	☼	6010B	Total/NA
Lead	5.42		2.32	0.474	mg/Kg	5	☼	6010B	Total/NA
Nickel	55.1		2.32	0.419	mg/Kg	5	☼	6010B	Total/NA
Vanadium	123		1.16	0.195	mg/Kg	5	☼	6010B	Total/NA
Zinc	71.4		5.79	1.34	mg/Kg	5	☼	6010B	Total/NA

Client Sample ID: JBRA-03-1.5-2.0

Lab Sample ID: 570-142883-9

Analyte	Result	Qualifier	RL	EDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3,4,6,7,8-HpCDD	0.28	J B	7.1	0.13	pg/g	1	☼	8290A	Total/NA
OCDD	1.3	J q B	14	0.22	pg/g	1	☼	8290A	Total/NA
Total HpCDD	0.65	J B	7.1	0.13	pg/g	1	☼	8290A	Total/NA
Barium	253	B	4.42	0.209	mg/Kg	5	☼	6010B	Total/NA
Beryllium	1.29		0.737	0.102	mg/Kg	5	☼	6010B	Total/NA
Chromium	56.7	B	1.47	0.274	mg/Kg	5	☼	6010B	Total/NA
Cobalt	48.6		1.47	0.304	mg/Kg	5	☼	6010B	Total/NA
Copper	84.1		2.95	1.41	mg/Kg	5	☼	6010B	Total/NA
Lead	8.62		2.95	0.603	mg/Kg	5	☼	6010B	Total/NA
Nickel	79.0		2.95	0.533	mg/Kg	5	☼	6010B	Total/NA
Selenium	2.23	J	4.42	1.80	mg/Kg	5	☼	6010B	Total/NA
Vanadium	198		1.47	0.248	mg/Kg	5	☼	6010B	Total/NA
Zinc	69.0		7.37	1.70	mg/Kg	5	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.1	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,1,1-Trichloroethane	ND		1.1	0.26	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,1,2,2-Tetrachloroethane	ND		2.2	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		11	0.52	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,1,2-Trichloroethane	ND		1.1	0.52	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,1-Dichloroethane	ND		1.1	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,1-Dichloroethene	ND		1.1	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,1-Dichloropropene	ND		2.2	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2,3-Trichlorobenzene	ND		2.2	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2,3-Trichloropropane	ND		2.2	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2,4-Trichlorobenzene	ND		2.2	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2,4-Trimethylbenzene	ND		2.2	0.67	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2-Dibromo-3-Chloropropane	ND		11	3.7	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2-Dibromoethane	ND		1.1	0.23	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2-Dichlorobenzene	ND		1.1	0.28	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2-Dichloroethane	ND		1.1	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,2-Dichloropropane	ND		1.1	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,3,5-Trimethylbenzene	ND		2.2	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,3-Dichlorobenzene	ND		1.1	0.28	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,3-Dichloropropane	ND		1.1	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
1,4-Dichlorobenzene	ND		1.1	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
2,2-Dichloropropane	ND		5.6	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
2-Butanone	ND		22	5.1	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
2-Chlorotoluene	ND		1.1	0.28	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
2-Hexanone	ND		22	3.4	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
4-Chlorotoluene	ND		1.1	0.27	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
4-Methyl-2-pentanone	ND		22	3.3	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Acetone	ND		22	11	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Benzene	ND		1.1	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Bromobenzene	ND		1.1	0.23	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Bromochloromethane	ND		2.2	0.50	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Bromodichloromethane	ND		1.1	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Bromoform	ND		5.6	1.5	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Bromomethane	ND		22	7.4	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
cis-1,2-Dichloroethene	ND		1.1	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
cis-1,3-Dichloropropene	ND		1.1	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Carbon disulfide	ND		11	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Carbon tetrachloride	ND		1.1	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Chlorobenzene	ND		1.1	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Chloroethane	ND		2.2	0.83	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Chloroform	ND		1.1	0.66	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Chloromethane	ND		22	1.7	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Dibromochloromethane	ND		2.2	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Dibromomethane	ND		1.1	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Dichlorodifluoromethane	ND		2.2	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Ethylbenzene	ND		1.1	0.23	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Isopropylbenzene	ND		1.1	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Methylene Chloride	ND		11	3.5	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Methyl-t-Butyl Ether (MTBE)	ND		2.2	0.21	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		11	4.4	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
n-Butylbenzene	ND		1.1	0.24	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
N-Propylbenzene	ND		2.2	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
o-Xylene	ND		1.1	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
m,p-Xylene	ND		2.2	0.53	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
p-Isopropyltoluene	ND		1.1	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
sec-Butylbenzene	ND		1.1	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Styrene	ND		1.1	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
trans-1,2-Dichloroethene	ND		1.1	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
trans-1,3-Dichloropropene	ND		2.2	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
tert-Butylbenzene	ND		1.1	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Tetrachloroethene	ND		1.1	0.25	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Toluene	**0.56**	**J**	1.1	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Trichloroethene	ND		2.2	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Trichlorofluoromethane	ND		11	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Vinyl acetate	ND		11	4.4	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1
Vinyl chloride	ND		1.1	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*32 - 179*	*06/26/23 08:44*	*06/26/23 14:31*	*1*
4-Bromofluorobenzene (Surr)	*89*		*80 - 120*	*06/26/23 08:44*	*06/26/23 14:31*	*1*
Dibromofluoromethane (Surr)	*101*		*58 - 147*	*06/26/23 08:44*	*06/26/23 14:31*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*	*06/26/23 08:44*	*06/26/23 14:31*	*1*

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.6	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,1,1-Trichloroethane	ND		1.6	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,1,2,2-Tetrachloroethane	ND		3.1	0.86	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		16	0.73	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,1,2-Trichloroethane	ND		1.6	0.73	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,1-Dichloroethane	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,1-Dichloroethene	ND		1.6	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,1-Dichloropropene	ND		3.1	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2,3-Trichlorobenzene	ND		3.1	0.59	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2,3-Trichloropropane	ND		3.1	0.66	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2,4-Trichlorobenzene	ND		3.1	0.65	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2,4-Trimethylbenzene	ND		3.1	0.94	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2-Dibromo-3-Chloropropane	ND		16	5.2	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2-Dibromoethane	ND		1.6	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2-Dichlorobenzene	ND		1.6	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2-Dichloroethane	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,2-Dichloropropane	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,3,5-Trimethylbenzene	ND		3.1	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,3-Dichlorobenzene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,3-Dichloropropane	ND		1.6	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
1,4-Dichlorobenzene	ND		1.6	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
2,2-Dichloropropane	ND		7.9	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	ND		31	7.1	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
2-Chlorotoluene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
2-Hexanone	ND		31	4.8	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
4-Chlorotoluene	ND		1.6	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
4-Methyl-2-pentanone	ND		31	4.6	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Acetone	ND		31	15	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Benzene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Bromobenzene	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Bromochloromethane	ND		3.1	0.70	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Bromodichloromethane	ND		1.6	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Bromoform	ND		7.9	2.1	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Bromomethane	ND		31	10	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
cis-1,2-Dichloroethene	ND		1.6	0.53	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
cis-1,3-Dichloropropene	ND		1.6	0.55	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Carbon disulfide	ND		16	0.63	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Carbon tetrachloride	ND		1.6	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Chlorobenzene	ND		1.6	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Chloroethane	ND		3.1	1.2	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Chloroform	ND		1.6	0.93	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Chloromethane	ND		31	2.4	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Dibromochloromethane	ND		3.1	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Dibromomethane	ND		1.6	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Dichlorodifluoromethane	ND		3.1	0.71	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Ethylbenzene	ND		1.6	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Isopropylbenzene	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Methylene Chloride	ND		16	4.9	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Methyl-t-Butyl Ether (MTBE)	ND		3.1	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Naphthalene	ND		16	6.2	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
n-Butylbenzene	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
N-Propylbenzene	ND		3.1	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
o-Xylene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
m,p-Xylene	ND		3.1	0.74	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
p-Isopropyltoluene	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
sec-Butylbenzene	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Styrene	ND		1.6	0.50	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
trans-1,2-Dichloroethene	ND		1.6	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
trans-1,3-Dichloropropene	ND		3.1	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
tert-Butylbenzene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Tetrachloroethene	ND		1.6	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Toluene	ND		1.6	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Trichloroethene	ND		3.1	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Trichlorofluoromethane	ND		16	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Vinyl acetate	ND		16	6.2	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1
Vinyl chloride	ND		1.6	0.60	ug/Kg	☼	06/26/23 08:44	06/26/23 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*32 - 179*	*06/26/23 08:44*	*06/26/23 14:52*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*	*06/26/23 08:44*	*06/26/23 14:52*	*1*
Dibromofluoromethane (Surr)	*104*		*58 - 147*	*06/26/23 08:44*	*06/26/23 14:52*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/26/23 08:44*	*06/26/23 14:52*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.5	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,1,1-Trichloroethane	ND		1.5	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,1,2,2-Tetrachloroethane	ND		2.9	0.80	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	0.68	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,1,2-Trichloroethane	ND		1.5	0.68	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,1-Dichloroethane	ND		1.5	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,1-Dichloroethene	ND		1.5	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,1-Dichloropropene	ND		2.9	0.57	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2,3-Trichlorobenzene	ND		2.9	0.55	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2,3-Trichloropropane	ND		2.9	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2,4-Trichlorobenzene	ND		2.9	0.60	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2,4-Trimethylbenzene	ND		2.9	0.88	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2-Dibromo-3-Chloropropane	ND		15	4.9	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2-Dibromoethane	ND		1.5	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2-Dichlorobenzene	ND		1.5	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2-Dichloroethane	ND		1.5	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,2-Dichloropropane	ND		1.5	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,3,5-Trimethylbenzene	ND		2.9	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,3-Dichlorobenzene	ND		1.5	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,3-Dichloropropane	ND		1.5	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
1,4-Dichlorobenzene	ND		1.5	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
2,2-Dichloropropane	ND		7.3	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
2-Butanone	ND		29	6.6	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
2-Chlorotoluene	ND		1.5	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
2-Hexanone	ND		29	4.5	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
4-Chlorotoluene	ND		1.5	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
4-Methyl-2-pentanone	ND		29	4.3	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Acetone	ND		29	14	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Benzene	ND		1.5	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Bromobenzene	ND		1.5	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Bromochloromethane	ND		2.9	0.65	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Bromodichloromethane	ND		1.5	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Bromoform	ND		7.3	1.9	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Bromomethane	ND		29	9.6	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
cis-1,2-Dichloroethene	ND		1.5	0.49	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
cis-1,3-Dichloropropene	ND		1.5	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Carbon disulfide	ND		15	0.59	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Carbon tetrachloride	ND		1.5	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Chlorobenzene	ND		1.5	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Chloroethane	ND		2.9	1.1	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Chloroform	ND		1.5	0.86	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Chloromethane	ND		29	2.3	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Dibromochloromethane	ND		2.9	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Dibromomethane	ND		1.5	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Dichlorodifluoromethane	ND		2.9	0.67	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Ethylbenzene	ND		1.5	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Isopropylbenzene	ND		1.5	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Methylene Chloride	ND		15	4.6	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Methyl-t-Butyl Ether (MTBE)	ND		2.9	0.28	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		15	5.8	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
n-Butylbenzene	ND		1.5	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
N-Propylbenzene	ND		2.9	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
o-Xylene	ND		1.5	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
m,p-Xylene	ND		2.9	0.69	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
p-Isopropyltoluene	ND		1.5	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
sec-Butylbenzene	ND		1.5	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Styrene	ND		1.5	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
trans-1,2-Dichloroethene	ND		1.5	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
trans-1,3-Dichloropropene	ND		2.9	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
tert-Butylbenzene	ND		1.5	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Tetrachloroethene	ND		1.5	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Toluene	ND		1.5	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Trichloroethene	ND		2.9	0.57	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Trichlorofluoromethane	ND		15	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Vinyl acetate	ND		15	5.7	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1
Vinyl chloride	ND		1.5	0.55	ug/Kg	☼	06/26/23 08:44	06/26/23 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*32 - 179*	*06/26/23 08:44*	*06/26/23 15:13*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*	*06/26/23 08:44*	*06/26/23 15:13*	*1*
Dibromofluoromethane (Surr)	*103*		*58 - 147*	*06/26/23 08:44*	*06/26/23 15:13*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/26/23 08:44*	*06/26/23 15:13*	*1*

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.3	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,1,1-Trichloroethane	ND		1.3	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,1,2,2-Tetrachloroethane	ND		2.6	0.72	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		13	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,1,2-Trichloroethane	ND		1.3	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,1-Dichloroethane	ND		1.3	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,1-Dichloroethene	ND		1.3	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,1-Dichloropropene	ND		2.6	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2,3-Trichlorobenzene	ND		2.6	0.49	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2,3-Trichloropropane	ND		2.6	0.55	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2,4-Trichlorobenzene	ND		2.6	0.54	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2,4-Trimethylbenzene	ND		2.6	0.79	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2-Dibromo-3-Chloropropane	ND		13	4.4	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2-Dibromoethane	ND		1.3	0.27	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2-Dichlorobenzene	ND		1.3	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2-Dichloroethane	ND		1.3	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,2-Dichloropropane	ND		1.3	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,3,5-Trimethylbenzene	ND		2.6	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,3-Dichlorobenzene	ND		1.3	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,3-Dichloropropane	ND		1.3	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
1,4-Dichlorobenzene	ND		1.3	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
2,2-Dichloropropane	ND		6.6	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	ND		26	5.9	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
2-Chlorotoluene	ND		1.3	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
2-Hexanone	ND		26	4.0	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
4-Chlorotoluene	ND		1.3	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
4-Methyl-2-pentanone	ND		26	3.8	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Acetone	ND		26	13	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Benzene	ND		1.3	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Bromobenzene	ND		1.3	0.27	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Bromochloromethane	ND		2.6	0.58	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Bromodichloromethane	ND		1.3	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Bromoform	ND		6.6	1.7	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Bromomethane	ND		26	8.6	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
cis-1,2-Dichloroethene	ND		1.3	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
cis-1,3-Dichloropropene	ND		1.3	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Carbon disulfide	ND		13	0.53	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Carbon tetrachloride	ND		1.3	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Chlorobenzene	ND		1.3	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Chloroethane	ND		2.6	0.98	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Chloroform	ND		1.3	0.77	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Chloromethane	ND		26	2.0	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Dibromochloromethane	ND		2.6	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Dibromomethane	ND		1.3	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Dichlorodifluoromethane	ND		2.6	0.60	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Ethylbenzene	ND		1.3	0.27	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Isopropylbenzene	ND		1.3	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Methylene Chloride	ND		13	4.1	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Methyl-t-Butyl Ether (MTBE)	ND		2.6	0.25	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Naphthalene	ND		13	5.2	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
n-Butylbenzene	ND		1.3	0.28	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
N-Propylbenzene	ND		2.6	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
o-Xylene	ND		1.3	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
m,p-Xylene	ND		2.6	0.62	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
p-Isopropyltoluene	ND		1.3	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
sec-Butylbenzene	ND		1.3	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Styrene	ND		1.3	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
trans-1,2-Dichloroethene	ND		1.3	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
trans-1,3-Dichloropropene	ND		2.6	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
tert-Butylbenzene	ND		1.3	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Tetrachloroethene	ND		1.3	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Toluene	ND		1.3	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Trichloroethene	ND		2.6	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Trichlorofluoromethane	ND		13	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Vinyl acetate	ND		13	5.1	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1
Vinyl chloride	ND		1.3	0.50	ug/Kg	☼	06/26/23 08:44	06/26/23 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*32 - 179*	*06/26/23 08:44*	*06/26/23 15:34*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*	*06/26/23 08:44*	*06/26/23 15:34*	*1*
Dibromofluoromethane (Surr)	*105*		*58 - 147*	*06/26/23 08:44*	*06/26/23 15:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*	*06/26/23 08:44*	*06/26/23 15:34*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.6	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,1,1-Trichloroethane	ND		1.6	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,1,2,2-Tetrachloroethane	ND		3.2	0.86	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		16	0.73	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,1,2-Trichloroethane	ND		1.6	0.73	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,1-Dichloroethane	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,1-Dichloroethene	ND		1.6	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,1-Dichloropropene	ND		3.2	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2,3-Trichlorobenzene	ND		3.2	0.59	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2,3-Trichloropropane	ND		3.2	0.66	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2,4-Trichlorobenzene	ND		3.2	0.65	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2,4-Trimethylbenzene	ND		3.2	0.95	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2-Dibromo-3-Chloropropane	ND		16	5.3	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2-Dibromoethane	ND		1.6	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2-Dichlorobenzene	ND		1.6	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2-Dichloroethane	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,2-Dichloropropane	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,3,5-Trimethylbenzene	ND		3.2	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,3-Dichlorobenzene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,3-Dichloropropane	ND		1.6	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
1,4-Dichlorobenzene	ND		1.6	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
2,2-Dichloropropane	ND		7.9	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
2-Butanone	ND		32	7.1	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
2-Chlorotoluene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
2-Hexanone	ND		32	4.8	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
4-Chlorotoluene	ND		1.6	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
4-Methyl-2-pentanone	ND		32	4.6	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Acetone	ND		32	15	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Benzene	ND		1.6	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Bromobenzene	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Bromochloromethane	ND		3.2	0.70	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Bromodichloromethane	ND		1.6	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Bromoform	ND		7.9	2.1	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Bromomethane	ND		32	10	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
cis-1,2-Dichloroethene	ND		1.6	0.53	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
cis-1,3-Dichloropropene	ND		1.6	0.55	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Carbon disulfide	ND		16	0.63	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Carbon tetrachloride	ND		1.6	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Chlorobenzene	ND		1.6	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Chloroethane	ND		3.2	1.2	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Chloroform	ND		1.6	0.93	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Chloromethane	ND		32	2.4	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Dibromochloromethane	ND		3.2	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Dibromomethane	ND		1.6	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Dichlorodifluoromethane	ND		3.2	0.71	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Ethylbenzene	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Isopropylbenzene	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Methylene Chloride	ND		16	4.9	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Methyl-t-Butyl Ether (MTBE)	ND		3.2	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		16	6.2	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
n-Butylbenzene	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
N-Propylbenzene	ND		3.2	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
o-Xylene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
m,p-Xylene	ND		3.2	0.75	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
p-Isopropyltoluene	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
sec-Butylbenzene	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Styrene	ND		1.6	0.50	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
trans-1,2-Dichloroethene	ND		1.6	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
trans-1,3-Dichloropropene	ND		3.2	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
tert-Butylbenzene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Tetrachloroethene	ND		1.6	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Toluene	ND		1.6	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Trichloroethene	ND		3.2	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Trichlorofluoromethane	ND		16	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Vinyl acetate	ND		16	6.2	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1
Vinyl chloride	ND		1.6	0.60	ug/Kg	☼	06/26/23 08:44	06/26/23 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*32 - 179*	*06/26/23 08:44*	*06/26/23 15:56*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*	*06/26/23 08:44*	*06/26/23 15:56*	*1*
Dibromofluoromethane (Surr)	*104*		*58 - 147*	*06/26/23 08:44*	*06/26/23 15:56*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/26/23 08:44*	*06/26/23 15:56*	*1*

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.6	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,1,1-Trichloroethane	ND		1.6	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,1,2,2-Tetrachloroethane	ND		3.2	0.87	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		16	0.74	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,1,2-Trichloroethane	ND		1.6	0.74	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,1-Dichloroethane	ND		1.6	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,1-Dichloroethene	ND		1.6	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,1-Dichloropropene	ND		3.2	0.62	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2,3-Trichlorobenzene	ND		3.2	0.60	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2,3-Trichloropropane	ND		3.2	0.67	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2,4-Trichlorobenzene	ND		3.2	0.65	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2,4-Trimethylbenzene	ND		3.2	0.96	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2-Dibromo-3-Chloropropane	ND		16	5.3	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2-Dibromoethane	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2-Dichlorobenzene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2-Dichloroethane	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,2-Dichloropropane	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,3,5-Trimethylbenzene	ND		3.2	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,3-Dichlorobenzene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,3-Dichloropropane	ND		1.6	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
1,4-Dichlorobenzene	ND		1.6	0.49	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
2,2-Dichloropropane	ND		8.0	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	ND		32	7.2	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
2-Chlorotoluene	ND		1.6	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
2-Hexanone	ND		32	4.9	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
4-Chlorotoluene	ND		1.6	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
4-Methyl-2-pentanone	ND		32	4.6	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Acetone	ND		32	16	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Benzene	ND		1.6	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Bromobenzene	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Bromochloromethane	ND		3.2	0.71	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Bromodichloromethane	ND		1.6	0.52	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Bromoform	ND		8.0	2.1	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Bromomethane	ND		32	10	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
cis-1,2-Dichloroethene	ND		1.6	0.54	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
cis-1,3-Dichloropropene	ND		1.6	0.56	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Carbon disulfide	ND		16	0.64	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Carbon tetrachloride	ND		1.6	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Chlorobenzene	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Chloroethane	ND		3.2	1.2	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Chloroform	ND		1.6	0.94	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Chloromethane	ND		32	2.5	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Dibromochloromethane	ND		3.2	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Dibromomethane	ND		1.6	0.49	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Dichlorodifluoromethane	ND		3.2	0.72	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Ethylbenzene	ND		1.6	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Isopropylbenzene	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Methylene Chloride	ND		16	5.0	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Methyl-t-Butyl Ether (MTBE)	ND		3.2	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Naphthalene	ND		16	6.3	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
n-Butylbenzene	ND		1.6	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
N-Propylbenzene	ND		3.2	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
o-Xylene	ND		1.6	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
m,p-Xylene	ND		3.2	0.76	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
p-Isopropyltoluene	ND		1.6	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
sec-Butylbenzene	ND		1.6	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Styrene	ND		1.6	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
trans-1,2-Dichloroethene	ND		1.6	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
trans-1,3-Dichloropropene	ND		3.2	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
tert-Butylbenzene	ND		1.6	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Tetrachloroethene	ND		1.6	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Toluene	ND		1.6	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Trichloroethene	ND		3.2	0.62	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Trichlorofluoromethane	ND		16	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Vinyl acetate	ND		16	6.2	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1
Vinyl chloride	ND		1.6	0.60	ug/Kg	☼	06/26/23 08:44	06/26/23 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*32 - 179*	*06/26/23 08:44*	*06/26/23 16:17*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*	*06/26/23 08:44*	*06/26/23 16:17*	*1*
Dibromofluoromethane (Surr)	*106*		*58 - 147*	*06/26/23 08:44*	*06/26/23 16:17*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/26/23 08:44*	*06/26/23 16:17*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.5	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,1,1-Trichloroethane	ND		1.5	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,1,2,2-Tetrachloroethane	ND		3.0	0.82	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15	0.69	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,1,2-Trichloroethane	ND		1.5	0.70	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,1-Dichloroethane	ND		1.5	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,1-Dichloroethene	ND		1.5	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,1-Dichloropropene	ND		3.0	0.58	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2,3-Trichlorobenzene	ND		3.0	0.56	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2,3-Trichloropropane	ND		3.0	0.63	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2,4-Trichlorobenzene	ND		3.0	0.62	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2,4-Trimethylbenzene	ND		3.0	0.90	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2-Dibromo-3-Chloropropane	ND		15	5.0	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2-Dibromoethane	ND		1.5	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2-Dichlorobenzene	ND		1.5	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2-Dichloroethane	ND		1.5	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,2-Dichloropropane	ND		1.5	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,3,5-Trimethylbenzene	ND		3.0	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,3-Dichlorobenzene	ND		1.5	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,3-Dichloropropane	ND		1.5	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
1,4-Dichlorobenzene	ND		1.5	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
2,2-Dichloropropane	ND		7.5	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
2-Butanone	ND		30	6.8	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
2-Chlorotoluene	ND		1.5	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
2-Hexanone	ND		30	4.6	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
4-Chlorotoluene	ND		1.5	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
4-Methyl-2-pentanone	ND		30	4.4	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Acetone	ND		30	15	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Benzene	ND		1.5	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Bromobenzene	ND		1.5	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Bromochloromethane	ND		3.0	0.67	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Bromodichloromethane	ND		1.5	0.49	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Bromoform	ND		7.5	2.0	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Bromomethane	ND		30	9.9	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
cis-1,2-Dichloroethene	ND		1.5	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
cis-1,3-Dichloropropene	ND		1.5	0.52	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Carbon disulfide	ND		15	0.60	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Carbon tetrachloride	ND		1.5	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Chlorobenzene	ND		1.5	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Chloroethane	ND		3.0	1.1	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Chloroform	ND		1.5	0.88	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Chloromethane	ND		30	2.3	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Dibromochloromethane	ND		3.0	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Dibromomethane	ND		1.5	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Dichlorodifluoromethane	ND		3.0	0.68	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Ethylbenzene	ND		1.5	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Isopropylbenzene	ND		1.5	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Methylene Chloride	ND		15	4.7	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Methyl-t-Butyl Ether (MTBE)	ND		3.0	0.28	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		15	5.9	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
n-Butylbenzene	ND		1.5	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
N-Propylbenzene	ND		3.0	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
o-Xylene	ND		1.5	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
m,p-Xylene	ND		3.0	0.71	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
p-Isopropyltoluene	ND		1.5	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
sec-Butylbenzene	ND		1.5	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Styrene	ND		1.5	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
trans-1,2-Dichloroethene	ND		1.5	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
trans-1,3-Dichloropropene	ND		3.0	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
tert-Butylbenzene	ND		1.5	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Tetrachloroethene	ND		1.5	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Toluene	ND		1.5	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Trichloroethene	ND		3.0	0.58	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Trichlorofluoromethane	ND		15	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Vinyl acetate	ND		15	5.9	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1
Vinyl chloride	ND		1.5	0.57	ug/Kg	☼	06/26/23 08:44	06/26/23 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*32 - 179*	*06/26/23 08:44*	*06/26/23 16:38*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*	*06/26/23 08:44*	*06/26/23 16:38*	*1*
Dibromofluoromethane (Surr)	*103*		*58 - 147*	*06/26/23 08:44*	*06/26/23 16:38*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/26/23 08:44*	*06/26/23 16:38*	*1*

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.2	0.33	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,1,1-Trichloroethane	ND		1.2	0.27	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,1,2,2-Tetrachloroethane	ND		2.3	0.63	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		12	0.53	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,1,2-Trichloroethane	ND		1.2	0.53	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,1-Dichloroethane	ND		1.2	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,1-Dichloroethene	ND		1.2	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,1-Dichloropropene	ND		2.3	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2,3-Trichlorobenzene	ND		2.3	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2,3-Trichloropropane	ND		2.3	0.48	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2,4-Trichlorobenzene	ND		2.3	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2,4-Trimethylbenzene	ND		2.3	0.69	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2-Dibromo-3-Chloropropane	ND		12	3.8	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2-Dibromoethane	ND		1.2	0.24	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2-Dichlorobenzene	ND		1.2	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2-Dichloroethane	ND		1.2	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,2-Dichloropropane	ND		1.2	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,3,5-Trimethylbenzene	ND		2.3	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,3-Dichlorobenzene	ND		1.2	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,3-Dichloropropane	ND		1.2	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
1,4-Dichlorobenzene	ND		1.2	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
2,2-Dichloropropane	ND		5.8	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	ND		23	5.2	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
2-Chlorotoluene	ND		1.2	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
2-Hexanone	ND		23	3.5	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
4-Chlorotoluene	ND		1.2	0.28	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
4-Methyl-2-pentanone	ND		23	3.4	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Acetone	ND		23	11	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Benzene	ND		1.2	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Bromobenzene	ND		1.2	0.24	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Bromochloromethane	ND		2.3	0.51	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Bromodichloromethane	ND		1.2	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Bromoform	ND		5.8	1.5	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Bromomethane	ND		23	7.6	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
cis-1,2-Dichloroethene	ND		1.2	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
cis-1,3-Dichloropropene	ND		1.2	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Carbon disulfide	ND		12	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Carbon tetrachloride	ND		1.2	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Chlorobenzene	ND		1.2	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Chloroethane	ND		2.3	0.86	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Chloroform	ND		1.2	0.68	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Chloromethane	ND		23	1.8	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Dibromochloromethane	ND		2.3	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Dibromomethane	ND		1.2	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Dichlorodifluoromethane	ND		2.3	0.52	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Ethylbenzene	ND		1.2	0.24	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Isopropylbenzene	ND		1.2	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Methylene Chloride	ND		12	3.6	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Methyl-t-Butyl Ether (MTBE)	ND		2.3	0.22	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Naphthalene	ND		12	4.5	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
n-Butylbenzene	ND		1.2	0.24	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
N-Propylbenzene	ND		2.3	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
o-Xylene	ND		1.2	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
m,p-Xylene	ND		2.3	0.55	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
p-Isopropyltoluene	ND		1.2	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
sec-Butylbenzene	ND		1.2	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Styrene	ND		1.2	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
trans-1,2-Dichloroethene	ND		1.2	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
trans-1,3-Dichloropropene	ND		2.3	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
tert-Butylbenzene	ND		1.2	0.29	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Tetrachloroethene	ND		1.2	0.26	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Toluene	ND		1.2	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Trichloroethene	ND		2.3	0.45	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Trichlorofluoromethane	ND		12	0.31	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Vinyl acetate	ND		12	4.5	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1
Vinyl chloride	ND		1.2	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*32 - 179*	*06/26/23 08:44*	*06/26/23 16:59*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*	*06/26/23 08:44*	*06/26/23 16:59*	*1*
Dibromofluoromethane (Surr)	*104*		*58 - 147*	*06/26/23 08:44*	*06/26/23 16:59*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*	*06/26/23 08:44*	*06/26/23 16:59*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.4	0.42	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,1,1-Trichloroethane	ND		1.4	0.34	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,1,2,2-Tetrachloroethane	ND		2.9	0.79	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		14	0.67	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,1,2-Trichloroethane	ND		1.4	0.67	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,1-Dichloroethane	ND		1.4	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,1-Dichloroethene	ND		1.4	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,1-Dichloropropene	ND		2.9	0.56	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2,3-Trichlorobenzene	ND		2.9	0.54	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2,3-Trichloropropane	ND		2.9	0.61	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2,4-Trichlorobenzene	ND		2.9	0.59	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2,4-Trimethylbenzene	ND		2.9	0.87	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2-Dibromo-3-Chloropropane	ND		14	4.8	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2-Dibromoethane	ND		1.4	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2-Dichlorobenzene	ND		1.4	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2-Dichloroethane	ND		1.4	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,2-Dichloropropane	ND		1.4	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,3,5-Trimethylbenzene	ND		2.9	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,3-Dichlorobenzene	ND		1.4	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,3-Dichloropropane	ND		1.4	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
1,4-Dichlorobenzene	ND		1.4	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
2,2-Dichloropropane	ND		7.2	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
2-Butanone	ND		29	6.5	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
2-Chlorotoluene	ND		1.4	0.36	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
2-Hexanone	ND		29	4.4	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
4-Chlorotoluene	ND		1.4	0.35	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
4-Methyl-2-pentanone	ND		29	4.2	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Acetone	ND		29	14	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Benzene	ND		1.4	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Bromobenzene	ND		1.4	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Bromochloromethane	ND		2.9	0.64	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Bromodichloromethane	ND		1.4	0.47	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Bromoform	ND		7.2	1.9	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Bromomethane	ND		29	9.5	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
cis-1,2-Dichloroethene	ND		1.4	0.49	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
cis-1,3-Dichloropropene	ND		1.4	0.50	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Carbon disulfide	ND		14	0.58	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Carbon tetrachloride	ND		1.4	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Chlorobenzene	ND		1.4	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Chloroethane	ND		2.9	1.1	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Chloroform	ND		1.4	0.85	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Chloromethane	ND		29	2.2	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Dibromochloromethane	ND		2.9	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Dibromomethane	ND		1.4	0.44	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Dichlorodifluoromethane	ND		2.9	0.65	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Ethylbenzene	ND		1.4	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Isopropylbenzene	ND		1.4	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Methylene Chloride	ND		14	4.5	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Methyl-t-Butyl Ether (MTBE)	ND		2.9	0.27	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		14	5.7	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
n-Butylbenzene	ND		1.4	0.30	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
N-Propylbenzene	ND		2.9	0.38	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
o-Xylene	ND		1.4	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
m,p-Xylene	ND		2.9	0.68	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
p-Isopropyltoluene	ND		1.4	0.41	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
sec-Butylbenzene	ND		1.4	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Styrene	ND		1.4	0.46	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
trans-1,2-Dichloroethene	ND		1.4	0.43	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
trans-1,3-Dichloropropene	ND		2.9	0.40	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
tert-Butylbenzene	ND		1.4	0.37	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Tetrachloroethene	ND		1.4	0.32	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Toluene	ND		1.4	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Trichloroethene	ND		2.9	0.56	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Trichlorofluoromethane	ND		14	0.39	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Vinyl acetate	ND		14	5.6	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1
Vinyl chloride	ND		1.4	0.55	ug/Kg	☼	06/26/23 08:44	06/26/23 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*32 - 179*	*06/26/23 08:44*	*06/26/23 17:20*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*	*06/26/23 08:44*	*06/26/23 17:20*	*1*
Dibromofluoromethane (Surr)	*105*		*58 - 147*	*06/26/23 08:44*	*06/26/23 17:20*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*	*06/26/23 08:44*	*06/26/23 17:20*	*1*

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.54	0.096	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
1,2-Dichlorobenzene	ND		0.54	0.080	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
1,3-Dichlorobenzene	ND		0.54	0.075	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
1,4-Dichlorobenzene	ND		0.54	0.077	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
1-Methylnaphthalene	**0.073**	**J**	0.54	0.039	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,4,5-Trichlorophenol	ND		0.54	0.076	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,4,6-Trichlorophenol	ND		0.54	0.085	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,4-Dichlorophenol	ND		0.54	0.11	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,4-Dimethylphenol	ND		0.54	0.049	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,4-Dinitrophenol	ND		2.2	1.7	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,4-Dinitrotoluene	ND		0.54	0.11	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,6-Dichlorophenol	ND		0.54	0.070	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2,6-Dinitrotoluene	ND		0.54	0.063	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2-Chloronaphthalene	ND		0.54	0.061	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2-Chlorophenol	ND		0.54	0.11	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2-Methylnaphthalene	**0.13**	**J**	0.54	0.062	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2-Methylphenol	ND		0.54	0.10	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2-Nitroaniline	ND		0.54	0.070	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
2-Nitrophenol	ND		0.54	0.12	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
3,3'-Dichlorobenzidine	ND		2.7	0.88	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
3 & 4 Methylphenol	ND		1.1	0.23	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
3-Nitroaniline	ND		0.54	0.13	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
4,6-Dinitro-2-methylphenol	ND		2.7	1.1	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
4-Bromophenyl phenyl ether	ND		0.54	0.064	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
4-Chloro-3-methylphenol	ND		0.54	0.091	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
4-Chloroaniline	ND		0.54	0.078	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
4-Chlorophenyl phenyl ether	ND		0.54	0.076	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
4-Nitroaniline	ND		0.54	0.11	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
4-Nitrophenol	ND		0.54	0.18	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Acenaphthene	ND		0.54	0.058	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Acenaphthylene	ND		0.54	0.10	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Aniline	ND		0.54	0.13	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Anthracene	ND		0.54	0.055	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Azobenzene	ND		0.54	0.12	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzidine	ND	*1	5.4	1.5	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzo[a]anthracene	ND		0.54	0.049	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzo[a]pyrene	ND		0.54	0.083	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzo[b]fluoranthene	ND		0.54	0.086	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzo[g,h,i]perylene	ND		0.54	0.090	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzo[k]fluoranthene	ND		0.54	0.10	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzoic acid	ND		2.7	1.7	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Benzyl alcohol	ND		0.54	0.092	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Bis(2-chloroethoxy)methane	ND		0.54	0.067	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Bis(2-chloroethyl)ether	ND		2.7	0.11	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
bis (2-Chloroisopropyl) ether	ND		0.54	0.065	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Bis(2-ethylhexyl) phthalate	ND		0.54	0.27	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Butyl benzyl phthalate	ND		0.54	0.24	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Chrysene	ND		0.54	0.073	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Dibenz(a,h)anthracene	ND		0.54	0.11	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		0.54	0.10	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Diethyl phthalate	ND		0.54	0.066	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Dimethyl phthalate	ND		0.54	0.068	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Di-n-butyl phthalate	ND		0.54	0.079	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Di-n-octyl phthalate	ND		0.54	0.39	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Fluoranthene	ND		0.54	0.063	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Fluorene	ND		0.54	0.072	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Hexachloro-1,3-butadiene	ND		0.54	0.054	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Hexachlorobenzene	ND		0.54	0.099	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Hexachlorocyclopentadiene	ND		1.6	0.41	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Hexachloroethane	ND		0.54	0.12	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Indeno[1,2,3-cd]pyrene	ND		0.54	0.098	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Isophorone	ND		0.54	0.074	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Naphthalene	**0.17**	**J**	0.54	0.062	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Nitrobenzene	ND		2.2	0.099	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
N-Nitrosodimethylamine	ND		0.54	0.083	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
N-Nitrosodi-n-propylamine	ND		0.54	0.072	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
N-Nitrosodiphenylamine	ND		0.54	0.10	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Pentachlorophenol	ND		2.7	1.1	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Phenanthrene	ND		0.54	0.066	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Phenol	ND		0.54	0.10	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Pyrene	ND		0.54	0.081	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1
Pyridine	ND		0.54	0.089	mg/Kg	☼	07/06/23 17:24	07/11/23 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*55*		*10 - 134*	*07/06/23 17:24*	*07/11/23 00:10*	*1*
2-Fluorobiphenyl (Surr)	*53*		*14 - 142*	*07/06/23 17:24*	*07/11/23 00:10*	*1*
2-Fluorophenol (Surr)	*68*		*10 - 123*	*07/06/23 17:24*	*07/11/23 00:10*	*1*
Nitrobenzene-d5 (Surr)	*58*		*10 - 129*	*07/06/23 17:24*	*07/11/23 00:10*	*1*
p-Terphenyl-d14 (Surr)	*31*		*31 - 139*	*07/06/23 17:24*	*07/11/23 00:10*	*1*
Phenol-d6 (Surr)	*67*		*10 - 120*	*07/06/23 17:24*	*07/11/23 00:10*	*1*

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.78	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
1,2-Dichlorobenzene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
1,3-Dichlorobenzene	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
1,4-Dichlorobenzene	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
1-Methylnaphthalene	ND		0.78	0.056	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,4,5-Trichlorophenol	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,4,6-Trichlorophenol	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,4-Dichlorophenol	ND		0.78	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,4-Dimethylphenol	ND		0.78	0.071	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,4-Dinitrophenol	ND		3.1	2.5	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,4-Dinitrotoluene	ND		0.78	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,6-Dichlorophenol	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2,6-Dinitrotoluene	ND		0.78	0.091	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2-Chloronaphthalene	ND		0.78	0.088	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2-Methylnaphthalene	ND		0.78	0.089	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2-Methylphenol	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2-Nitroaniline	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
2-Nitrophenol	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
3,3'-Dichlorobenzidine	ND		3.9	1.3	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
3 & 4 Methylphenol	ND		1.6	0.34	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
3-Nitroaniline	ND		0.78	0.19	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
4,6-Dinitro-2-methylphenol	ND		3.9	1.5	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
4-Bromophenyl phenyl ether	ND		0.78	0.091	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
4-Chloro-3-methylphenol	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
4-Chloroaniline	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
4-Chlorophenyl phenyl ether	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
4-Nitroaniline	ND		0.78	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
4-Nitrophenol	ND		0.78	0.26	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Acenaphthene	ND		0.78	0.084	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Acenaphthylene	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Aniline	ND		0.78	0.18	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Anthracene	ND		0.78	0.079	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Azobenzene	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzidine	ND	*1	7.8	2.2	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzo[a]anthracene	ND		0.78	0.071	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzo[a]pyrene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzo[b]fluoranthene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzo[g,h,i]perylene	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzo[k]fluoranthene	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzoic acid	ND		3.9	2.5	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Benzyl alcohol	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Bis(2-chloroethoxy)methane	ND		0.78	0.096	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Bis(2-chloroethyl)ether	ND		3.9	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
bis (2-Chloroisopropyl) ether	ND		0.78	0.093	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Bis(2-ethylhexyl) phthalate	ND		0.78	0.39	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Butyl benzyl phthalate	ND		0.78	0.34	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Chrysene	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Dibenz(a,h)anthracene	ND		0.78	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Dibenzofuran	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Diethyl phthalate	ND		0.78	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Dimethyl phthalate	ND		0.78	0.098	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Di-n-butyl phthalate	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Di-n-octyl phthalate	ND		0.78	0.56	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Fluoranthene	ND		0.78	0.091	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Fluorene	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Hexachloro-1,3-butadiene	ND		0.78	0.078	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Hexachlorobenzene	ND		0.78	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Hexachlorocyclopentadiene	ND		2.3	0.58	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Hexachloroethane	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Indeno[1,2,3-cd]pyrene	ND		0.78	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Isophorone	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Naphthalene	ND		0.78	0.089	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		3.1	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
N-Nitrosodimethylamine	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
N-Nitrosodi-n-propylamine	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
N-Nitrosodiphenylamine	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Pentachlorophenol	ND		3.9	1.6	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Phenanthrene	ND		0.78	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Phenol	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Pyrene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1
Pyridine	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*70*		*10 - 134*	*07/06/23 17:24*	*07/08/23 05:24*	*1*
2-Fluorobiphenyl (Surr)	*61*		*14 - 142*	*07/06/23 17:24*	*07/08/23 05:24*	*1*
2-Fluorophenol (Surr)	*64*		*10 - 123*	*07/06/23 17:24*	*07/08/23 05:24*	*1*
Nitrobenzene-d5 (Surr)	*62*		*10 - 129*	*07/06/23 17:24*	*07/08/23 05:24*	*1*
p-Terphenyl-d14 (Surr)	*71*		*31 - 139*	*07/06/23 17:24*	*07/08/23 05:24*	*1*
Phenol-d6 (Surr)	*54*		*10 - 120*	*07/06/23 17:24*	*07/08/23 05:24*	*1*

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.72	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
1,2-Dichlorobenzene	ND		0.72	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
1,3-Dichlorobenzene	ND		0.72	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
1,4-Dichlorobenzene	ND		0.72	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
1-Methylnaphthalene	ND		0.72	0.052	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,4,5-Trichlorophenol	ND		0.72	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,4,6-Trichlorophenol	ND		0.72	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,4-Dichlorophenol	ND		0.72	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,4-Dimethylphenol	ND		0.72	0.065	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,4-Dinitrophenol	ND		2.9	2.3	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,4-Dinitrotoluene	ND		0.72	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,6-Dichlorophenol	ND		0.72	0.094	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2,6-Dinitrotoluene	ND		0.72	0.085	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2-Chloronaphthalene	ND		0.72	0.082	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2-Chlorophenol	ND		0.72	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2-Methylnaphthalene	ND		0.72	0.082	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2-Methylphenol	ND		0.72	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2-Nitroaniline	ND		0.72	0.094	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
2-Nitrophenol	ND		0.72	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
3,3'-Dichlorobenzidine	ND		3.6	1.2	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
3 & 4 Methylphenol	ND		1.4	0.31	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
3-Nitroaniline	ND		0.72	0.18	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
4,6-Dinitro-2-methylphenol	ND		3.6	1.4	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
4-Bromophenyl phenyl ether	ND		0.72	0.085	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
4-Chloro-3-methylphenol	ND		0.72	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
4-Chloroaniline	ND		0.72	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
4-Chlorophenyl phenyl ether	ND		0.72	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
4-Nitroaniline	ND		0.72	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		0.72	0.24	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Acenaphthene	ND		0.72	0.078	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Acenaphthylene	ND		0.72	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Aniline	ND		0.72	0.17	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Anthracene	ND		0.72	0.073	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Azobenzene	ND		0.72	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzidine	ND		7.2	2.1	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzo[a]anthracene	ND		0.72	0.066	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzo[a]pyrene	ND		0.72	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzo[b]fluoranthene	ND		0.72	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzo[g,h,i]perylene	ND		0.72	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzo[k]fluoranthene	ND		0.72	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzoic acid	ND		3.6	2.3	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Benzyl alcohol	ND		0.72	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Bis(2-chloroethoxy)methane	ND		0.72	0.089	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Bis(2-chloroethyl)ether	ND		3.6	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
bis (2-Chloroisopropyl) ether	ND		0.72	0.086	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Bis(2-ethylhexyl) phthalate	ND		0.72	0.36	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Butyl benzyl phthalate	ND		0.72	0.32	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Chrysene	ND		0.72	0.097	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Dibenz(a,h)anthracene	ND		0.72	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Dibenzofuran	ND		0.72	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Diethyl phthalate	ND		0.72	0.088	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Dimethyl phthalate	ND		0.72	0.091	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Di-n-butyl phthalate	ND		0.72	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Di-n-octyl phthalate	ND		0.72	0.52	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Fluoranthene	ND		0.72	0.084	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Fluorene	ND		0.72	0.096	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Hexachloro-1,3-butadiene	ND		0.72	0.072	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Hexachlorobenzene	ND		0.72	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Hexachlorocyclopentadiene	ND		2.2	0.54	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Hexachloroethane	ND		0.72	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Indeno[1,2,3-cd]pyrene	ND		0.72	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Isophorone	ND		0.72	0.099	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Naphthalene	ND		0.72	0.083	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Nitrobenzene	ND		2.9	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
N-Nitrosodimethylamine	ND		0.72	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
N-Nitrosodi-n-propylamine	ND		0.72	0.096	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
N-Nitrosodiphenylamine	ND		0.72	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Pentachlorophenol	ND		3.6	1.4	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Phenanthrene	ND		0.72	0.088	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Phenol	ND		0.72	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Pyrene	ND		0.72	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1
Pyridine	ND		0.72	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*54*		*10 - 134*	*06/28/23 15:25*	*07/06/23 01:14*	*1*
2-Fluorobiphenyl (Surr)	*55*		*14 - 142*	*06/28/23 15:25*	*07/06/23 01:14*	*1*
2-Fluorophenol (Surr)	*21*		*10 - 123*	*06/28/23 15:25*	*07/06/23 01:14*	*1*
Nitrobenzene-d5 (Surr)	*38*		*10 - 129*	*06/28/23 15:25*	*07/06/23 01:14*	*1*

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14 (Surr)	*63*		*31 - 139*	*06/28/23 15:25*	*07/06/23 01:14*	*1*
Phenol-d6 (Surr)	*40*		*10 - 120*	*06/28/23 15:25*	*07/06/23 01:14*	*1*

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.67	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
1,2-Dichlorobenzene	ND		0.67	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
1,3-Dichlorobenzene	ND		0.67	0.093	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
1,4-Dichlorobenzene	ND		0.67	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
1-Methylnaphthalene	ND		0.67	0.049	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,4,5-Trichlorophenol	ND		0.67	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,4,6-Trichlorophenol	ND		0.67	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,4-Dichlorophenol	ND		0.67	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,4-Dimethylphenol	ND		0.67	0.061	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,4-Dinitrophenol	ND		2.7	2.1	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,4-Dinitrotoluene	ND		0.67	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,6-Dichlorophenol	ND		0.67	0.087	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2,6-Dinitrotoluene	ND		0.67	0.079	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2-Chloronaphthalene	ND		0.67	0.076	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2-Chlorophenol	ND		0.67	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2-Methylnaphthalene	ND		0.67	0.077	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2-Methylphenol	ND		0.67	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2-Nitroaniline	ND		0.67	0.088	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
2-Nitrophenol	ND		0.67	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
3,3'-Dichlorobenzidine	ND		3.4	1.1	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
3 & 4 Methylphenol	ND		1.3	0.29	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
3-Nitroaniline	ND		0.67	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
4,6-Dinitro-2-methylphenol	ND		3.4	1.3	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
4-Bromophenyl phenyl ether	ND		0.67	0.079	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
4-Chloro-3-methylphenol	ND		0.67	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
4-Chloroaniline	ND		0.67	0.097	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
4-Chlorophenyl phenyl ether	ND		0.67	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
4-Nitroaniline	ND		0.67	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
4-Nitrophenol	ND		0.67	0.23	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Acenaphthene	ND		0.67	0.073	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Acenaphthylene	ND		0.67	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Aniline	ND		0.67	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Anthracene	ND		0.67	0.068	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Azobenzene	ND		0.67	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzidine	ND	F1 *1	6.7	1.9	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzo[a]anthracene	ND		0.67	0.061	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzo[a]pyrene	ND		0.67	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzo[b]fluoranthene	ND		0.67	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzo[g,h,i]perylene	ND		0.67	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzo[k]fluoranthene	ND		0.67	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzoic acid	ND	F1	3.4	2.1	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Benzyl alcohol	ND		0.67	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND		0.67	0.083	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Bis(2-chloroethyl)ether	ND		3.4	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
bis (2-Chloroisopropyl) ether	ND		0.67	0.080	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Bis(2-ethylhexyl) phthalate	ND		0.67	0.34	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Butyl benzyl phthalate	ND		0.67	0.30	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Chrysene	ND		0.67	0.091	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Dibenz(a,h)anthracene	ND		0.67	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Dibenzofuran	ND		0.67	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Diethyl phthalate	ND		0.67	0.082	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Dimethyl phthalate	ND		0.67	0.085	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Di-n-butyl phthalate	ND		0.67	0.098	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Di-n-octyl phthalate	ND		0.67	0.48	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Fluoranthene	ND		0.67	0.079	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Fluorene	ND		0.67	0.090	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Hexachloro-1,3-butadiene	ND		0.67	0.067	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Hexachlorobenzene	ND		0.67	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Hexachlorocyclopentadiene	ND		2.0	0.51	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Hexachloroethane	ND		0.67	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Indeno[1,2,3-cd]pyrene	ND		0.67	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Isophorone	ND		0.67	0.092	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Naphthalene	ND		0.67	0.077	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Nitrobenzene	ND		2.7	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
N-Nitrosodimethylamine	ND		0.67	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
N-Nitrosodi-n-propylamine	ND		0.67	0.090	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
N-Nitrosodiphenylamine	ND		0.67	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Pentachlorophenol	ND		3.4	1.4	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Phenanthrene	ND		0.67	0.082	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Phenol	ND		0.67	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Pyrene	ND		0.67	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1
Pyridine	ND		0.67	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 05:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*73*		*10 - 134*	*07/06/23 17:24*	*07/08/23 05:47*	*1*
2-Fluorobiphenyl (Surr)	*61*		*14 - 142*	*07/06/23 17:24*	*07/08/23 05:47*	*1*
2-Fluorophenol (Surr)	*60*		*10 - 123*	*07/06/23 17:24*	*07/08/23 05:47*	*1*
Nitrobenzene-d5 (Surr)	*59*		*10 - 129*	*07/06/23 17:24*	*07/08/23 05:47*	*1*
p-Terphenyl-d14 (Surr)	*70*		*31 - 139*	*07/06/23 17:24*	*07/08/23 05:47*	*1*
Phenol-d6 (Surr)	*56*		*10 - 120*	*07/06/23 17:24*	*07/08/23 05:47*	*1*

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.79	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
1,2-Dichlorobenzene	ND		0.79	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
1,3-Dichlorobenzene	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
1,4-Dichlorobenzene	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
1-Methylnaphthalene	ND		0.79	0.057	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2,4,5-Trichlorophenol	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2,4,6-Trichlorophenol	ND		0.79	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		0.79	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2,4-Dimethylphenol	ND		0.79	0.071	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2,4-Dinitrophenol	ND		3.2	2.5	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2,4-Dinitrotoluene	ND		0.79	0.17	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2,6-Dichlorophenol	ND		0.79	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2,6-Dinitrotoluene	ND		0.79	0.092	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2-Chloronaphthalene	ND		0.79	0.090	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2-Chlorophenol	ND		0.79	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2-Methylnaphthalene	ND		0.79	0.090	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2-Methylphenol	ND		0.79	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2-Nitroaniline	ND		0.79	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
2-Nitrophenol	ND		0.79	0.17	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
3,3'-Dichlorobenzidine	ND		3.9	1.3	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
3 & 4 Methylphenol	ND		1.6	0.34	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
3-Nitroaniline	ND		0.79	0.19	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
4,6-Dinitro-2-methylphenol	ND		3.9	1.5	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
4-Bromophenyl phenyl ether	ND		0.79	0.093	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
4-Chloro-3-methylphenol	ND		0.79	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
4-Chloroaniline	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
4-Chlorophenyl phenyl ether	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
4-Nitroaniline	ND		0.79	0.17	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
4-Nitrophenol	ND		0.79	0.26	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Acenaphthene	ND		0.79	0.085	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Acenaphthylene	ND		0.79	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Aniline	ND		0.79	0.18	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Anthracene	ND		0.79	0.080	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Azobenzene	ND		0.79	0.17	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzidine	ND		7.9	2.2	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzo[a]anthracene	ND		0.79	0.072	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzo[a]pyrene	ND		0.79	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzo[b]fluoranthene	ND		0.79	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzo[g,h,i]perylene	ND		0.79	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzo[k]fluoranthene	ND		0.79	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzoic acid	ND		3.9	2.5	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Benzyl alcohol	ND		0.79	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Bis(2-chloroethoxy)methane	ND		0.79	0.098	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Bis(2-chloroethyl)ether	ND		3.9	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
bis (2-Chloroisopropyl) ether	ND		0.79	0.094	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Bis(2-ethylhexyl) phthalate	ND		0.79	0.39	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Butyl benzyl phthalate	ND		0.79	0.35	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Chrysene	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Dibenz(a,h)anthracene	ND		0.79	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Dibenzofuran	ND		0.79	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Diethyl phthalate	ND		0.79	0.096	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Dimethyl phthalate	ND		0.79	0.099	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Di-n-butyl phthalate	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Di-n-octyl phthalate	ND		0.79	0.57	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Fluoranthene	ND		0.79	0.092	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Fluorene	ND		0.79	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloro-1,3-butadiene	ND		0.79	0.079	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Hexachlorobenzene	ND		0.79	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Hexachlorocyclopentadiene	ND		2.4	0.59	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Hexachloroethane	ND		0.79	0.17	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Indeno[1,2,3-cd]pyrene	ND		0.79	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Isophorone	ND		0.79	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Naphthalene	ND		0.79	0.091	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Nitrobenzene	ND		3.2	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
N-Nitrosodimethylamine	ND		0.79	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
N-Nitrosodi-n-propylamine	ND		0.79	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
N-Nitrosodiphenylamine	ND		0.79	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Pentachlorophenol	ND		3.9	1.6	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Phenanthrene	ND		0.79	0.096	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Phenol	ND		0.79	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Pyrene	ND		0.79	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1
Pyridine	ND		0.79	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*52*		*10 - 134*	*06/28/23 15:25*	*07/06/23 01:56*	*1*
2-Fluorobiphenyl (Surr)	*59*		*14 - 142*	*06/28/23 15:25*	*07/06/23 01:56*	*1*
2-Fluorophenol (Surr)	*53*		*10 - 123*	*06/28/23 15:25*	*07/06/23 01:56*	*1*
Nitrobenzene-d5 (Surr)	*63*		*10 - 129*	*06/28/23 15:25*	*07/06/23 01:56*	*1*
p-Terphenyl-d14 (Surr)	*58*		*31 - 139*	*06/28/23 15:25*	*07/06/23 01:56*	*1*
Phenol-d6 (Surr)	*51*		*10 - 120*	*06/28/23 15:25*	*07/06/23 01:56*	*1*

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.78	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
1,2-Dichlorobenzene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
1,3-Dichlorobenzene	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
1,4-Dichlorobenzene	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
1-Methylnaphthalene	ND		0.78	0.057	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,4,5-Trichlorophenol	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,4,6-Trichlorophenol	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,4-Dichlorophenol	ND		0.78	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,4-Dimethylphenol	ND		0.78	0.071	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,4-Dinitrophenol	ND		3.1	2.5	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,4-Dinitrotoluene	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,6-Dichlorophenol	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2,6-Dinitrotoluene	ND		0.78	0.092	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2-Chloronaphthalene	ND		0.78	0.089	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2-Chlorophenol	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2-Methylnaphthalene	ND		0.78	0.089	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2-Methylphenol	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2-Nitroaniline	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
2-Nitrophenol	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
3,3'-Dichlorobenzidine	ND		3.9	1.3	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
3 & 4 Methylphenol	ND		1.6	0.34	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		0.78	0.19	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
4,6-Dinitro-2-methylphenol	ND		3.9	1.5	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
4-Bromophenyl phenyl ether	ND		0.78	0.092	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
4-Chloro-3-methylphenol	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
4-Chloroaniline	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
4-Chlorophenyl phenyl ether	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
4-Nitroaniline	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
4-Nitrophenol	ND		0.78	0.26	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Acenaphthene	ND		0.78	0.084	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Acenaphthylene	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Aniline	ND		0.78	0.18	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Anthracene	ND		0.78	0.079	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Azobenzene	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzidine	ND	*1	7.8	2.2	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzo[a]anthracene	ND		0.78	0.071	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzo[a]pyrene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzo[b]fluoranthene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzo[g,h,i]perylene	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzo[k]fluoranthene	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzoic acid	ND		3.9	2.5	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Benzyl alcohol	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Bis(2-chloroethoxy)methane	ND		0.78	0.097	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Bis(2-chloroethyl)ether	ND		3.9	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
bis (2-Chloroisopropyl) ether	ND		0.78	0.093	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Bis(2-ethylhexyl) phthalate	ND		0.78	0.39	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Butyl benzyl phthalate	ND		0.78	0.35	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Chrysene	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Dibenz(a,h)anthracene	ND		0.78	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Dibenzofuran	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Diethyl phthalate	ND		0.78	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Dimethyl phthalate	ND		0.78	0.098	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Di-n-butyl phthalate	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Di-n-octyl phthalate	ND		0.78	0.56	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Fluoranthene	ND		0.78	0.091	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Fluorene	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Hexachloro-1,3-butadiene	ND		0.78	0.078	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Hexachlorobenzene	ND		0.78	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Hexachlorocyclopentadiene	ND		2.3	0.59	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Hexachloroethane	ND		0.78	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Indeno[1,2,3-cd]pyrene	ND		0.78	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Isophorone	ND		0.78	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Naphthalene	ND		0.78	0.090	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Nitrobenzene	ND		3.1	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
N-Nitrosodimethylamine	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
N-Nitrosodi-n-propylamine	ND		0.78	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
N-Nitrosodiphenylamine	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Pentachlorophenol	ND		3.9	1.6	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Phenanthrene	ND		0.78	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Phenol	ND		0.78	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.78	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1
Pyridine	ND		0.78	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*54*		*10 - 134*	*07/06/23 17:24*	*07/08/23 06:09*	*1*
2-Fluorobiphenyl (Surr)	*54*		*14 - 142*	*07/06/23 17:24*	*07/08/23 06:09*	*1*
2-Fluorophenol (Surr)	*47*		*10 - 123*	*07/06/23 17:24*	*07/08/23 06:09*	*1*
Nitrobenzene-d5 (Surr)	*50*		*10 - 129*	*07/06/23 17:24*	*07/08/23 06:09*	*1*
p-Terphenyl-d14 (Surr)	*65*		*31 - 139*	*07/06/23 17:24*	*07/08/23 06:09*	*1*
Phenol-d6 (Surr)	*46*		*10 - 120*	*07/06/23 17:24*	*07/08/23 06:09*	*1*

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.73	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
1,2-Dichlorobenzene	ND		0.73	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
1,3-Dichlorobenzene	ND		0.73	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
1,4-Dichlorobenzene	ND		0.73	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
1-Methylnaphthalene	ND		0.73	0.053	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,4,5-Trichlorophenol	ND		0.73	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,4,6-Trichlorophenol	ND		0.73	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,4-Dichlorophenol	ND		0.73	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,4-Dimethylphenol	ND		0.73	0.066	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,4-Dinitrophenol	ND		2.9	2.3	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,4-Dinitrotoluene	ND		0.73	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,6-Dichlorophenol	ND		0.73	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2,6-Dinitrotoluene	ND		0.73	0.086	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2-Chloronaphthalene	ND		0.73	0.083	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2-Chlorophenol	ND		0.73	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2-Methylnaphthalene	ND		0.73	0.083	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2-Methylphenol	ND		0.73	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2-Nitroaniline	ND		0.73	0.095	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
2-Nitrophenol	ND		0.73	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
3,3'-Dichlorobenzidine	ND		3.7	1.2	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
3 & 4 Methylphenol	ND		1.5	0.32	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
3-Nitroaniline	ND		0.73	0.18	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
4,6-Dinitro-2-methylphenol	ND		3.7	1.4	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
4-Bromophenyl phenyl ether	ND		0.73	0.086	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
4-Chloro-3-methylphenol	ND		0.73	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
4-Chloroaniline	ND		0.73	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
4-Chlorophenyl phenyl ether	ND		0.73	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
4-Nitroaniline	ND		0.73	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
4-Nitrophenol	ND		0.73	0.24	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Acenaphthene	ND		0.73	0.079	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Acenaphthylene	ND		0.73	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Aniline	ND		0.73	0.17	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Anthracene	ND		0.73	0.074	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Azobenzene	ND		0.73	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Benzidine	ND	*1	7.3	2.1	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.73	0.067	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Benzo[a]pyrene	ND		0.73	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Benzo[b]fluoranthene	ND		0.73	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Benzo[g,h,i]perylene	ND		0.73	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Benzo[k]fluoranthene	ND		0.73	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Benzoic acid	ND		3.7	2.3	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Benzyl alcohol	ND		0.73	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Bis(2-chloroethoxy)methane	ND		0.73	0.090	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Bis(2-chloroethyl)ether	ND		3.7	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
bis (2-Chloroisopropyl) ether	ND		0.73	0.087	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Bis(2-ethylhexyl) phthalate	ND		0.73	0.37	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Butyl benzyl phthalate	ND		0.73	0.32	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Chrysene	ND		0.73	0.099	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Dibenz(a,h)anthracene	ND		0.73	0.15	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Dibenzofuran	ND		0.73	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Diethyl phthalate	ND		0.73	0.089	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Dimethyl phthalate	ND		0.73	0.092	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Di-n-butyl phthalate	ND		0.73	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Di-n-octyl phthalate	ND		0.73	0.52	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Fluoranthene	ND		0.73	0.085	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Fluorene	ND		0.73	0.097	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Hexachloro-1,3-butadiene	ND		0.73	0.073	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Hexachlorobenzene	ND		0.73	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Hexachlorocyclopentadiene	ND		2.2	0.55	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Hexachloroethane	ND		0.73	0.16	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Indeno[1,2,3-cd]pyrene	ND		0.73	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Isophorone	ND		0.73	0.10	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Naphthalene	ND		0.73	0.084	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Nitrobenzene	ND		2.9	0.13	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
N-Nitrosodimethylamine	ND		0.73	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
N-Nitrosodi-n-propylamine	ND		0.73	0.097	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
N-Nitrosodiphenylamine	ND		0.73	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Pentachlorophenol	ND		3.7	1.5	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Phenanthrene	ND		0.73	0.089	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Phenol	ND		0.73	0.14	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Pyrene	ND		0.73	0.11	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1
Pyridine	ND		0.73	0.12	mg/Kg	☼	07/06/23 17:24	07/08/23 06:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*71*		*10 - 134*	*07/06/23 17:24*	*07/08/23 06:31*	*1*
2-Fluorobiphenyl (Surr)	*68*		*14 - 142*	*07/06/23 17:24*	*07/08/23 06:31*	*1*
2-Fluorophenol (Surr)	*61*		*10 - 123*	*07/06/23 17:24*	*07/08/23 06:31*	*1*
Nitrobenzene-d5 (Surr)	*69*		*10 - 129*	*07/06/23 17:24*	*07/08/23 06:31*	*1*
p-Terphenyl-d14 (Surr)	*72*		*31 - 139*	*07/06/23 17:24*	*07/08/23 06:31*	*1*
Phenol-d6 (Surr)	*55*		*10 - 120*	*07/06/23 17:24*	*07/08/23 06:31*	*1*

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.58	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
1,2-Dichlorobenzene	ND		0.58	0.086	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
1,3-Dichlorobenzene	ND		0.58	0.080	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
1,4-Dichlorobenzene	ND		0.58	0.082	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
1-Methylnaphthalene	ND		0.58	0.042	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,4,5-Trichlorophenol	ND		0.58	0.082	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,4,6-Trichlorophenol	ND		0.58	0.091	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,4-Dichlorophenol	ND		0.58	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,4-Dimethylphenol	ND		0.58	0.053	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,4-Dinitrophenol	ND		2.3	1.8	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,4-Dinitrotoluene	ND		0.58	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,6-Dichlorophenol	ND		0.58	0.075	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2,6-Dinitrotoluene	ND		0.58	0.068	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2-Chloronaphthalene	ND		0.58	0.066	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2-Chlorophenol	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2-Methylnaphthalene	ND		0.58	0.066	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2-Methylphenol	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2-Nitroaniline	ND		0.58	0.075	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
2-Nitrophenol	ND		0.58	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
3,3'-Dichlorobenzidine	ND		2.9	0.94	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
3 & 4 Methylphenol	ND		1.2	0.25	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
3-Nitroaniline	ND		0.58	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
4,6-Dinitro-2-methylphenol	ND		2.9	1.1	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
4-Bromophenyl phenyl ether	ND		0.58	0.068	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
4-Chloro-3-methylphenol	ND		0.58	0.098	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
4-Chloroaniline	ND		0.58	0.084	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
4-Chlorophenyl phenyl ether	ND		0.58	0.082	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
4-Nitroaniline	ND		0.58	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
4-Nitrophenol	ND		0.58	0.19	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Acenaphthene	ND		0.58	0.062	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Acenaphthylene	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Aniline	ND		0.58	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Anthracene	ND		0.58	0.059	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Azobenzene	ND		0.58	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzidine	ND		5.8	1.7	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzo[a]anthracene	ND		0.58	0.053	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzo[a]pyrene	ND		0.58	0.089	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzo[b]fluoranthene	ND		0.58	0.092	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzo[g,h,i]perylene	ND		0.58	0.097	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzo[k]fluoranthene	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzoic acid	ND		2.9	1.8	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Benzyl alcohol	ND		0.58	0.099	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Bis(2-chloroethoxy)methane	ND		0.58	0.072	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Bis(2-chloroethyl)ether	ND		2.9	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
bis (2-Chloroisopropyl) ether	ND		0.58	0.069	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Bis(2-ethylhexyl) phthalate	ND		0.58	0.29	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Butyl benzyl phthalate	ND		0.58	0.26	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Chrysene	ND		0.58	0.078	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Dibenz(a,h)anthracene	ND		0.58	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Diethyl phthalate	ND		0.58	0.071	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Dimethyl phthalate	ND		0.58	0.073	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Di-n-butyl phthalate	ND		0.58	0.085	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Di-n-octyl phthalate	ND		0.58	0.42	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Fluoranthene	ND		0.58	0.068	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Fluorene	ND		0.58	0.077	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Hexachloro-1,3-butadiene	ND		0.58	0.058	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Hexachlorobenzene	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Hexachlorocyclopentadiene	ND		1.7	0.44	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Hexachloroethane	ND		0.58	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Indeno[1,2,3-cd]pyrene	ND		0.58	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Isophorone	ND		0.58	0.079	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Naphthalene	ND		0.58	0.067	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Nitrobenzene	ND		2.3	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
N-Nitrosodimethylamine	ND		0.58	0.089	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
N-Nitrosodi-n-propylamine	ND		0.58	0.077	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
N-Nitrosodiphenylamine	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Pentachlorophenol	ND		2.9	1.2	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Phenanthrene	ND		0.58	0.071	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Phenol	ND		0.58	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Pyrene	ND		0.58	0.087	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1
Pyridine	ND		0.58	0.095	mg/Kg	☼	06/28/23 15:25	07/06/23 02:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*55*		*10 - 134*	*06/28/23 15:25*	*07/06/23 02:59*	*1*
2-Fluorobiphenyl (Surr)	*62*		*14 - 142*	*06/28/23 15:25*	*07/06/23 02:59*	*1*
2-Fluorophenol (Surr)	*65*		*10 - 123*	*06/28/23 15:25*	*07/06/23 02:59*	*1*
Nitrobenzene-d5 (Surr)	*71*		*10 - 129*	*06/28/23 15:25*	*07/06/23 02:59*	*1*
p-Terphenyl-d14 (Surr)	*54*		*31 - 139*	*06/28/23 15:25*	*07/06/23 02:59*	*1*
Phenol-d6 (Surr)	*65*		*10 - 120*	*06/28/23 15:25*	*07/06/23 02:59*	*1*

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.74	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
1,2-Dichlorobenzene	ND		0.74	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
1,3-Dichlorobenzene	ND		0.74	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
1,4-Dichlorobenzene	ND		0.74	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
1-Methylnaphthalene	ND		0.74	0.054	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,4,5-Trichlorophenol	ND		0.74	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,4,6-Trichlorophenol	ND		0.74	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,4-Dichlorophenol	ND		0.74	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,4-Dimethylphenol	ND		0.74	0.067	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,4-Dinitrophenol	ND		3.0	2.4	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,4-Dinitrotoluene	ND		0.74	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,6-Dichlorophenol	ND		0.74	0.096	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2,6-Dinitrotoluene	ND		0.74	0.087	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2-Chloronaphthalene	ND		0.74	0.084	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		0.74	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2-Methylnaphthalene	ND		0.74	0.084	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2-Methylphenol	ND		0.74	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2-Nitroaniline	ND		0.74	0.096	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
2-Nitrophenol	ND		0.74	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
3,3'-Dichlorobenzidine	ND		3.7	1.2	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
3 & 4 Methylphenol	ND		1.5	0.32	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
3-Nitroaniline	ND		0.74	0.18	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
4,6-Dinitro-2-methylphenol	ND		3.7	1.4	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
4-Bromophenyl phenyl ether	ND		0.74	0.087	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
4-Chloro-3-methylphenol	ND		0.74	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
4-Chloroaniline	ND		0.74	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
4-Chlorophenyl phenyl ether	ND		0.74	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
4-Nitroaniline	ND		0.74	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
4-Nitrophenol	ND		0.74	0.25	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Acenaphthene	ND		0.74	0.080	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Acenaphthylene	ND		0.74	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Aniline	ND		0.74	0.17	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Anthracene	ND		0.74	0.075	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Azobenzene	ND		0.74	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzidine	ND		7.4	2.1	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzo[a]anthracene	ND		0.74	0.068	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzo[a]pyrene	ND		0.74	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzo[b]fluoranthene	ND		0.74	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzo[g,h,i]perylene	ND		0.74	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzo[k]fluoranthene	ND		0.74	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzoic acid	ND		3.7	2.3	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Benzyl alcohol	ND		0.74	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Bis(2-chloroethoxy)methane	ND		0.74	0.092	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Bis(2-chloroethyl)ether	ND		3.7	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
bis (2-Chloroisopropyl) ether	ND		0.74	0.088	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Bis(2-ethylhexyl) phthalate	ND		0.74	0.37	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Butyl benzyl phthalate	ND		0.74	0.33	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Chrysene	ND		0.74	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Dibenz(a,h)anthracene	ND		0.74	0.15	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Dibenzofuran	ND		0.74	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Diethyl phthalate	ND		0.74	0.090	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Dimethyl phthalate	ND		0.74	0.093	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Di-n-butyl phthalate	ND		0.74	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Di-n-octyl phthalate	ND		0.74	0.53	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Fluoranthene	ND		0.74	0.086	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Fluorene	ND		0.74	0.098	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Hexachloro-1,3-butadiene	ND		0.74	0.074	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Hexachlorobenzene	ND		0.74	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Hexachlorocyclopentadiene	ND		2.2	0.56	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Hexachloroethane	ND		0.74	0.16	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Indeno[1,2,3-cd]pyrene	ND		0.74	0.13	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Isophorone	ND		0.74	0.10	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Naphthalene	ND		0.74	0.085	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1

Method: SW846 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		3.0	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
N-Nitrosodimethylamine	ND		0.74	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
N-Nitrosodi-n-propylamine	ND		0.74	0.099	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
N-Nitrosodiphenylamine	ND		0.74	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Pentachlorophenol	ND		3.7	1.5	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Phenanthrene	ND		0.74	0.090	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Phenol	ND		0.74	0.14	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Pyrene	ND		0.74	0.11	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1
Pyridine	ND		0.74	0.12	mg/Kg	☼	06/28/23 15:25	07/06/23 03:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*50*		*10 - 134*	*06/28/23 15:25*	*07/06/23 03:20*	*1*
2-Fluorobiphenyl (Surr)	*58*		*14 - 142*	*06/28/23 15:25*	*07/06/23 03:20*	*1*
2-Fluorophenol (Surr)	*58*		*10 - 123*	*06/28/23 15:25*	*07/06/23 03:20*	*1*
Nitrobenzene-d5 (Surr)	*63*		*10 - 129*	*06/28/23 15:25*	*07/06/23 03:20*	*1*
p-Terphenyl-d14 (Surr)	*56*		*31 - 139*	*06/28/23 15:25*	*07/06/23 03:20*	*1*
Phenol-d6 (Surr)	*57*		*10 - 120*	*06/28/23 15:25*	*07/06/23 03:20*	*1*

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS)

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	1.9	q	1.1	0.24	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,7,8-PeCDD	1.6	J	5.3	0.22	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,7,8-PeCDF	8.4		5.3	0.31	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
2,3,4,7,8-PeCDF	9.3		5.3	0.35	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,4,7,8-HxCDD	1.0	J	5.3	0.15	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,6,7,8-HxCDD	1.2	J	5.3	0.16	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,7,8,9-HxCDD	1.7	J	5.3	0.15	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,4,7,8-HxCDF	5.5		5.3	0.28	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,6,7,8-HxCDF	3.7	J	5.3	0.28	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,7,8,9-HxCDF	ND		5.3	0.31	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
2,3,4,6,7,8-HxCDF	3.4	J	5.3	0.27	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,4,6,7,8-HpCDD	5.7	B	5.3	0.14	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,4,6,7,8-HpCDF	7.3		5.3	0.26	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
1,2,3,4,7,8,9-HpCDF	0.61	J	5.3	0.27	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
OCDD	16	B	11	0.20	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
OCDF	2.5	J B	11	0.11	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total TCDD	18	q	1.1	0.24	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total TCDF	240	q	1.1	0.89	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total PeCDD	13	q	5.3	0.22	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total PeCDF	61	q	5.3	0.33	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total HxCDD	16		5.3	0.16	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total HxCDF	22		5.3	0.29	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total HpCDD	10	B	5.3	0.14	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1
Total HpCDF	11		5.3	0.27	pg/g	☼	06/28/23 10:01	07/06/23 10:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*66*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-2,3,7,8-TCDF	*72*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,7,8-PeCDD	*68*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,7,8-PeCDF	*74*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-2,3,4,7,8-PeCDF	*75*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,4,7,8-HxCDD	*70*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,6,7,8-HxCDD	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,4,7,8-HxCDF	*76*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,6,7,8-HxCDF	*76*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-2,3,4,6,7,8-HxCDF	*77*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,7,8,9-HxCDF	*78*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*65*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*82*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-OCDD	*68*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*
13C-OCDF	*82*		*40 - 135*	*06/28/23 10:01*	*07/06/23 10:24*	*1*

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.6	0.22	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,7,8-PeCDD	ND		7.8	0.21	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,7,8-PeCDF	0.42	J	7.8	0.17	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,7,8-PeCDF	**0.34**	**J**	7.8	0.19	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,4,7,8-HxCDD	ND		7.8	0.14	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,6,7,8-HxCDD	ND		7.8	0.14	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,7,8,9-HxCDD	ND		7.8	0.14	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,4,7,8-HxCDF	ND		7.8	0.13	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,6,7,8-HxCDF	ND		7.8	0.12	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,7,8,9-HxCDF	ND		7.8	0.15	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
2,3,4,6,7,8-HxCDF	ND		7.8	0.13	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,4,6,7,8-HpCDD	ND		7.8	0.19	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,4,6,7,8-HpCDF	ND		7.8	0.14	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
1,2,3,4,7,8,9-HpCDF	ND		7.8	0.14	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
OCDD	**3.3**	**J B**	16	0.22	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
OCDF	ND		16	0.20	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total TCDD	ND		1.6	0.22	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total TCDF	**5.8**	**q**	1.6	0.19	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total PeCDD	ND		7.8	0.21	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total PeCDF	**0.77**	**J**	7.8	0.18	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total HxCDD	ND		7.8	0.14	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total HxCDF	**0.33**	**J q**	7.8	0.13	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total HpCDD	**0.41**	**J q B**	7.8	0.19	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1
Total HpCDF	ND		7.8	0.14	pg/g	☼	06/28/23 10:01	07/06/23 11:12	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*60*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-2,3,7,8-TCDF	*64*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,7,8-PeCDD	*54*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,7,8-PeCDF	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-2,3,4,7,8-PeCDF	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,4,7,8-HxCDD	*54*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,6,7,8-HxCDD	*55*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,4,7,8-HxCDF	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,6,7,8-HxCDF	*65*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-2,3,4,6,7,8-HxCDF	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,7,8,9-HxCDF	*62*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*52*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*51*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*63*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-OCDD	*53*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*
13C-OCDF	*59*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:12*	*1*

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.4	0.15	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
2,3,7,8-TCDF	**0.92**	**J**	1.4	0.092	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,7,8-PeCDD	ND		6.9	0.12	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,7,8-PeCDF	ND		6.9	0.097	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
2,3,4,7,8-PeCDF	ND		6.9	0.11	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,4,7,8-HxCDD	**0.35**	**J q**	6.9	0.085	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDD	ND		6.9	0.084	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,7,8,9-HxCDD	ND		6.9	0.080	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,4,7,8-HxCDF	ND		6.9	0.065	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,6,7,8-HxCDF	ND		6.9	0.066	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,7,8,9-HxCDF	ND		6.9	0.078	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
2,3,4,6,7,8-HxCDF	ND		6.9	0.062	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,4,6,7,8-HpCDD	**0.29**	**J q B**	6.9	0.076	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,4,6,7,8-HpCDF	**0.36**	**J**	6.9	0.10	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
1,2,3,4,7,8,9-HpCDF	ND		6.9	0.10	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
OCDD	**2.6**	**J q B**	14	0.13	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
OCDF	**0.50**	**J B**	14	0.10	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total TCDD	ND		1.4	0.15	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total TCDF	**3.2**	**q**	1.4	0.092	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total PeCDD	ND		6.9	0.12	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total PeCDF	**0.14**	**J q**	6.9	0.10	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total HxCDD	**0.35**	**J q**	6.9	0.083	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total HxCDF	ND		6.9	0.10	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total HpCDD	**0.66**	**J q B**	6.9	0.076	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1
Total HpCDF	**0.47**	**J q**	6.9	0.10	pg/g	☼	06/28/23 10:01	07/06/23 11:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*75*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-2,3,7,8-TCDF	*85*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,7,8-PeCDD	*73*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,7,8-PeCDF	*81*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-2,3,4,7,8-PeCDF	*85*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,4,7,8-HxCDD	*76*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,6,7,8-HxCDD	*82*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,4,7,8-HxCDF	*88*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,6,7,8-HxCDF	*91*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-2,3,4,6,7,8-HxCDF	*89*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,7,8,9-HxCDF	*86*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*77*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*74*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*89*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-OCDD	*78*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*
13C-OCDF	*90*		*40 - 135*	*06/28/23 10:01*	*07/06/23 11:59*	*1*

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.3	0.20	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
2,3,7,8-TCDF	**0.52**	**J**	1.3	0.11	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,7,8-PeCDD	ND		6.7	0.15	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,7,8-PeCDF	ND		6.7	0.099	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
2,3,4,7,8-PeCDF	ND		6.7	0.11	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,4,7,8-HxCDD	**0.37**	**J**	6.7	0.14	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,6,7,8-HxCDD	ND		6.7	0.15	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,7,8,9-HxCDD	ND		6.7	0.14	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,7,8-HxCDF	ND		6.7	0.11	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,6,7,8-HxCDF	ND		6.7	0.11	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,7,8,9-HxCDF	ND		6.7	0.13	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
2,3,4,6,7,8-HxCDF	ND		6.7	0.097	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,4,6,7,8-HpCDD	**2.0**	**J B**	6.7	0.16	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,4,6,7,8-HpCDF	ND		6.7	0.12	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
1,2,3,4,7,8,9-HpCDF	ND		6.7	0.13	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
OCDD	**11**	**J B**	13	0.26	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
OCDF	**0.57**	**J q B**	13	0.13	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total TCDD	ND		1.3	0.20	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total TCDF	**1.3**	**q**	1.3	0.11	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total PeCDD	ND		6.7	0.15	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total PeCDF	**0.38**	**J**	6.7	0.10	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total HxCDD	**0.37**	**J**	6.7	0.14	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total HxCDF	ND		6.7	0.13	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total HpCDD	**3.8**	**J B**	6.7	0.16	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1
Total HpCDF	ND		6.7	0.13	pg/g	☼	06/28/23 10:01	07/06/23 12:47	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-2,3,7,8-TCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,7,8-PeCDD	*59*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,7,8-PeCDF	*66*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-2,3,4,7,8-PeCDF	*68*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,4,7,8-HxCDD	*62*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,6,7,8-HxCDD	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,4,7,8-HxCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,6,7,8-HxCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-2,3,4,6,7,8-HxCDF	*72*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,7,8,9-HxCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*58*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*56*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-OCDD	*57*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*
13C-OCDF	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 12:47*	*1*

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.5	0.19	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
2,3,7,8-TCDF	ND		1.5	0.085	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,7,8-PeCDD	ND		7.6	0.16	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,7,8-PeCDF	ND		7.6	0.094	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
2,3,4,7,8-PeCDF	ND		7.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,4,7,8-HxCDD	ND		7.6	0.18	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,6,7,8-HxCDD	ND		7.6	0.17	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,7,8,9-HxCDD	ND		7.6	0.16	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,4,7,8-HxCDF	ND		7.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,6,7,8-HxCDF	ND		7.6	0.098	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8,9-HxCDF	ND		7.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
2,3,4,6,7,8-HxCDF	ND		7.6	0.090	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,4,6,7,8-HpCDD	ND		7.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,4,6,7,8-HpCDF	ND		7.6	0.15	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
1,2,3,4,7,8,9-HpCDF	ND		7.6	0.14	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
OCDD	**1.2**	**J q B**	15	0.22	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
OCDF	ND		15	0.24	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total TCDD	ND		1.5	0.19	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total TCDF	ND		1.5	0.085	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total PeCDD	**0.22**	**J q**	7.6	0.16	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total PeCDF	ND		7.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total HxCDD	ND		7.6	0.18	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total HxCDF	ND		7.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total HpCDD	**0.25**	**J B**	7.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1
Total HpCDF	ND		7.6	0.15	pg/g	☼	06/28/23 10:01	07/06/23 13:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*64*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-2,3,7,8-TCDF	*71*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,7,8-PeCDD	*58*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,7,8-PeCDF	*64*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-2,3,4,7,8-PeCDF	*64*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,4,7,8-HxCDD	*55*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,6,7,8-HxCDD	*59*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,4,7,8-HxCDF	*64*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,6,7,8-HxCDF	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-2,3,4,6,7,8-HxCDF	*72*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,7,8,9-HxCDF	*73*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*59*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*54*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*70*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-OCDD	*58*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*
13C-OCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 13:34*	*1*

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.6	0.20	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
2,3,7,8-TCDF	ND		1.6	0.094	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,7,8-PeCDD	ND		8.0	0.16	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,7,8-PeCDF	ND		8.0	0.11	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
2,3,4,7,8-PeCDF	ND		8.0	0.12	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,4,7,8-HxCDD	ND		8.0	0.16	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,6,7,8-HxCDD	ND		8.0	0.17	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,7,8,9-HxCDD	ND		8.0	0.15	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,4,7,8-HxCDF	**0.12**	**J**	8.0	0.11	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,6,7,8-HxCDF	ND		8.0	0.11	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,7,8,9-HxCDF	ND		8.0	0.13	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
2,3,4,6,7,8-HxCDF	ND		8.0	0.10	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	**0.31**	**J B**	8.0	0.13	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,4,6,7,8-HpCDF	**0.20**	**J**	8.0	0.12	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
1,2,3,4,7,8,9-HpCDF	ND		8.0	0.12	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
OCDD	**1.1**	**J q B**	16	0.18	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
OCDF	ND		16	0.17	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total TCDD	ND		1.6	0.20	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total TCDF	ND		1.6	0.094	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total PeCDD	ND		8.0	0.16	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total PeCDF	ND		8.0	0.12	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total HxCDD	ND		8.0	0.17	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total HxCDF	**0.22**	**J**	8.0	0.11	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total HpCDD	**0.31**	**J B**	8.0	0.13	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1
Total HpCDF	**0.20**	**J**	8.0	0.12	pg/g	☼	06/28/23 10:01	07/06/23 14:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*62*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-2,3,7,8-TCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,7,8-PeCDD	*57*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,7,8-PeCDF	*64*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-2,3,4,7,8-PeCDF	*64*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,4,7,8-HxCDD	*58*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,6,7,8-HxCDD	*59*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,4,7,8-HxCDF	*66*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,6,7,8-HxCDF	*68*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-2,3,4,6,7,8-HxCDF	*70*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,7,8,9-HxCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*55*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*52*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*68*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-OCDD	*54*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*
13C-OCDF	*65*		*40 - 135*	*06/28/23 10:01*	*07/06/23 14:22*	*1*

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.5	0.43	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
2,3,7,8-TCDF	ND		1.5	0.16	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,7,8-PeCDD	ND		7.3	0.25	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,7,8-PeCDF	ND		7.3	0.15	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
2,3,4,7,8-PeCDF	ND		7.3	0.20	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,4,7,8-HxCDD	ND		7.3	0.32	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,6,7,8-HxCDD	ND		7.3	0.31	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,7,8,9-HxCDD	ND		7.3	0.30	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,4,7,8-HxCDF	ND		7.3	0.21	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,6,7,8-HxCDF	ND		7.3	0.19	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,7,8,9-HxCDF	ND		7.3	0.21	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
2,3,4,6,7,8-HxCDF	ND		7.3	0.16	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,4,6,7,8-HpCDD	**0.50**	**J B**	7.3	0.13	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
1,2,3,4,6,7,8-HpCDF	ND		7.3	0.32	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,7,8,9-HpCDF	ND		7.3	0.30	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
OCDD	**3.0**	**J B**	15	0.39	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
OCDF	ND		15	0.39	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total TCDD	ND		1.5	0.43	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total TCDF	ND		1.5	0.16	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total PeCDD	ND		7.3	0.25	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total PeCDF	ND		7.3	0.20	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total HxCDD	ND		7.3	0.32	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total HxCDF	ND		7.3	0.21	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total HpCDD	**0.94**	**J B**	7.3	0.13	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1
Total HpCDF	ND		7.3	0.32	pg/g	☼	06/28/23 10:01	07/06/23 18:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*38*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-2,3,7,8-TCDF	*43*		*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,7,8-PeCDD	*33*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,7,8-PeCDF	*38*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-2,3,4,7,8-PeCDF	*35*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,4,7,8-HxCDD	*28*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,6,7,8-HxCDD	*33*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,4,7,8-HxCDF	*32*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,6,7,8-HxCDF	*39*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-2,3,4,6,7,8-HxCDF	*44*		*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,7,8,9-HxCDF	*43*		*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*34*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*30*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*41*		*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-OCDD	*32*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*
13C-OCDF	*39*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 18:29*	*1*

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.1	0.23	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
2,3,7,8-TCDF	**0.72**	**J q**	1.1	0.11	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,7,8-PeCDD	ND		5.6	0.15	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,7,8-PeCDF	ND		5.6	0.086	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
2,3,4,7,8-PeCDF	ND		5.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,4,7,8-HxCDD	ND		5.6	0.19	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,6,7,8-HxCDD	ND		5.6	0.19	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,7,8,9-HxCDD	ND		5.6	0.18	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,4,7,8-HxCDF	ND		5.6	0.15	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,6,7,8-HxCDF	ND		5.6	0.14	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,7,8,9-HxCDF	ND		5.6	0.12	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
2,3,4,6,7,8-HxCDF	ND		5.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,4,6,7,8-HpCDD	**7.2**	**B**	5.6	0.30	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,4,6,7,8-HpCDF	**0.71**	**J q**	5.6	0.24	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
1,2,3,4,7,8,9-HpCDF	ND		5.6	0.18	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
OCDD	**40**	**B**	11	0.47	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
OCDF	**1.7**	**J B**	11	0.27	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total TCDD	ND		1.1	0.23	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total TCDF	**2.9**	**q**	1.1	0.11	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total PeCDD	ND		5.6	0.15	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total PeCDF	ND		5.6	0.11	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total HxCDD	**0.87**	**J q**	5.6	0.19	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total HxCDF	ND		5.6	0.15	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total HpCDD	**11**	**B**	5.6	0.30	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1
Total HpCDF	**2.1**	**J q**	5.6	0.21	pg/g	☼	06/28/23 10:01	07/06/23 19:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*54*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-2,3,7,8-TCDF	*63*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,7,8-PeCDD	*46*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,7,8-PeCDF	*54*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-2,3,4,7,8-PeCDF	*48*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,4,7,8-HxCDD	*36*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,6,7,8-HxCDD	*39*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,4,7,8-HxCDF	*40*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,6,7,8-HxCDF	*43*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-2,3,4,6,7,8-HxCDF	*55*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,7,8,9-HxCDF	*58*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*37*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*28*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*48*		*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-OCDD	*29*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*
13C-OCDF	*38*	**5-*	*40 - 135*	*06/28/23 10:01*	*07/06/23 19:17*	*1*

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.4	0.29	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
2,3,7,8-TCDF	ND		1.4	0.11	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,7,8-PeCDD	ND		7.1	0.20	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,7,8-PeCDF	ND		7.1	0.11	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
2,3,4,7,8-PeCDF	ND		7.1	0.14	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,4,7,8-HxCDD	ND		7.1	0.20	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,6,7,8-HxCDD	ND		7.1	0.19	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,7,8,9-HxCDD	ND		7.1	0.18	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,4,7,8-HxCDF	ND		7.1	0.10	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,6,7,8-HxCDF	ND		7.1	0.098	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,7,8,9-HxCDF	ND		7.1	0.13	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
2,3,4,6,7,8-HxCDF	ND		7.1	0.094	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,4,6,7,8-HpCDD	**0.28**	**J B**	7.1	0.13	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,4,6,7,8-HpCDF	ND		7.1	0.16	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
1,2,3,4,7,8,9-HpCDF	ND		7.1	0.17	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
OCDD	**1.3**	**J q B**	14	0.22	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
OCDF	ND		14	0.17	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
Total TCDD	ND		1.4	0.29	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TCDF	ND		1.4	0.11	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
Total PeCDD	ND		7.1	0.20	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
Total PeCDF	ND		7.1	0.14	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
Total HxCDD	ND		7.1	0.20	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
Total HxCDF	ND		7.1	0.13	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
Total HpCDD	**0.65**	**J B**	7.1	0.13	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1
Total HpCDF	ND		7.1	0.17	pg/g	☼	06/28/23 10:01	07/06/23 20:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*57*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-2,3,7,8-TCDF	*66*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,7,8-PeCDD	*52*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,7,8-PeCDF	*60*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-2,3,4,7,8-PeCDF	*59*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,4,7,8-HxCDD	*49*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,6,7,8-HxCDD	*60*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,4,7,8-HxCDF	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,6,7,8-HxCDF	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-2,3,4,6,7,8-HxCDF	*68*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,7,8,9-HxCDF	*65*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*52*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*52*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-OCDD	*54*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*
13C-OCDF	*63*		*40 - 135*	*06/28/23 10:01*	*07/06/23 20:04*	*1*

Method: SW846 8290A - Dioxins and Furans (HRGC/HRMS) - RA

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	36		1.1	0.17	pg/g	☼	06/28/23 10:01	07/07/23 11:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*64*		*40 - 135*	*06/28/23 10:01*	*07/07/23 11:19*	*1*

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	1.0	J	1.6	0.095	pg/g	☼	06/28/23 10:01	07/07/23 12:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*55*		*40 - 135*	*06/28/23 10:01*	*07/07/23 12:02*	*1*

Method: SW846 6010B - Metals (ICP)

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		11.3	3.22	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Arsenic	**2.21**	**J**	3.38	1.57	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Barium	**151**	**B**	3.38	0.160	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Beryllium	**0.338**	**J**	0.563	0.0777	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Cadmium	ND		0.563	0.185	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Chromium	**22.6**	**B**	1.13	0.210	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Cobalt	**15.6**		1.13	0.232	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Copper	**41.6**		2.25	1.08	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Lead	**3.86**		2.25	0.461	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Molybdenum	ND		2.25	0.580	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Nickel	**49.9**		2.25	0.408	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Selenium	ND		3.38	1.38	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Silver	ND		1.69	0.162	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Thallium	ND		11.3	2.37	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Vanadium	**65.6**		1.13	0.189	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5
Zinc	**490**		5.63	1.30	mg/Kg	☼	07/12/23 08:38	07/13/23 20:57	5

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		15.9	4.56	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Arsenic	ND		4.78	2.22	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Barium	**267**	**B**	4.78	0.226	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Beryllium	**1.32**		0.797	0.110	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Cadmium	ND		0.797	0.261	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Chromium	**56.5**	**B**	1.59	0.297	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Cobalt	**47.6**		1.59	0.328	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Copper	**83.9**		3.19	1.53	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Lead	**7.18**		3.19	0.652	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Molybdenum	ND		3.19	0.821	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Nickel	**79.7**		3.19	0.577	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Selenium	ND		4.78	1.95	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Silver	ND		2.39	0.230	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Thallium	ND		15.9	3.36	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Vanadium	**179**		1.59	0.268	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5
Zinc	**76.9**		7.97	1.84	mg/Kg	☼	07/12/23 08:38	07/13/23 21:00	5

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		14.4	4.11	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Arsenic	ND		4.32	2.00	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Barium	**323**	**B**	4.32	0.204	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Beryllium	**1.28**		0.720	0.0993	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Cadmium	ND		0.720	0.236	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Chromium	**55.1**	**B**	1.44	0.268	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Cobalt	**24.6**		1.44	0.297	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Copper	**82.9**		2.88	1.38	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5

Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**7.32**		2.88	0.589	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Molybdenum	ND		2.88	0.741	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Nickel	**61.6**		2.88	0.521	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Selenium	ND		4.32	1.76	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Silver	ND		2.16	0.207	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Thallium	ND		14.4	3.03	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Vanadium	**156**		1.44	0.242	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5
Zinc	**74.3**		7.20	1.66	mg/Kg	☼	07/12/23 08:38	07/13/23 21:02	5

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		13.6	3.89	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Arsenic	**5.26**		4.09	1.89	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Barium	**194**	**B**	4.09	0.193	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Beryllium	**0.732**		0.681	0.0940	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Cadmium	ND		0.681	0.223	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Chromium	**56.5**	**B**	1.36	0.253	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Cobalt	**24.9**		1.36	0.281	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Copper	**52.7**		2.72	1.30	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Lead	**5.16**		2.72	0.557	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Molybdenum	**0.766**	**J**	2.72	0.701	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Nickel	**65.3**		2.72	0.493	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Selenium	ND		4.09	1.66	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Silver	ND		2.04	0.196	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Thallium	ND		13.6	2.87	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Vanadium	**142**		1.36	0.229	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5
Zinc	**65.2**		6.81	1.57	mg/Kg	☼	07/12/23 08:38	07/13/23 21:05	5

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		16.1	4.59	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Arsenic	**2.31**	**J**	4.82	2.23	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Barium	**280**	**B**	4.82	0.228	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Beryllium	**1.38**		0.803	0.111	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Cadmium	ND		0.803	0.263	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Chromium	**62.2**	**B**	1.61	0.299	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Cobalt	**52.3**		1.61	0.331	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Copper	**90.3**		3.21	1.54	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Lead	**8.11**		3.21	0.657	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Molybdenum	ND		3.21	0.827	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Nickel	**81.8**		3.21	0.581	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Selenium	ND		4.82	1.96	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Silver	ND		2.41	0.231	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Thallium	ND		16.1	3.38	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Vanadium	**209**		1.61	0.270	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5
Zinc	**76.0**		8.03	1.86	mg/Kg	☼	07/12/23 08:38	07/13/23 21:07	5

Method: SW846 6010B - Metals (ICP)

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		15.7	4.47	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Arsenic	ND		4.70	2.18	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Barium	**398**	**B**	4.70	0.222	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Beryllium	**1.59**		0.783	0.108	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Cadmium	ND		0.783	0.257	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Chromium	**60.1**	**B**	1.57	0.291	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Cobalt	**39.9**		1.57	0.323	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Copper	**104**		3.13	1.50	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Lead	**8.67**		3.13	0.641	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Molybdenum	ND		3.13	0.807	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Nickel	**69.2**		3.13	0.567	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Selenium	ND		4.70	1.91	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Silver	ND		2.35	0.226	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Thallium	ND		15.7	3.30	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Vanadium	**219**		1.57	0.263	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5
Zinc	**71.5**		7.83	1.81	mg/Kg	☼	07/12/23 08:38	07/13/23 21:09	5

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		15.1	4.31	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Arsenic	ND		4.53	2.10	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Barium	**378**	**B**	4.53	0.214	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Beryllium	**1.47**		0.755	0.104	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Cadmium	ND		0.755	0.248	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Chromium	**56.1**	**B**	1.51	0.281	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Cobalt	**25.0**		1.51	0.311	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Copper	**115**		3.02	1.45	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Lead	**8.06**		3.02	0.617	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Molybdenum	ND		3.02	0.777	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Nickel	**54.9**		3.02	0.546	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Selenium	ND		4.53	1.84	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Silver	ND		2.26	0.217	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Thallium	ND		15.1	3.18	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Vanadium	**183**		1.51	0.254	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5
Zinc	**73.4**		7.55	1.74	mg/Kg	☼	07/12/23 08:38	07/13/23 21:12	5

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		11.6	3.31	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Arsenic	**2.32**	**J**	3.48	1.61	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Barium	**203**	**B**	3.48	0.165	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Beryllium	**0.768**		0.579	0.0800	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Cadmium	ND		0.579	0.190	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Chromium	**44.9**	**B**	1.16	0.216	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Cobalt	**23.0**		1.16	0.239	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Copper	**52.2**		2.32	1.11	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5

Method: SW846 6010B - Metals (ICP) (Continued)

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.42**		2.32	0.474	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Molybdenum	ND		2.32	0.597	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Nickel	**55.1**		2.32	0.419	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Selenium	ND		3.48	1.42	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Silver	ND		1.74	0.167	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Thallium	ND		11.6	2.44	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Vanadium	**123**		1.16	0.195	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5
Zinc	**71.4**		5.79	1.34	mg/Kg	☼	07/12/23 08:38	07/13/23 21:19	5

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		14.7	4.21	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Arsenic	ND		4.42	2.05	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Barium	**253**	**B**	4.42	0.209	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Beryllium	**1.29**		0.737	0.102	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Cadmium	ND		0.737	0.242	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Chromium	**56.7**	**B**	1.47	0.274	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Cobalt	**48.6**		1.47	0.304	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Copper	**84.1**		2.95	1.41	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Lead	**8.62**		2.95	0.603	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Molybdenum	ND		2.95	0.759	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Nickel	**79.0**		2.95	0.533	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Selenium	**2.23**	**J**	4.42	1.80	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Silver	ND		2.21	0.212	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Thallium	ND		14.7	3.10	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Vanadium	**198**		1.47	0.248	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5
Zinc	**69.0**		7.37	1.70	mg/Kg	☼	07/12/23 08:38	07/13/23 21:21	5

Method: SW846 7471A - Mercury (CVAA)

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0911	0.0350	mg/Kg	☼	07/12/23 19:34	07/13/23 14:24	1

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.128	0.0490	mg/Kg	☼	07/12/23 19:34	07/13/23 14:26	1

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.118	0.0452	mg/Kg	☼	07/12/23 19:34	07/13/23 14:28	1

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.116	0.0445	mg/Kg	☼	07/12/23 19:34	07/13/23 14:34	1

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.127	0.0487	mg/Kg	☼	07/12/23 19:34	07/13/23 14:36	1

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.133	0.0511	mg/Kg	☼	07/12/23 19:34	07/13/23 14:38	1

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.128	0.0490	mg/Kg	☼	07/12/23 19:34	07/13/23 14:40	1

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0928	0.0357	mg/Kg	☼	07/12/23 19:37	07/13/23 14:10	1

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45
Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.123	0.0474	mg/Kg	☼	07/12/23 19:36	07/13/23 15:16	1

General Chemistry

Client Sample ID: JBRA-01-0.0-0.5
Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	10.3	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-01-1.5-2.0
Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	36.0	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-01-3.0-3.5
Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	30.5	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-02-0.0-0.5
Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	26.6	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-02-1.5-2.0
Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	36.8	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-02-3.5-4.0
Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	37.4	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-02-5.5-6.0
Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	33.4	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-03-0.0-0.5
Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	13.7	H	0.1	0.1	%			07/05/23 11:40	1

Client Sample ID: JBRA-03-1.5-2.0
Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	32.5	H	0.1	0.1	%			07/05/23 11:40	1

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(32-179)	(80-120)	(58-147)	(80-120)
570-142883-1	JBRA-01-0.0-0.5	97	89	101	97
570-142883-2	JBRA-01-1.5-2.0	101	99	104	98
570-142883-3	JBRA-01-3.0-3.5	99	99	103	98
570-142883-4	JBRA-02-0.0-0.5	100	98	105	100
570-142883-5	JBRA-02-1.5-2.0	100	97	104	98
570-142883-6	JBRA-02-3.5-4.0	103	97	106	99
570-142883-7	JBRA-02-5.5-6.0	101	98	103	99
570-142883-8	JBRA-03-0.0-0.5	101	97	104	99
570-142883-9	JBRA-03-1.5-2.0	103	97	105	98
LCS 570-340377/1-A	Lab Control Sample	97	100	102	100
LCSD 570-340377/2-A	Lab Control Sample Dup	98	99	101	99
MB 570-340377/3-A	Method Blank	101	95	105	97

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL6
Lab Sample ID	Client Sample ID	(10-134)	(14-142)	(10-123)	(10-129)	(31-139)	(10-120)
570-142883-1	JBRA-01-0.0-0.5	55	53	68	58	31	67
570-142883-2	JBRA-01-1.5-2.0	70	61	64	62	71	54
570-142883-3	JBRA-01-3.0-3.5	54	55	21	38	63	40
570-142883-4	JBRA-02-0.0-0.5	73	61	60	59	70	56
570-142883-4 MS	JBRA-02-0.0-0.5	74	65	61	56	76	55
570-142883-4 MSD	JBRA-02-0.0-0.5	75	64	64	60	79	56
570-142883-5	JBRA-02-1.5-2.0	52	59	53	63	58	51
570-142883-6	JBRA-02-3.5-4.0	54	54	47	50	65	46
570-142883-7	JBRA-02-5.5-6.0	71	68	61	69	72	55
570-142883-8	JBRA-03-0.0-0.5	55	62	65	71	54	65
570-142883-9	JBRA-03-1.5-2.0	50	58	58	63	56	57
LCS 570-341418/2-A	Lab Control Sample	70	68	48	52	83	51
LCS 570-343491/2-A	Lab Control Sample	79	71	68	59	85	62
LCSD 570-341418/3-A	Lab Control Sample Dup	69	68	45	51	81	49
LCSD 570-343491/3-A	Lab Control Sample Dup	83	75	71	65	89	65
MB 570-341418/1-A	Method Blank	69	79	70	75	84	64
MB 570-341418/1-A	Method Blank	62	80	73	88	94	74
MB 570-343491/1-A	Method Blank	92	76	80	75	93	71
MB 570-343491/1-A	Method Blank	66	69	75	79	90	75

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

PHL6 = Phenol-d6 (Surr)

Isotope Dilution Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCDD (40-135)	TCDF (40-135)	PeCDD (40-135)	PeCDF (40-135)	PeCF (40-135)	HxCDD (40-135)	HxDD (40-135)	HxCDF (40-135)
570-142883-1	JBRA-01-0.0-0.5	66	72	68	74	75	70	67	76
570-142883-1 - RA	JBRA-01-0.0-0.5		64						
570-142883-2	JBRA-01-1.5-2.0	60	64	54	61	61	54	55	61
570-142883-2 - RA	JBRA-01-1.5-2.0		55						
570-142883-3	JBRA-01-3.0-3.5	75	85	73	81	85	76	82	88
570-142883-4	JBRA-02-0.0-0.5	61	69	59	66	68	62	61	69
570-142883-5	JBRA-02-1.5-2.0	64	71	58	64	64	55	59	64
570-142883-6	JBRA-02-3.5-4.0	62	69	57	64	64	58	59	66
570-142883-7	JBRA-02-5.5-6.0	38 *5-	43	33 *5-	38 *5-	35 *5-	28 *5-	33 *5-	32 *5-
570-142883-8	JBRA-03-0.0-0.5	54	63	46	54	48	36 *5-	39 *5-	40
570-142883-9	JBRA-03-1.5-2.0	57	66	52	60	59	49	60	61
LCS 320-686569/2-A	Lab Control Sample	66	71	63	70	70	61	66	67
LCSD 320-686569/3-A	Lab Control Sample Dup	63	70	61	68	68	60	62	68
MB 320-686569/1-A	Method Blank	62	67	61	67	67	60	67	69

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HxDF (40-135)	13CHxCF (40-135)	HxCF (40-135)	HpCDD (40-135)	HpCDF (40-135)	HpCDF2 (40-135)	OCDD (40-135)	OCDF (40-135)
570-142883-1	JBRA-01-0.0-0.5	76	77	78	67	65	82	68	82
570-142883-1 - RA	JBRA-01-0.0-0.5								
570-142883-2	JBRA-01-1.5-2.0	65	61	62	52	51	63	53	59
570-142883-2 - RA	JBRA-01-1.5-2.0								
570-142883-3	JBRA-01-3.0-3.5	91	89	86	77	74	89	78	90
570-142883-4	JBRA-02-0.0-0.5	69	72	69	58	56	69	57	67
570-142883-5	JBRA-02-1.5-2.0	67	72	73	59	54	70	58	69
570-142883-6	JBRA-02-3.5-4.0	68	70	69	55	52	68	54	65
570-142883-7	JBRA-02-5.5-6.0	39 *5-	44	43	34 *5-	30 *5-	41	32 *5-	39 *5-
570-142883-8	JBRA-03-0.0-0.5	43	55	58	37 *5-	28 *5-	48	29 *5-	38 *5-
570-142883-9	JBRA-03-1.5-2.0	67	68	65	52	52	61	54	63
LCS 320-686569/2-A	Lab Control Sample	71	77	74	64	62	74	66	76
LCSD 320-686569/3-A	Lab Control Sample Dup	72	74	71	64	60	75	67	75
MB 320-686569/1-A	Method Blank	76	76	71	62	63	73	65	73

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
PeCF = 13C-2,3,4,7,8-PeCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDF = 13C-1,2,3,6,7,8-HxCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD
OCDF = 13C-OCDF

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-340377/3-A
Matrix: Solid
Analysis Batch: 340389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 340377

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.29	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,1,1-Trichloroethane	ND		1.0	0.23	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.54	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	0.46	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,1,2-Trichloroethane	ND		1.0	0.46	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,1-Dichloroethane	ND		1.0	0.28	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,1-Dichloroethene	ND		1.0	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,1-Dichloropropene	ND		2.0	0.39	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2,3-Trichlorobenzene	ND		2.0	0.38	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2,3-Trichloropropane	ND		2.0	0.42	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2,4-Trichlorobenzene	ND		2.0	0.41	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2,4-Trimethylbenzene	ND		2.0	0.60	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2-Dibromo-3-Chloropropane	ND		10	3.3	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2-Dibromoethane	ND		1.0	0.21	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2-Dichloroethane	ND		1.0	0.28	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,2-Dichloropropane	ND		1.0	0.28	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,3,5-Trimethylbenzene	ND		2.0	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,3-Dichloropropane	ND		1.0	0.30	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
1,4-Dichlorobenzene	ND		1.0	0.31	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
2,2-Dichloropropane	ND		5.0	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
2-Butanone	ND		20	4.5	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
2-Chlorotoluene	ND		1.0	0.25	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
2-Hexanone	ND		20	3.1	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
4-Chlorotoluene	ND		1.0	0.24	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
4-Methyl-2-pentanone	ND		20	2.9	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Acetone	ND		20	9.8	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Benzene	ND		1.0	0.26	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Bromobenzene	ND		1.0	0.21	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Bromochloromethane	ND		2.0	0.44	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Bromodichloromethane	ND		1.0	0.33	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Bromoform	ND		5.0	1.3	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Bromomethane	ND		20	6.6	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
cis-1,3-Dichloropropene	ND		1.0	0.35	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Carbon disulfide	ND		10	0.40	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Carbon tetrachloride	ND		1.0	0.30	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Chlorobenzene	ND		1.0	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Chloroethane	ND		2.0	0.74	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Chloroform	ND		1.0	0.59	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Chloromethane	ND		20	1.5	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Dibromochloromethane	ND		2.0	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Dibromomethane	ND		1.0	0.31	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Dichlorodifluoromethane	ND		2.0	0.45	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Ethylbenzene	ND		1.0	0.21	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Isopropylbenzene	ND		1.0	0.28	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Methylene Chloride	ND		10	3.1	ug/Kg		06/26/23 08:44	06/26/23 10:40	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-340377/3-A
Matrix: Solid
Analysis Batch: 340389

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 340377

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.19	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Naphthalene	ND		10	3.9	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
n-Butylbenzene	ND		1.0	0.21	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
N-Propylbenzene	ND		2.0	0.26	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
o-Xylene	ND		1.0	0.26	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
m,p-Xylene	ND		2.0	0.47	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
p-Isopropyltoluene	ND		1.0	0.28	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
sec-Butylbenzene	ND		1.0	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Styrene	ND		1.0	0.32	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
trans-1,3-Dichloropropene	ND		2.0	0.28	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
tert-Butylbenzene	ND		1.0	0.25	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Tetrachloroethene	ND		1.0	0.22	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Toluene	ND		1.0	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Trichloroethene	ND		2.0	0.39	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Trichlorofluoromethane	ND		10	0.27	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Vinyl acetate	ND		10	3.9	ug/Kg		06/26/23 08:44	06/26/23 10:40	1
Vinyl chloride	ND		1.0	0.38	ug/Kg		06/26/23 08:44	06/26/23 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*32 - 179*	*06/26/23 08:44*	*06/26/23 10:40*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*	*06/26/23 08:44*	*06/26/23 10:40*	*1*
Dibromofluoromethane (Surr)	*105*		*58 - 147*	*06/26/23 08:44*	*06/26/23 10:40*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*	*06/26/23 08:44*	*06/26/23 10:40*	*1*

Lab Sample ID: LCS 570-340377/1-A
Matrix: Solid
Analysis Batch: 340389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 340377

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	50.0	53.71		ug/Kg		107	80 - 125
1,1,1-Trichloroethane	50.0	47.17		ug/Kg		94	78 - 130
1,1,2,2-Tetrachloroethane	50.0	54.89		ug/Kg		110	80 - 124
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.54		ug/Kg		97	73 - 130
1,1,2-Trichloroethane	50.0	53.20		ug/Kg		106	80 - 123
1,1-Dichloroethane	50.0	49.09		ug/Kg		98	79 - 124
1,1-Dichloroethene	50.0	47.78		ug/Kg		96	74 - 132
1,1-Dichloropropene	50.0	47.08		ug/Kg		94	78 - 130
1,2,3-Trichlorobenzene	50.0	52.87		ug/Kg		106	80 - 123
1,2,3-Trichloropropane	50.0	47.34		ug/Kg		95	79 - 120
1,2,4-Trichlorobenzene	50.0	52.97		ug/Kg		106	80 - 125
1,2,4-Trimethylbenzene	50.0	48.15		ug/Kg		96	80 - 124
1,2-Dibromo-3-Chloropropane	50.0	50.62		ug/Kg		101	67 - 120
1,2-Dibromoethane	50.0	52.83		ug/Kg		106	80 - 120
1,2-Dichlorobenzene	50.0	50.46		ug/Kg		101	80 - 120
1,2-Dichloroethane	50.0	48.15		ug/Kg		96	77 - 120
1,2-Dichloropropane	50.0	50.00		ug/Kg		100	80 - 126
1,3,5-Trimethylbenzene	50.0	50.54		ug/Kg		101	80 - 121

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-340377/1-A
Matrix: Solid
Analysis Batch: 340389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 340377

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dichlorobenzene	50.0	50.65		ug/Kg		101	80 - 120
1,3-Dichloropropane	50.0	53.58		ug/Kg		107	80 - 120
1,4-Dichlorobenzene	50.0	48.74		ug/Kg		97	80 - 120
2,2-Dichloropropane	50.0	44.13		ug/Kg		88	73 - 135
2-Butanone	50.0	48.03		ug/Kg		96	67 - 136
2-Chlorotoluene	50.0	49.88		ug/Kg		100	80 - 120
2-Hexanone	50.0	44.87		ug/Kg		90	70 - 137
4-Chlorotoluene	50.0	48.27		ug/Kg		97	80 - 121
4-Methyl-2-pentanone	50.0	47.62		ug/Kg		95	74 - 124
Acetone	50.0	46.71		ug/Kg		93	61 - 142
Benzene	50.0	49.91		ug/Kg		100	80 - 120
Bromobenzene	50.0	51.98		ug/Kg		104	80 - 120
Bromochloromethane	50.0	51.53		ug/Kg		103	80 - 120
Bromodichloromethane	50.0	54.67		ug/Kg		109	80 - 125
Bromoform	50.0	59.27		ug/Kg		119	74 - 138
Bromomethane	50.0	58.92		ug/Kg		118	58 - 136
cis-1,2-Dichloroethene	50.0	50.93		ug/Kg		102	80 - 124
cis-1,3-Dichloropropene	50.0	46.56		ug/Kg		93	80 - 123
Carbon disulfide	50.0	47.48		ug/Kg		95	68 - 128
Carbon tetrachloride	50.0	49.35		ug/Kg		99	75 - 140
Chlorobenzene	50.0	51.29		ug/Kg		103	80 - 120
Chloroethane	50.0	50.67		ug/Kg		101	76 - 137
Chloroform	50.0	49.08		ug/Kg		98	80 - 121
Chloromethane	50.0	49.30		ug/Kg		99	74 - 133
Dibromochloromethane	50.0	59.38		ug/Kg		119	80 - 132
Dibromomethane	50.0	52.88		ug/Kg		106	80 - 120
Dichlorodifluoromethane	50.0	50.22		ug/Kg		100	63 - 146
Ethylbenzene	50.0	50.12		ug/Kg		100	80 - 120
Isopropylbenzene	50.0	53.69		ug/Kg		107	80 - 122
Methylene Chloride	50.0	50.28		ug/Kg		101	74 - 120
Methyl-t-Butyl Ether (MTBE)	50.0	46.21		ug/Kg		92	79 - 123
Naphthalene	50.0	49.03		ug/Kg		98	79 - 121
n-Butylbenzene	50.0	49.56		ug/Kg		99	79 - 131
N-Propylbenzene	50.0	52.91		ug/Kg		106	80 - 122
o-Xylene	50.0	49.57		ug/Kg		99	80 - 120
m,p-Xylene	100	106.4		ug/Kg		106	80 - 120
p-Isopropyltoluene	50.0	49.09		ug/Kg		98	80 - 126
sec-Butylbenzene	50.0	49.12		ug/Kg		98	80 - 125
Styrene	50.0	50.82		ug/Kg		102	80 - 120
trans-1,2-Dichloroethene	50.0	49.13		ug/Kg		98	75 - 123
trans-1,3-Dichloropropene	50.0	49.79		ug/Kg		100	80 - 124
tert-Butylbenzene	50.0	48.81		ug/Kg		98	80 - 124
Tetrachloroethene	50.0	51.43		ug/Kg		103	80 - 122
Toluene	50.0	49.77		ug/Kg		100	80 - 120
Trichloroethene	50.0	48.63		ug/Kg		97	80 - 127
Trichlorofluoromethane	50.0	57.69		ug/Kg		115	70 - 144
Vinyl acetate	50.0	43.35		ug/Kg		87	71 - 125
Vinyl chloride	50.0	55.89		ug/Kg		112	79 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-340377/1-A
Matrix: Solid
Analysis Batch: 340389

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 340377

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		32 - 179
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	102		58 - 147
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 570-340377/2-A
Matrix: Solid
Analysis Batch: 340389

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 340377

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane			50.0	54.88		ug/Kg		110	80 - 125	2	20
1,1,1-Trichloroethane			50.0	48.07		ug/Kg		96	78 - 130	2	20
1,1,2,2-Tetrachloroethane			50.0	57.55		ug/Kg		115	80 - 124	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane			50.0	49.32		ug/Kg		99	73 - 130	2	20
1,1,2-Trichloroethane			50.0	54.56		ug/Kg		109	80 - 123	3	20
1,1-Dichloroethane			50.0	49.96		ug/Kg		100	79 - 124	2	20
1,1-Dichloroethene			50.0	48.34		ug/Kg		97	74 - 132	1	20
1,1-Dichloropropene			50.0	48.74		ug/Kg		97	78 - 130	3	20
1,2,3-Trichlorobenzene			50.0	52.99		ug/Kg		106	80 - 123	0	20
1,2,3-Trichloropropane			50.0	48.45		ug/Kg		97	79 - 120	2	20
1,2,4-Trichlorobenzene			50.0	53.80		ug/Kg		108	80 - 125	2	20
1,2,4-Trimethylbenzene			50.0	49.85		ug/Kg		100	80 - 124	3	20
1,2-Dibromo-3-Chloropropane			50.0	54.78		ug/Kg		110	67 - 120	8	20
1,2-Dibromoethane			50.0	54.93		ug/Kg		110	80 - 120	4	20
1,2-Dichlorobenzene			50.0	51.37		ug/Kg		103	80 - 120	2	20
1,2-Dichloroethane			50.0	48.70		ug/Kg		97	77 - 120	1	20
1,2-Dichloropropane			50.0	50.62		ug/Kg		101	80 - 126	1	20
1,3,5-Trimethylbenzene			50.0	51.53		ug/Kg		103	80 - 121	2	20
1,3-Dichlorobenzene			50.0	52.16		ug/Kg		104	80 - 120	3	20
1,3-Dichloropropane			50.0	53.86		ug/Kg		108	80 - 120	1	20
1,4-Dichlorobenzene			50.0	50.55		ug/Kg		101	80 - 120	4	20
2,2-Dichloropropane			50.0	44.59		ug/Kg		89	73 - 135	1	20
2-Butanone			50.0	47.49		ug/Kg		95	67 - 136	1	20
2-Chlorotoluene			50.0	50.70		ug/Kg		101	80 - 120	2	20
2-Hexanone			50.0	45.53		ug/Kg		91	70 - 137	1	20
4-Chlorotoluene			50.0	49.44		ug/Kg		99	80 - 121	2	20
4-Methyl-2-pentanone			50.0	49.26		ug/Kg		99	74 - 124	3	20
Acetone			50.0	43.44		ug/Kg		87	61 - 142	7	23
Benzene			50.0	50.54		ug/Kg		101	80 - 120	1	20
Bromobenzene			50.0	53.66		ug/Kg		107	80 - 120	3	20
Bromochloromethane			50.0	51.77		ug/Kg		104	80 - 120	0	20
Bromodichloromethane			50.0	54.63		ug/Kg		109	80 - 125	0	20
Bromoform			50.0	61.02		ug/Kg		122	74 - 138	3	20
Bromomethane			50.0	59.39		ug/Kg		119	58 - 136	1	20
cis-1,2-Dichloroethene			50.0	51.33		ug/Kg		103	80 - 124	1	20
cis-1,3-Dichloropropene			50.0	46.61		ug/Kg		93	80 - 123	0	20
Carbon disulfide			50.0	48.16		ug/Kg		96	68 - 128	1	20
Carbon tetrachloride			50.0	50.26		ug/Kg		101	75 - 140	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-340377/2-A
Matrix: Solid
Analysis Batch: 340389

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 340377

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorobenzene			50.0	51.85		ug/Kg		104	80 - 120	1	20
Chloroethane			50.0	52.93		ug/Kg		106	76 - 137	4	20
Chloroform			50.0	49.80		ug/Kg		100	80 - 121	1	20
Chloromethane			50.0	49.45		ug/Kg		99	74 - 133	0	20
Dibromochloromethane			50.0	60.29		ug/Kg		121	80 - 132	2	20
Dibromomethane			50.0	53.08		ug/Kg		106	80 - 120	0	20
Dichlorodifluoromethane			50.0	50.88		ug/Kg		102	63 - 146	1	20
Ethylbenzene			50.0	51.27		ug/Kg		103	80 - 120	2	20
Isopropylbenzene			50.0	55.06		ug/Kg		110	80 - 122	3	20
Methylene Chloride			50.0	50.14		ug/Kg		100	74 - 120	0	20
Methyl-t-Butyl Ether (MTBE)			50.0	46.90		ug/Kg		94	79 - 123	1	20
Naphthalene			50.0	50.66		ug/Kg		101	79 - 121	3	20
n-Butylbenzene			50.0	50.95		ug/Kg		102	79 - 131	3	20
N-Propylbenzene			50.0	53.48		ug/Kg		107	80 - 122	1	20
o-Xylene			50.0	50.89		ug/Kg		102	80 - 120	3	20
m,p-Xylene			100	109.5		ug/Kg		109	80 - 120	3	20
p-Isopropyltoluene			50.0	50.69		ug/Kg		101	80 - 126	3	20
sec-Butylbenzene			50.0	51.20		ug/Kg		102	80 - 125	4	20
Styrene			50.0	51.32		ug/Kg		103	80 - 120	1	20
trans-1,2-Dichloroethene			50.0	50.35		ug/Kg		101	75 - 123	2	20
trans-1,3-Dichloropropene			50.0	51.96		ug/Kg		104	80 - 124	4	20
tert-Butylbenzene			50.0	51.31		ug/Kg		103	80 - 124	5	20
Tetrachloroethene			50.0	51.74		ug/Kg		103	80 - 122	1	20
Toluene			50.0	50.18		ug/Kg		100	80 - 120	1	20
Trichloroethene			50.0	48.40		ug/Kg		97	80 - 127	0	20
Trichlorofluoromethane			50.0	58.16		ug/Kg		116	70 - 144	1	20
Vinyl acetate			50.0	41.27		ug/Kg		83	71 - 125	5	20
Vinyl chloride			50.0	55.86		ug/Kg		112	79 - 133	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*32 - 179*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*58 - 147*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-341418/1-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50	0.089	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
1,2-Dichlorobenzene	ND		0.50	0.074	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
1,3-Dichlorobenzene	ND		0.50	0.069	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
1,4-Dichlorobenzene	ND		0.50	0.071	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
1-Methylnaphthalene	ND		0.50	0.036	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2,4,5-Trichlorophenol	ND		0.50	0.070	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2,4,6-Trichlorophenol	ND		0.50	0.078	mg/Kg		06/28/23 15:25	07/03/23 17:03	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-341418/1-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		0.50	0.10	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2,4-Dimethylphenol	ND		0.50	0.045	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2,4-Dinitrophenol	ND		2.0	1.6	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2,4-Dinitrotoluene	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2,6-Dichlorophenol	ND		0.50	0.065	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2,6-Dinitrotoluene	ND		0.50	0.059	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2-Chloronaphthalene	ND		0.50	0.057	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2-Chlorophenol	ND		0.50	0.099	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2-Methylnaphthalene	ND		0.50	0.057	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2-Methylphenol	ND		0.50	0.094	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2-Nitroaniline	ND		0.50	0.065	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
2-Nitrophenol	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
3,3'-Dichlorobenzidine	ND		2.5	0.81	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
3 & 4 Methylphenol	ND		1.0	0.22	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
3-Nitroaniline	ND		0.50	0.12	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
4,6-Dinitro-2-methylphenol	ND		2.5	0.97	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
4-Bromophenyl phenyl ether	ND		0.50	0.059	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
4-Chloro-3-methylphenol	ND		0.50	0.084	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
4-Chloroaniline	ND		0.50	0.072	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
4-Chlorophenyl phenyl ether	ND		0.50	0.070	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
4-Nitroaniline	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
4-Nitrophenol	ND		0.50	0.17	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Acenaphthene	ND		0.50	0.054	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Acenaphthylene	ND		0.50	0.096	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Aniline	ND		0.50	0.12	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Anthracene	ND		0.50	0.051	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Azobenzene	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzidine	ND		5.0	1.4	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzo[a]anthracene	ND		0.50	0.046	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzo[a]pyrene	ND		0.50	0.076	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzo[b]fluoranthene	ND		0.50	0.080	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzo[g,h,i]perylene	ND		0.50	0.083	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzo[k]fluoranthene	ND		0.50	0.094	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzoic acid	ND		2.5	1.6	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Benzyl alcohol	ND		0.50	0.085	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Bis(2-chloroethoxy)methane	ND		0.50	0.062	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Bis(2-chloroethyl)ether	ND		2.5	0.10	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
bis (2-Chloroisopropyl) ether	ND		0.50	0.060	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Bis(2-ethylhexyl) phthalate	ND		0.50	0.25	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Butyl benzyl phthalate	ND		0.50	0.22	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Chrysene	ND		0.50	0.068	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Dibenz(a,h)anthracene	ND		0.50	0.10	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Dibenzofuran	ND		0.50	0.094	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Diethyl phthalate	ND		0.50	0.061	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Dimethyl phthalate	ND		0.50	0.063	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Di-n-butyl phthalate	ND		0.50	0.073	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Di-n-octyl phthalate	ND		0.50	0.36	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Fluoranthene	ND		0.50	0.058	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Fluorene	ND		0.50	0.067	mg/Kg		06/28/23 15:25	07/03/23 17:03	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-341418/1-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloro-1,3-butadiene	ND		0.50	0.050	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Hexachlorobenzene	ND		0.50	0.092	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Hexachlorocyclopentadiene	ND		1.5	0.38	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Hexachloroethane	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Indeno[1,2,3-cd]pyrene	ND		0.50	0.090	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Isophorone	ND		0.50	0.068	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Naphthalene	ND		0.50	0.058	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Nitrobenzene	ND		2.0	0.092	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
N-Nitrosodimethylamine	ND		0.50	0.077	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
N-Nitrosodi-n-propylamine	ND		0.50	0.067	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
N-Nitrosodiphenylamine	ND		0.50	0.095	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Pentachlorophenol	ND		2.5	1.0	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Phenanthrene	ND		0.50	0.061	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Phenol	ND		0.50	0.095	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Pyrene	ND		0.50	0.075	mg/Kg		06/28/23 15:25	07/03/23 17:03	1
Pyridine	ND		0.50	0.082	mg/Kg		06/28/23 15:25	07/03/23 17:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*69*		*10 - 134*	*06/28/23 15:25*	*07/03/23 17:03*	*1*
2-Fluorobiphenyl (Surr)	*79*		*14 - 142*	*06/28/23 15:25*	*07/03/23 17:03*	*1*
2-Fluorophenol (Surr)	*70*		*10 - 123*	*06/28/23 15:25*	*07/03/23 17:03*	*1*
Nitrobenzene-d5 (Surr)	*75*		*10 - 129*	*06/28/23 15:25*	*07/03/23 17:03*	*1*
p-Terphenyl-d14 (Surr)	*84*		*31 - 139*	*06/28/23 15:25*	*07/03/23 17:03*	*1*
Phenol-d6 (Surr)	*64*		*10 - 120*	*06/28/23 15:25*	*07/03/23 17:03*	*1*

Lab Sample ID: MB 570-341418/1-A
Matrix: Solid
Analysis Batch: 343076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50	0.089	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
1,2-Dichlorobenzene	ND		0.50	0.074	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
1,3-Dichlorobenzene	ND		0.50	0.069	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
1,4-Dichlorobenzene	ND		0.50	0.071	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
1-Methylnaphthalene	ND		0.50	0.036	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,4,5-Trichlorophenol	ND		0.50	0.070	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,4,6-Trichlorophenol	ND		0.50	0.078	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,4-Dichlorophenol	ND		0.50	0.10	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,4-Dimethylphenol	ND		0.50	0.045	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,4-Dinitrophenol	ND		2.0	1.6	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,4-Dinitrotoluene	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,6-Dichlorophenol	ND		0.50	0.065	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2,6-Dinitrotoluene	ND		0.50	0.059	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2-Chloronaphthalene	ND		0.50	0.057	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2-Chlorophenol	ND		0.50	0.099	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2-Methylnaphthalene	ND		0.50	0.057	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2-Methylphenol	ND		0.50	0.094	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
2-Nitroaniline	ND		0.50	0.065	mg/Kg		06/28/23 15:25	07/05/23 22:25	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-341418/1-A
Matrix: Solid
Analysis Batch: 343076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
3,3'-Dichlorobenzidine	ND		2.5	0.81	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
3 & 4 Methylphenol	ND		1.0	0.22	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
3-Nitroaniline	ND		0.50	0.12	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
4,6-Dinitro-2-methylphenol	ND		2.5	0.97	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
4-Bromophenyl phenyl ether	ND		0.50	0.059	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
4-Chloro-3-methylphenol	ND		0.50	0.084	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
4-Chloroaniline	ND		0.50	0.072	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
4-Chlorophenyl phenyl ether	ND		0.50	0.070	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
4-Nitroaniline	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
4-Nitrophenol	ND		0.50	0.17	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Acenaphthene	ND		0.50	0.054	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Acenaphthylene	ND		0.50	0.096	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Aniline	ND		0.50	0.12	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Anthracene	ND		0.50	0.051	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Azobenzene	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzidine	ND		5.0	1.4	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzo[a]anthracene	ND		0.50	0.046	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzo[a]pyrene	ND		0.50	0.076	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzo[b]fluoranthene	ND		0.50	0.080	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzo[g,h,i]perylene	ND		0.50	0.083	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzo[k]fluoranthene	ND		0.50	0.094	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzoic acid	ND		2.5	1.6	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Benzyl alcohol	ND		0.50	0.085	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Bis(2-chloroethoxy)methane	ND		0.50	0.062	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Bis(2-chloroethyl)ether	ND		2.5	0.10	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
bis (2-Chloroisopropyl) ether	ND		0.50	0.060	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Bis(2-ethylhexyl) phthalate	ND		0.50	0.25	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Butyl benzyl phthalate	ND		0.50	0.22	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Chrysene	ND		0.50	0.068	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Dibenz(a,h)anthracene	ND		0.50	0.10	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Dibenzofuran	ND		0.50	0.094	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Diethyl phthalate	ND		0.50	0.061	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Dimethyl phthalate	ND		0.50	0.063	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Di-n-butyl phthalate	ND		0.50	0.073	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Di-n-octyl phthalate	ND		0.50	0.36	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Fluoranthene	ND		0.50	0.058	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Fluorene	ND		0.50	0.067	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Hexachloro-1,3-butadiene	ND		0.50	0.050	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Hexachlorobenzene	ND		0.50	0.092	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Hexachlorocyclopentadiene	ND		1.5	0.38	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Hexachloroethane	ND		0.50	0.11	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Indeno[1,2,3-cd]pyrene	ND		0.50	0.090	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Isophorone	ND		0.50	0.068	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Naphthalene	ND		0.50	0.058	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Nitrobenzene	ND		2.0	0.092	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
N-Nitrosodimethylamine	ND		0.50	0.077	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
N-Nitrosodi-n-propylamine	ND		0.50	0.067	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
N-Nitrosodiphenylamine	ND		0.50	0.095	mg/Kg		06/28/23 15:25	07/05/23 22:25	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-341418/1-A
Matrix: Solid
Analysis Batch: 343076

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		2.5	1.0	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Phenanthrene	ND		0.50	0.061	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Phenol	ND		0.50	0.095	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Pyrene	ND		0.50	0.075	mg/Kg		06/28/23 15:25	07/05/23 22:25	1
Pyridine	ND		0.50	0.082	mg/Kg		06/28/23 15:25	07/05/23 22:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*62*		*10 - 134*	*06/28/23 15:25*	*07/05/23 22:25*	*1*
2-Fluorobiphenyl (Surr)	*80*		*14 - 142*	*06/28/23 15:25*	*07/05/23 22:25*	*1*
2-Fluorophenol (Surr)	*73*		*10 - 123*	*06/28/23 15:25*	*07/05/23 22:25*	*1*
Nitrobenzene-d5 (Surr)	*88*		*10 - 129*	*06/28/23 15:25*	*07/05/23 22:25*	*1*
p-Terphenyl-d14 (Surr)	*94*		*31 - 139*	*06/28/23 15:25*	*07/05/23 22:25*	*1*
Phenol-d6 (Surr)	*74*		*10 - 120*	*06/28/23 15:25*	*07/05/23 22:25*	*1*

Lab Sample ID: LCS 570-341418/2-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 341418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	5.00	3.447		mg/Kg		69	24 - 137
1,2-Dichlorobenzene	5.00	2.975		mg/Kg		59	24 - 148
1,3-Dichlorobenzene	5.00	2.792		mg/Kg		56	22 - 144
1,4-Dichlorobenzene	5.00	2.742		mg/Kg		55	24 - 143
1-Methylnaphthalene	5.00	3.657		mg/Kg		73	26 - 143
2,4,5-Trichlorophenol	5.00	3.566		mg/Kg		71	24 - 139
2,4,6-Trichlorophenol	5.00	3.814		mg/Kg		76	26 - 140
2,4-Dichlorophenol	5.00	3.636		mg/Kg		73	24 - 139
2,4-Dimethylphenol	5.00	3.704		mg/Kg		74	23 - 136
2,4-Dinitrophenol	5.00	2.224		mg/Kg		44	10 - 174
2,4-Dinitrotoluene	5.00	4.476		mg/Kg		90	28 - 166
2,6-Dichlorophenol	5.00	3.743		mg/Kg		75	23 - 134
2,6-Dinitrotoluene	5.00	4.481		mg/Kg		90	30 - 157
2-Chloronaphthalene	5.00	3.992		mg/Kg		80	30 - 144
2-Chlorophenol	5.00	2.725		mg/Kg		54	26 - 157
2-Methylnaphthalene	5.00	3.301		mg/Kg		66	23 - 134
2-Methylphenol	5.00	2.974		mg/Kg		59	30 - 161
2-Nitroaniline	5.00	3.440		mg/Kg		69	16 - 142
2-Nitrophenol	5.00	3.255		mg/Kg		65	23 - 142
3,3'-Dichlorobenzidine	5.00	4.415		mg/Kg		88	28 - 143
3 & 4 Methylphenol	10.0	5.411		mg/Kg		54	10 - 120
3-Nitroaniline	5.00	3.904		mg/Kg		78	25 - 138
4,6-Dinitro-2-methylphenol	5.00	2.888		mg/Kg		58	10 - 144
4-Bromophenyl phenyl ether	5.00	4.271		mg/Kg		85	33 - 150
4-Chloro-3-methylphenol	5.00	3.941		mg/Kg		79	23 - 142
4-Chloroaniline	5.00	3.164		mg/Kg		63	12 - 120
4-Chlorophenyl phenyl ether	5.00	4.236		mg/Kg		85	29 - 143
4-Nitroaniline	5.00	4.167		mg/Kg		83	26 - 147
4-Nitrophenol	5.00	3.505		mg/Kg		70	10 - 145

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-341418/2-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 341418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	5.00	4.105		mg/Kg		82	30 - 144
Acenaphthylene	5.00	4.446		mg/Kg		89	28 - 148
Aniline	5.00	1.894		mg/Kg		38	10 - 120
Anthracene	5.00	4.420		mg/Kg		88	30 - 149
Azobenzene	5.00	3.571		mg/Kg		71	14 - 147
Benzidine	5.00	ND		mg/Kg		16	10 - 120
Benzo[a]anthracene	5.00	4.348		mg/Kg		87	27 - 156
Benzo[a]pyrene	5.00	4.512		mg/Kg		90	36 - 157
Benzo[b]fluoranthene	5.00	4.335		mg/Kg		87	35 - 159
Benzo[g,h,i]perylene	5.00	4.455		mg/Kg		89	30 - 156
Benzo[k]fluoranthene	5.00	4.676		mg/Kg		94	35 - 159
Benzoic acid	5.00	ND		mg/Kg		21	10 - 136
Benzyl alcohol	5.00	4.696		mg/Kg		94	18 - 154
Bis(2-chloroethoxy)methane	5.00	2.849		mg/Kg		57	21 - 140
Bis(2-chloroethyl)ether	5.00	2.324	J	mg/Kg		46	22 - 151
bis (2-Chloroisopropyl) ether	5.00	3.829		mg/Kg		77	10 - 179
Bis(2-ethylhexyl) phthalate	5.00	5.398		mg/Kg		108	23 - 166
Butyl benzyl phthalate	5.00	5.155		mg/Kg		103	18 - 170
Chrysene	5.00	4.388		mg/Kg		88	28 - 145
Dibenz(a,h)anthracene	5.00	4.462		mg/Kg		89	32 - 149
Dibenzofuran	5.00	3.965		mg/Kg		79	29 - 143
Diethyl phthalate	5.00	4.670		mg/Kg		93	26 - 151
Dimethyl phthalate	5.00	4.296		mg/Kg		86	27 - 150
Di-n-butyl phthalate	5.00	4.843		mg/Kg		97	27 - 152
Di-n-octyl phthalate	5.00	5.391		mg/Kg		108	40 - 178
Fluoranthene	5.00	4.433		mg/Kg		89	33 - 156
Fluorene	5.00	4.381		mg/Kg		88	27 - 146
Hexachloro-1,3-butadiene	5.00	3.462		mg/Kg		69	22 - 140
Hexachlorobenzene	5.00	4.307		mg/Kg		86	20 - 143
Hexachlorocyclopentadiene	5.00	3.859		mg/Kg		77	10 - 172
Hexachloroethane	5.00	2.771		mg/Kg		55	22 - 144
Indeno[1,2,3-cd]pyrene	5.00	4.181		mg/Kg		84	38 - 157
Isophorone	5.00	3.577		mg/Kg		72	15 - 165
Naphthalene	5.00	3.495		mg/Kg		70	25 - 140
Nitrobenzene	5.00	2.753		mg/Kg		55	17 - 136
N-Nitrosodimethylamine	5.00	1.919		mg/Kg		38	10 - 134
N-Nitrosodi-n-propylamine	5.00	3.152		mg/Kg		63	16 - 158
N-Nitrosodiphenylamine	5.00	4.827		mg/Kg		97	33 - 166
Pentachlorophenol	5.00	3.994		mg/Kg		80	10 - 141
Phenanthrene	5.00	4.266		mg/Kg		85	29 - 144
Phenol	5.00	2.957		mg/Kg		59	19 - 164
Pyrene	5.00	4.476		mg/Kg		90	17 - 156
Pyridine	5.00	1.664		mg/Kg		33	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*70*		*10 - 134*
2-Fluorobiphenyl (Surr)	*68*		*14 - 142*
2-Fluorophenol (Surr)	*48*		*10 - 123*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-341418/2-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 341418

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*52*		*10 - 129*
p-Terphenyl-d14 (Surr)	*83*		*31 - 139*
Phenol-d6 (Surr)	*51*		*10 - 120*

Lab Sample ID: LCSD 570-341418/3-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 341418

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			5.00	3.364		mg/Kg		67	24 - 137	2	30
1,2-Dichlorobenzene			5.00	2.881		mg/Kg		58	24 - 148	3	30
1,3-Dichlorobenzene			5.00	2.664		mg/Kg		53	22 - 144	5	30
1,4-Dichlorobenzene			5.00	2.679		mg/Kg		54	24 - 143	2	30
1-Methylnaphthalene			5.00	3.570		mg/Kg		71	26 - 143	2	24
2,4,5-Trichlorophenol			5.00	3.523		mg/Kg		70	24 - 139	1	21
2,4,6-Trichlorophenol			5.00	3.524		mg/Kg		70	26 - 140	8	23
2,4-Dichlorophenol			5.00	3.627		mg/Kg		73	24 - 139	0	27
2,4-Dimethylphenol			5.00	3.643		mg/Kg		73	23 - 136	2	27
2,4-Dinitrophenol			5.00	1.977	J	mg/Kg		40	10 - 174	12	27
2,4-Dinitrotoluene			5.00	4.524		mg/Kg		90	28 - 166	1	27
2,6-Dichlorophenol			5.00	3.594		mg/Kg		72	23 - 134	4	25
2,6-Dinitrotoluene			5.00	4.286		mg/Kg		86	30 - 157	4	25
2-Chloronaphthalene			5.00	4.036		mg/Kg		81	30 - 144	1	22
2-Chlorophenol			5.00	2.641		mg/Kg		53	26 - 157	3	30
2-Methylnaphthalene			5.00	3.183		mg/Kg		64	23 - 134	4	27
2-Methylphenol			5.00	2.869		mg/Kg		57	30 - 161	4	28
2-Nitroaniline			5.00	3.492		mg/Kg		70	16 - 142	1	30
2-Nitrophenol			5.00	3.275		mg/Kg		66	23 - 142	1	30
3,3'-Dichlorobenzidine			5.00	4.247		mg/Kg		85	28 - 143	4	23
3 & 4 Methylphenol			10.0	5.244		mg/Kg		52	10 - 120	3	30
3-Nitroaniline			5.00	3.694		mg/Kg		74	25 - 138	6	27
4,6-Dinitro-2-methylphenol			5.00	2.788		mg/Kg		56	10 - 144	4	23
4-Bromophenyl phenyl ether			5.00	3.782		mg/Kg		76	33 - 150	12	22
4-Chloro-3-methylphenol			5.00	3.906		mg/Kg		78	23 - 142	1	30
4-Chloroaniline			5.00	3.067		mg/Kg		61	12 - 120	3	29
4-Chlorophenyl phenyl ether			5.00	4.339		mg/Kg		87	29 - 143	2	23
4-Nitroaniline			5.00	4.134		mg/Kg		83	26 - 147	1	29
4-Nitrophenol			5.00	3.360		mg/Kg		67	10 - 145	4	30
Acenaphthene			5.00	4.062		mg/Kg		81	30 - 144	1	22
Acenaphthylene			5.00	4.356		mg/Kg		87	28 - 148	2	25
Aniline			5.00	1.794		mg/Kg		36	10 - 120	5	30
Anthracene			5.00	4.165		mg/Kg		83	30 - 149	6	24
Azobenzene			5.00	3.348		mg/Kg		67	14 - 147	6	30
Benzidine			5.00	ND		mg/Kg		19	10 - 120	20	30
Benzo[a]anthracene			5.00	4.091		mg/Kg		82	27 - 156	6	24
Benzo[a]pyrene			5.00	4.294		mg/Kg		86	36 - 157	5	21
Benzo[b]fluoranthene			5.00	4.118		mg/Kg		82	35 - 159	5	21
Benzo[g,h,i]perylene			5.00	4.288		mg/Kg		86	30 - 156	4	25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-341418/3-A
Matrix: Solid
Analysis Batch: 342648

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 341418

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[k]fluoranthene			5.00	4.538		mg/Kg		91	35 - 159	3	22
Benzoic acid			5.00	ND		mg/Kg		22	10 - 136	3	20
Benzyl alcohol			5.00	5.118		mg/Kg		102	18 - 154	9	30
Bis(2-chloroethoxy)methane			5.00	2.839		mg/Kg		57	21 - 140	0	29
Bis(2-chloroethyl)ether			5.00	2.114	J	mg/Kg		42	22 - 151	9	30
bis (2-Chloroisopropyl) ether			5.00	3.631		mg/Kg		73	10 - 179	5	30
Bis(2-ethylhexyl) phthalate			5.00	5.085		mg/Kg		102	23 - 166	6	27
Butyl benzyl phthalate			5.00	4.936		mg/Kg		99	18 - 170	4	29
Chrysene			5.00	4.217		mg/Kg		84	28 - 145	4	21
Dibenz(a,h)anthracene			5.00	4.434		mg/Kg		89	32 - 149	1	25
Dibenzofuran			5.00	3.930		mg/Kg		79	29 - 143	1	24
Diethyl phthalate			5.00	4.585		mg/Kg		92	26 - 151	2	26
Dimethyl phthalate			5.00	4.509		mg/Kg		90	27 - 150	5	24
Di-n-butyl phthalate			5.00	4.660		mg/Kg		93	27 - 152	4	27
Di-n-octyl phthalate			5.00	5.215		mg/Kg		104	40 - 178	3	21
Fluoranthene			5.00	4.362		mg/Kg		87	33 - 156	2	26
Fluorene			5.00	4.229		mg/Kg		85	27 - 146	4	26
Hexachloro-1,3-butadiene			5.00	3.179		mg/Kg		64	22 - 140	9	30
Hexachlorobenzene			5.00	4.263		mg/Kg		85	20 - 143	1	25
Hexachlorocyclopentadiene			5.00	3.728		mg/Kg		75	10 - 172	3	27
Hexachloroethane			5.00	2.590		mg/Kg		52	22 - 144	7	30
Indeno[1,2,3-cd]pyrene			5.00	4.010		mg/Kg		80	38 - 157	4	25
Isophorone			5.00	3.767		mg/Kg		75	15 - 165	5	30
Naphthalene			5.00	3.420		mg/Kg		68	25 - 140	2	28
Nitrobenzene			5.00	2.882		mg/Kg		58	17 - 136	5	30
N-Nitrosodimethylamine			5.00	1.753		mg/Kg		35	10 - 134	9	30
N-Nitrosodi-n-propylamine			5.00	3.073		mg/Kg		61	16 - 158	3	30
N-Nitrosodiphenylamine			5.00	4.643		mg/Kg		93	33 - 166	4	23
Pentachlorophenol			5.00	3.850		mg/Kg		77	10 - 141	4	25
Phenanthrene			5.00	4.068		mg/Kg		81	29 - 144	5	23
Phenol			5.00	2.746		mg/Kg		55	19 - 164	7	30
Pyrene			5.00	4.352		mg/Kg		87	17 - 156	3	27
Pyridine			5.00	1.579		mg/Kg		32	10 - 120	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*69*		*10 - 134*
2-Fluorobiphenyl (Surr)	*68*		*14 - 142*
2-Fluorophenol (Surr)	*45*		*10 - 123*
Nitrobenzene-d5 (Surr)	*51*		*10 - 129*
p-Terphenyl-d14 (Surr)	*81*		*31 - 139*
Phenol-d6 (Surr)	*49*		*10 - 120*

Lab Sample ID: MB 570-343491/1-A
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50	0.089	mg/Kg		07/06/23 17:24	07/08/23 02:48	1

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-343491/1-A
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.50	0.074	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
1,3-Dichlorobenzene	ND		0.50	0.069	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
1,4-Dichlorobenzene	ND		0.50	0.071	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
1-Methylnaphthalene	ND		0.50	0.036	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,4,5-Trichlorophenol	ND		0.50	0.070	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,4,6-Trichlorophenol	ND		0.50	0.078	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,4-Dichlorophenol	ND		0.50	0.10	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,4-Dimethylphenol	ND		0.50	0.045	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,4-Dinitrophenol	ND		2.0	1.6	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,4-Dinitrotoluene	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,6-Dichlorophenol	ND		0.50	0.065	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2,6-Dinitrotoluene	ND		0.50	0.059	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2-Chloronaphthalene	ND		0.50	0.057	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2-Chlorophenol	ND		0.50	0.099	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2-Methylnaphthalene	ND		0.50	0.057	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2-Methylphenol	ND		0.50	0.094	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2-Nitroaniline	ND		0.50	0.065	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
2-Nitrophenol	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
3,3'-Dichlorobenzidine	ND		2.5	0.81	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
3 & 4 Methylphenol	ND		1.0	0.22	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
3-Nitroaniline	ND		0.50	0.12	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
4,6-Dinitro-2-methylphenol	ND		2.5	0.97	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
4-Bromophenyl phenyl ether	ND		0.50	0.059	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
4-Chloro-3-methylphenol	ND		0.50	0.084	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
4-Chloroaniline	ND		0.50	0.072	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
4-Chlorophenyl phenyl ether	ND		0.50	0.070	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
4-Nitroaniline	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
4-Nitrophenol	ND		0.50	0.17	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Acenaphthene	ND		0.50	0.054	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Acenaphthylene	ND		0.50	0.096	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Aniline	ND		0.50	0.12	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Anthracene	ND		0.50	0.051	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Azobenzene	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzidine	ND		5.0	1.4	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzo[a]anthracene	ND		0.50	0.046	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzo[a]pyrene	ND		0.50	0.076	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzo[b]fluoranthene	ND		0.50	0.080	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzo[g,h,i]perylene	ND		0.50	0.083	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzo[k]fluoranthene	ND		0.50	0.094	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzoic acid	ND		2.5	1.6	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Benzyl alcohol	ND		0.50	0.085	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Bis(2-chloroethoxy)methane	ND		0.50	0.062	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Bis(2-chloroethyl)ether	ND		2.5	0.10	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
bis (2-Chloroisopropyl) ether	ND		0.50	0.060	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Bis(2-ethylhexyl) phthalate	ND		0.50	0.25	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Butyl benzyl phthalate	ND		0.50	0.22	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Chrysene	ND		0.50	0.068	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Dibenz(a,h)anthracene	ND		0.50	0.10	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Dibenzofuran	ND		0.50	0.094	mg/Kg		07/06/23 17:24	07/08/23 02:48	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-343491/1-A
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	ND		0.50	0.061	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Dimethyl phthalate	ND		0.50	0.063	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Di-n-butyl phthalate	ND		0.50	0.073	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Di-n-octyl phthalate	ND		0.50	0.36	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Fluoranthene	ND		0.50	0.058	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Fluorene	ND		0.50	0.067	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Hexachloro-1,3-butadiene	ND		0.50	0.050	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Hexachlorobenzene	ND		0.50	0.092	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Hexachlorocyclopentadiene	ND		1.5	0.38	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Hexachloroethane	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Indeno[1,2,3-cd]pyrene	ND		0.50	0.090	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Isophorone	ND		0.50	0.068	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Naphthalene	ND		0.50	0.058	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Nitrobenzene	ND		2.0	0.092	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
N-Nitrosodimethylamine	ND		0.50	0.077	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
N-Nitrosodi-n-propylamine	ND		0.50	0.067	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
N-Nitrosodiphenylamine	ND		0.50	0.095	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Pentachlorophenol	ND		2.5	1.0	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Phenanthrene	ND		0.50	0.061	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Phenol	ND		0.50	0.095	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Pyrene	ND		0.50	0.075	mg/Kg		07/06/23 17:24	07/08/23 02:48	1
Pyridine	ND		0.50	0.082	mg/Kg		07/06/23 17:24	07/08/23 02:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*10 - 134*	*07/06/23 17:24*	*07/08/23 02:48*	*1*
2-Fluorobiphenyl (Surr)	*76*		*14 - 142*	*07/06/23 17:24*	*07/08/23 02:48*	*1*
2-Fluorophenol (Surr)	*80*		*10 - 123*	*07/06/23 17:24*	*07/08/23 02:48*	*1*
Nitrobenzene-d5 (Surr)	*75*		*10 - 129*	*07/06/23 17:24*	*07/08/23 02:48*	*1*
p-Terphenyl-d14 (Surr)	*93*		*31 - 139*	*07/06/23 17:24*	*07/08/23 02:48*	*1*
Phenol-d6 (Surr)	*71*		*10 - 120*	*07/06/23 17:24*	*07/08/23 02:48*	*1*

Lab Sample ID: MB 570-343491/1-A
Matrix: Solid
Analysis Batch: 344278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.50	0.089	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
1,2-Dichlorobenzene	ND		0.50	0.074	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
1,3-Dichlorobenzene	ND		0.50	0.069	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
1,4-Dichlorobenzene	ND		0.50	0.071	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
1-Methylnaphthalene	ND		0.50	0.036	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2,4,5-Trichlorophenol	ND		0.50	0.070	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2,4,6-Trichlorophenol	ND		0.50	0.078	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2,4-Dichlorophenol	ND		0.50	0.10	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2,4-Dimethylphenol	ND		0.50	0.045	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2,4-Dinitrophenol	ND		2.0	1.6	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2,4-Dinitrotoluene	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2,6-Dichlorophenol	ND		0.50	0.065	mg/Kg		07/06/23 17:24	07/10/23 23:48	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-343491/1-A
Matrix: Solid
Analysis Batch: 344278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		0.50	0.059	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2-Chloronaphthalene	ND		0.50	0.057	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2-Chlorophenol	ND		0.50	0.099	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2-Methylnaphthalene	ND		0.50	0.057	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2-Methylphenol	ND		0.50	0.094	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2-Nitroaniline	ND		0.50	0.065	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
2-Nitrophenol	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
3,3'-Dichlorobenzidine	ND		2.5	0.81	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
3 & 4 Methylphenol	ND		1.0	0.22	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
3-Nitroaniline	ND		0.50	0.12	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
4,6-Dinitro-2-methylphenol	ND		2.5	0.97	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
4-Bromophenyl phenyl ether	ND		0.50	0.059	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
4-Chloro-3-methylphenol	ND		0.50	0.084	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
4-Chloroaniline	ND		0.50	0.072	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
4-Chlorophenyl phenyl ether	ND		0.50	0.070	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
4-Nitroaniline	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
4-Nitrophenol	ND		0.50	0.17	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Acenaphthene	ND		0.50	0.054	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Acenaphthylene	ND		0.50	0.096	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Aniline	ND		0.50	0.12	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Anthracene	ND		0.50	0.051	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Azobenzene	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzidine	ND		5.0	1.4	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzo[a]anthracene	ND		0.50	0.046	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzo[a]pyrene	ND		0.50	0.076	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzo[b]fluoranthene	ND		0.50	0.080	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzo[g,h,i]perylene	ND		0.50	0.083	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzo[k]fluoranthene	ND		0.50	0.094	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzoic acid	ND		2.5	1.6	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Benzyl alcohol	ND		0.50	0.085	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Bis(2-chloroethoxy)methane	ND		0.50	0.062	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Bis(2-chloroethyl)ether	ND		2.5	0.10	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
bis (2-Chloroisopropyl) ether	ND		0.50	0.060	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Bis(2-ethylhexyl) phthalate	ND		0.50	0.25	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Butyl benzyl phthalate	ND		0.50	0.22	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Chrysene	ND		0.50	0.068	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Dibenz(a,h)anthracene	ND		0.50	0.10	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Dibenzofuran	ND		0.50	0.094	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Diethyl phthalate	ND		0.50	0.061	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Dimethyl phthalate	ND		0.50	0.063	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Di-n-butyl phthalate	ND		0.50	0.073	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Di-n-octyl phthalate	ND		0.50	0.36	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Fluoranthene	ND		0.50	0.058	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Fluorene	ND		0.50	0.067	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Hexachloro-1,3-butadiene	ND		0.50	0.050	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Hexachlorobenzene	ND		0.50	0.092	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Hexachlorocyclopentadiene	ND		1.5	0.38	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Hexachloroethane	ND		0.50	0.11	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Indeno[1,2,3-cd]pyrene	ND		0.50	0.090	mg/Kg		07/06/23 17:24	07/10/23 23:48	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-343491/1-A
Matrix: Solid
Analysis Batch: 344278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		0.50	0.068	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Naphthalene	ND		0.50	0.058	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Nitrobenzene	ND		2.0	0.092	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
N-Nitrosodimethylamine	ND		0.50	0.077	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
N-Nitrosodi-n-propylamine	ND		0.50	0.067	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
N-Nitrosodiphenylamine	ND		0.50	0.095	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Pentachlorophenol	ND		2.5	1.0	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Phenanthrene	ND		0.50	0.061	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Phenol	ND		0.50	0.095	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Pyrene	ND		0.50	0.075	mg/Kg		07/06/23 17:24	07/10/23 23:48	1
Pyridine	ND		0.50	0.082	mg/Kg		07/06/23 17:24	07/10/23 23:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*66*		*10 - 134*	*07/06/23 17:24*	*07/10/23 23:48*	*1*
2-Fluorobiphenyl (Surr)	*69*		*14 - 142*	*07/06/23 17:24*	*07/10/23 23:48*	*1*
2-Fluorophenol (Surr)	*75*		*10 - 123*	*07/06/23 17:24*	*07/10/23 23:48*	*1*
Nitrobenzene-d5 (Surr)	*79*		*10 - 129*	*07/06/23 17:24*	*07/10/23 23:48*	*1*
p-Terphenyl-d14 (Surr)	*90*		*31 - 139*	*07/06/23 17:24*	*07/10/23 23:48*	*1*
Phenol-d6 (Surr)	*75*		*10 - 120*	*07/06/23 17:24*	*07/10/23 23:48*	*1*

Lab Sample ID: LCS 570-343491/2-A
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	5.00	4.205		mg/Kg		84	24 - 137
1,2-Dichlorobenzene	5.00	4.013		mg/Kg		80	24 - 148
1,3-Dichlorobenzene	5.00	4.111		mg/Kg		82	22 - 144
1,4-Dichlorobenzene	5.00	3.976		mg/Kg		80	24 - 143
1-Methylnaphthalene	5.00	4.091		mg/Kg		82	26 - 143
2,4,5-Trichlorophenol	5.00	4.276		mg/Kg		86	24 - 139
2,4,6-Trichlorophenol	5.00	4.228		mg/Kg		85	26 - 140
2,4-Dichlorophenol	5.00	4.572		mg/Kg		91	24 - 139
2,4-Dimethylphenol	5.00	4.311		mg/Kg		86	23 - 136
2,4-Dinitrophenol	5.00	1.922	J	mg/Kg		38	10 - 174
2,4-Dinitrotoluene	5.00	4.620		mg/Kg		92	28 - 166
2,6-Dichlorophenol	5.00	4.065		mg/Kg		81	23 - 134
2,6-Dinitrotoluene	5.00	4.645		mg/Kg		93	30 - 157
2-Chloronaphthalene	5.00	4.382		mg/Kg		88	30 - 144
2-Chlorophenol	5.00	3.957		mg/Kg		79	26 - 157
2-Methylnaphthalene	5.00	3.562		mg/Kg		71	23 - 134
2-Methylphenol	5.00	3.397		mg/Kg		68	30 - 161
2-Nitroaniline	5.00	3.771		mg/Kg		75	16 - 142
2-Nitrophenol	5.00	4.170		mg/Kg		83	23 - 142
3,3'-Dichlorobenzidine	5.00	3.803		mg/Kg		76	28 - 143
3 & 4 Methylphenol	10.0	6.144		mg/Kg		61	10 - 120
3-Nitroaniline	5.00	3.856		mg/Kg		77	25 - 138
4,6-Dinitro-2-methylphenol	5.00	2.659		mg/Kg		53	10 - 144

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-343491/2-A
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Bromophenyl phenyl ether	5.00	4.246		mg/Kg		85	33 - 150
4-Chloro-3-methylphenol	5.00	4.409		mg/Kg		88	23 - 142
4-Chloroaniline	5.00	2.960		mg/Kg		59	12 - 120
4-Chlorophenyl phenyl ether	5.00	4.578		mg/Kg		92	29 - 143
4-Nitroaniline	5.00	4.352		mg/Kg		87	26 - 147
4-Nitrophenol	5.00	4.256		mg/Kg		85	10 - 145
Acenaphthene	5.00	4.269		mg/Kg		85	30 - 144
Acenaphthylene	5.00	4.661		mg/Kg		93	28 - 148
Aniline	5.00	2.295		mg/Kg		46	10 - 120
Anthracene	5.00	4.304		mg/Kg		86	30 - 149
Azobenzene	5.00	3.450		mg/Kg		69	14 - 147
Benzidine	5.00	1.524	J	mg/Kg		30	10 - 120
Benzo[a]anthracene	5.00	4.088		mg/Kg		82	27 - 156
Benzo[a]pyrene	5.00	4.009		mg/Kg		80	36 - 157
Benzo[b]fluoranthene	5.00	3.943		mg/Kg		79	35 - 159
Benzo[g,h,i]perylene	5.00	4.174		mg/Kg		83	30 - 156
Benzo[k]fluoranthene	5.00	4.279		mg/Kg		86	35 - 159
Benzoic acid	5.00	2.080	J	mg/Kg		42	10 - 136
Benzyl alcohol	5.00	5.888		mg/Kg		118	18 - 154
Bis(2-chloroethoxy)methane	5.00	3.052		mg/Kg		61	21 - 140
Bis(2-chloroethyl)ether	5.00	2.841		mg/Kg		57	22 - 151
bis (2-Chloroisopropyl) ether	5.00	5.053		mg/Kg		101	10 - 179
Bis(2-ethylhexyl) phthalate	5.00	5.247		mg/Kg		105	23 - 166
Butyl benzyl phthalate	5.00	5.029		mg/Kg		101	18 - 170
Chrysene	5.00	4.143		mg/Kg		83	28 - 145
Dibenz(a,h)anthracene	5.00	4.257		mg/Kg		85	32 - 149
Dibenzofuran	5.00	4.209		mg/Kg		84	29 - 143
Diethyl phthalate	5.00	4.775		mg/Kg		96	26 - 151
Dimethyl phthalate	5.00	4.404		mg/Kg		88	27 - 150
Di-n-butyl phthalate	5.00	4.759		mg/Kg		95	27 - 152
Di-n-octyl phthalate	5.00	5.118		mg/Kg		102	40 - 178
Fluoranthene	5.00	4.327		mg/Kg		87	33 - 156
Fluorene	5.00	4.485		mg/Kg		90	27 - 146
Hexachloro-1,3-butadiene	5.00	4.485		mg/Kg		90	22 - 140
Hexachlorobenzene	5.00	4.592		mg/Kg		92	20 - 143
Hexachlorocyclopentadiene	5.00	2.772		mg/Kg		55	10 - 172
Hexachloroethane	5.00	3.791		mg/Kg		76	22 - 144
Indeno[1,2,3-cd]pyrene	5.00	4.001		mg/Kg		80	38 - 157
Isophorone	5.00	3.741		mg/Kg		75	15 - 165
Naphthalene	5.00	4.109		mg/Kg		82	25 - 140
Nitrobenzene	5.00	3.334		mg/Kg		67	17 - 136
N-Nitrosodimethylamine	5.00	2.469		mg/Kg		49	10 - 134
N-Nitrosodi-n-propylamine	5.00	3.405		mg/Kg		68	16 - 158
N-Nitrosodiphenylamine	5.00	4.798		mg/Kg		96	33 - 166
Pentachlorophenol	5.00	4.776		mg/Kg		96	10 - 141
Phenanthrene	5.00	4.229		mg/Kg		85	29 - 144
Phenol	5.00	3.689		mg/Kg		74	19 - 164
Pyrene	5.00	4.696		mg/Kg		94	17 - 156
Pyridine	5.00	2.358		mg/Kg		47	10 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	79		10 - 134
2-Fluorobiphenyl (Surr)	71		14 - 142
2-Fluorophenol (Surr)	68		10 - 123
Nitrobenzene-d5 (Surr)	59		10 - 129
p-Terphenyl-d14 (Surr)	85		31 - 139
Phenol-d6 (Surr)	62		10 - 120

Lab Sample ID: LCSD 570-343491/3-A
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 343491

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			5.00	4.468		mg/Kg		89	24 - 137	6	30
1,2-Dichlorobenzene			5.00	4.053		mg/Kg		81	24 - 148	1	30
1,3-Dichlorobenzene			5.00	3.932		mg/Kg		79	22 - 144	4	30
1,4-Dichlorobenzene			5.00	3.923		mg/Kg		78	24 - 143	1	30
1-Methylnaphthalene			5.00	4.345		mg/Kg		87	26 - 143	6	24
2,4,5-Trichlorophenol			5.00	4.627		mg/Kg		93	24 - 139	8	21
2,4,6-Trichlorophenol			5.00	4.538		mg/Kg		91	26 - 140	7	23
2,4-Dichlorophenol			5.00	4.510		mg/Kg		90	24 - 139	1	27
2,4-Dimethylphenol			5.00	4.477		mg/Kg		90	23 - 136	4	27
2,4-Dinitrophenol			5.00	1.893	J	mg/Kg		38	10 - 174	2	27
2,4-Dinitrotoluene			5.00	4.896		mg/Kg		98	28 - 166	6	27
2,6-Dichlorophenol			5.00	4.530		mg/Kg		91	23 - 134	11	25
2,6-Dinitrotoluene			5.00	4.619		mg/Kg		92	30 - 157	1	25
2-Chloronaphthalene			5.00	4.591		mg/Kg		92	30 - 144	5	22
2-Chlorophenol			5.00	4.037		mg/Kg		81	26 - 157	2	30
2-Methylnaphthalene			5.00	3.795		mg/Kg		76	23 - 134	6	27
2-Methylphenol			5.00	3.566		mg/Kg		71	30 - 161	5	28
2-Nitroaniline			5.00	3.887		mg/Kg		78	16 - 142	3	30
2-Nitrophenol			5.00	4.489		mg/Kg		90	23 - 142	7	30
3,3'-Dichlorobenzidine			5.00	3.961		mg/Kg		79	28 - 143	4	23
3 & 4 Methylphenol			10.0	6.562		mg/Kg		66	10 - 120	7	30
3-Nitroaniline			5.00	4.170		mg/Kg		83	25 - 138	8	27
4,6-Dinitro-2-methylphenol			5.00	2.681		mg/Kg		54	10 - 144	1	23
4-Bromophenyl phenyl ether			5.00	4.399		mg/Kg		88	33 - 150	4	22
4-Chloro-3-methylphenol			5.00	4.457		mg/Kg		89	23 - 142	1	30
4-Chloroaniline			5.00	3.004		mg/Kg		60	12 - 120	1	29
4-Chlorophenyl phenyl ether			5.00	4.684		mg/Kg		94	29 - 143	2	23
4-Nitroaniline			5.00	4.517		mg/Kg		90	26 - 147	4	29
4-Nitrophenol			5.00	4.353		mg/Kg		87	10 - 145	2	30
Acenaphthene			5.00	4.419		mg/Kg		88	30 - 144	3	22
Acenaphthylene			5.00	4.903		mg/Kg		98	28 - 148	5	25
Aniline			5.00	2.257		mg/Kg		45	10 - 120	2	30
Anthracene			5.00	4.431		mg/Kg		89	30 - 149	3	24
Azobenzene			5.00	3.495		mg/Kg		70	14 - 147	1	30
Benzidine			5.00	ND	*1	mg/Kg		21	10 - 120	36	30
Benzo[a]anthracene			5.00	4.222		mg/Kg		84	27 - 156	3	24
Benzo[a]pyrene			5.00	4.180		mg/Kg		84	36 - 157	4	21
Benzo[b]fluoranthene			5.00	4.123		mg/Kg		82	35 - 159	4	21
Benzo[g,h,i]perylene			5.00	4.317		mg/Kg		86	30 - 156	3	25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-343491/3-A
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 343491

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[k]fluoranthene			5.00	4.383		mg/Kg		88	35 - 159	2	22
Benzoic acid			5.00	2.481	J	mg/Kg		50	10 - 136	18	20
Benzyl alcohol			5.00	6.033		mg/Kg		121	18 - 154	2	30
Bis(2-chloroethoxy)methane			5.00	3.305		mg/Kg		66	21 - 140	8	29
Bis(2-chloroethyl)ether			5.00	2.973		mg/Kg		59	22 - 151	5	30
bis (2-Chloroisopropyl) ether			5.00	5.027		mg/Kg		101	10 - 179	1	30
Bis(2-ethylhexyl) phthalate			5.00	5.461		mg/Kg		109	23 - 166	4	27
Butyl benzyl phthalate			5.00	5.321		mg/Kg		106	18 - 170	6	29
Chrysene			5.00	4.292		mg/Kg		86	28 - 145	4	21
Dibenz(a,h)anthracene			5.00	4.524		mg/Kg		90	32 - 149	6	25
Dibenzofuran			5.00	4.327		mg/Kg		87	29 - 143	3	24
Diethyl phthalate			5.00	4.956		mg/Kg		99	26 - 151	4	26
Dimethyl phthalate			5.00	4.618		mg/Kg		92	27 - 150	5	24
Di-n-butyl phthalate			5.00	4.785		mg/Kg		96	27 - 152	1	27
Di-n-octyl phthalate			5.00	5.315		mg/Kg		106	40 - 178	4	21
Fluoranthene			5.00	4.334		mg/Kg		87	33 - 156	0	26
Fluorene			5.00	4.708		mg/Kg		94	27 - 146	5	26
Hexachloro-1,3-butadiene			5.00	4.733		mg/Kg		95	22 - 140	5	30
Hexachlorobenzene			5.00	4.388		mg/Kg		88	20 - 143	5	25
Hexachlorocyclopentadiene			5.00	3.138		mg/Kg		63	10 - 172	12	27
Hexachloroethane			5.00	4.009		mg/Kg		80	22 - 144	6	30
Indeno[1,2,3-cd]pyrene			5.00	4.186		mg/Kg		84	38 - 157	5	25
Isophorone			5.00	3.909		mg/Kg		78	15 - 165	4	30
Naphthalene			5.00	4.318		mg/Kg		86	25 - 140	5	28
Nitrobenzene			5.00	3.372		mg/Kg		67	17 - 136	1	30
N-Nitrosodimethylamine			5.00	2.352		mg/Kg		47	10 - 134	5	30
N-Nitrosodi-n-propylamine			5.00	3.588		mg/Kg		72	16 - 158	5	30
N-Nitrosodiphenylamine			5.00	4.995		mg/Kg		100	33 - 166	4	23
Pentachlorophenol			5.00	4.455		mg/Kg		89	10 - 141	7	25
Phenanthrene			5.00	4.262		mg/Kg		85	29 - 144	1	23
Phenol			5.00	3.825		mg/Kg		77	19 - 164	4	30
Pyrene			5.00	4.932		mg/Kg		99	17 - 156	5	27
Pyridine			5.00	2.503		mg/Kg		50	10 - 120	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*10 - 134*
2-Fluorobiphenyl (Surr)	*75*		*14 - 142*
2-Fluorophenol (Surr)	*71*		*10 - 123*
Nitrobenzene-d5 (Surr)	*65*		*10 - 129*
p-Terphenyl-d14 (Surr)	*89*		*31 - 139*
Phenol-d6 (Surr)	*65*		*10 - 120*

Lab Sample ID: 570-142883-4 MS
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: JBRA-02-0.0-0.5
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trichlorobenzene	ND		6.84	5.297		mg/Kg	☼	77	50 - 125

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-142883-4 MS
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: JBRA-02-0.0-0.5
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichlorobenzene	ND		6.84	4.908		mg/Kg	☼	72	42 - 125
1,3-Dichlorobenzene	ND		6.84	4.977		mg/Kg	☼	73	40 - 125
1,4-Dichlorobenzene	ND		6.84	4.647		mg/Kg	☼	68	45 - 125
1-Methylnaphthalene	ND		6.84	5.188		mg/Kg	☼	76	54 - 125
2,4,5-Trichlorophenol	ND		6.84	5.302		mg/Kg	☼	77	35 - 125
2,4,6-Trichlorophenol	ND		6.84	5.310		mg/Kg	☼	78	33 - 126
2,4-Dichlorophenol	ND		6.84	5.668		mg/Kg	☼	83	45 - 125
2,4-Dimethylphenol	ND		6.84	4.828		mg/Kg	☼	71	44 - 125
2,4-Dinitrophenol	ND		6.84	2.209	J	mg/Kg	☼	32	10 - 125
2,4-Dinitrotoluene	ND		6.84	5.335		mg/Kg	☼	78	47 - 125
2,6-Dichlorophenol	ND		6.84	5.246		mg/Kg	☼	77	38 - 125
2,6-Dinitrotoluene	ND		6.84	5.432		mg/Kg	☼	79	41 - 125
2-Chloronaphthalene	ND		6.84	5.083		mg/Kg	☼	74	47 - 125
2-Chlorophenol	ND		6.84	4.754		mg/Kg	☼	69	49 - 125
2-Methylnaphthalene	ND		6.84	4.603		mg/Kg	☼	67	42 - 125
2-Methylphenol	ND		6.84	3.921		mg/Kg	☼	57	46 - 125
2-Nitroaniline	ND		6.84	4.375		mg/Kg	☼	64	43 - 125
2-Nitrophenol	ND		6.84	5.237		mg/Kg	☼	77	25 - 126
3,3'-Dichlorobenzidine	ND		6.84	4.862		mg/Kg	☼	71	29 - 125
3 & 4 Methylphenol	ND		13.7	7.545		mg/Kg	☼	55	26 - 125
3-Nitroaniline	ND		6.84	4.483		mg/Kg	☼	66	39 - 125
4,6-Dinitro-2-methylphenol	ND		6.84	3.252	J	mg/Kg	☼	48	10 - 125
4-Bromophenyl phenyl ether	ND		6.84	5.190		mg/Kg	☼	76	47 - 125
4-Chloro-3-methylphenol	ND		6.84	5.668		mg/Kg	☼	83	53 - 125
4-Chloroaniline	ND		6.84	3.864		mg/Kg	☼	56	33 - 125
4-Chlorophenyl phenyl ether	ND		6.84	5.466		mg/Kg	☼	80	49 - 125
4-Nitroaniline	ND		6.84	4.870		mg/Kg	☼	71	35 - 125
4-Nitrophenol	ND		6.84	4.895		mg/Kg	☼	72	22 - 134
Acenaphthene	ND		6.84	5.141		mg/Kg	☼	75	51 - 125
Acenaphthylene	ND		6.84	5.255		mg/Kg	☼	77	54 - 125
Aniline	ND		6.84	2.582		mg/Kg	☼	38	24 - 125
Anthracene	ND		6.84	5.122		mg/Kg	☼	75	50 - 125
Azobenzene	ND		6.84	4.268		mg/Kg	☼	62	48 - 125
Benzidine	ND	F1 *1	6.84	ND	F1	mg/Kg	☼	0	10 - 126
Benzo[a]anthracene	ND		6.84	4.831		mg/Kg	☼	71	62 - 125
Benzo[a]pyrene	ND		6.84	4.562		mg/Kg	☼	67	55 - 131
Benzo[b]fluoranthene	ND		6.84	4.683		mg/Kg	☼	68	49 - 128
Benzo[g,h,i]perylene	ND		6.84	4.368		mg/Kg	☼	64	56 - 125
Benzo[k]fluoranthene	ND		6.84	4.752		mg/Kg	☼	69	48 - 125
Benzoic acid	ND	F1	6.84	ND	F1	mg/Kg	☼	0	10 - 125
Benzyl alcohol	ND		6.84	7.401		mg/Kg	☼	108	47 - 125
Bis(2-chloroethoxy)methane	ND		6.84	3.980		mg/Kg	☼	58	48 - 125
Bis(2-chloroethyl)ether	ND		6.84	3.305	J	mg/Kg	☼	48	43 - 125
bis (2-Chloroisopropyl) ether	ND		6.84	6.097		mg/Kg	☼	89	46 - 125
Bis(2-ethylhexyl) phthalate	ND		6.84	6.600		mg/Kg	☼	96	50 - 125
Butyl benzyl phthalate	ND		6.84	6.377		mg/Kg	☼	93	58 - 125
Chrysene	ND		6.84	4.855		mg/Kg	☼	71	53 - 125
Dibenz(a,h)anthracene	ND		6.84	4.579		mg/Kg	☼	67	57 - 125
Dibenzofuran	ND		6.84	4.946		mg/Kg	☼	72	47 - 125

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-142883-4 MS
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: JBRA-02-0.0-0.5
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diethyl phthalate	ND		6.84	5.686		mg/Kg	☼	83	53 - 125
Dimethyl phthalate	ND		6.84	5.301		mg/Kg	☼	77	52 - 125
Di-n-butyl phthalate	ND		6.84	5.566		mg/Kg	☼	81	49 - 125
Di-n-octyl phthalate	ND		6.84	6.404		mg/Kg	☼	94	57 - 125
Fluoranthene	ND		6.84	5.066		mg/Kg	☼	74	50 - 125
Fluorene	ND		6.84	5.322		mg/Kg	☼	78	54 - 125
Hexachloro-1,3-butadiene	ND		6.84	5.586		mg/Kg	☼	82	43 - 125
Hexachlorobenzene	ND		6.84	5.318		mg/Kg	☼	78	55 - 125
Hexachlorocyclopentadiene	ND		6.84	3.167		mg/Kg	☼	46	10 - 150
Hexachloroethane	ND		6.84	4.792		mg/Kg	☼	70	27 - 125
Indeno[1,2,3-cd]pyrene	ND		6.84	4.031		mg/Kg	☼	59	55 - 125
Isophorone	ND		6.84	4.730		mg/Kg	☼	69	50 - 125
Naphthalene	ND		6.84	5.063		mg/Kg	☼	74	39 - 127
Nitrobenzene	ND		6.84	4.115		mg/Kg	☼	60	43 - 125
N-Nitrosodimethylamine	ND		6.84	2.787		mg/Kg	☼	41	36 - 125
N-Nitrosodi-n-propylamine	ND		6.84	4.231		mg/Kg	☼	62	47 - 125
N-Nitrosodiphenylamine	ND		6.84	5.806		mg/Kg	☼	85	57 - 134
Pentachlorophenol	ND		6.84	6.214		mg/Kg	☼	91	10 - 125
Phenanthrene	ND		6.84	5.066		mg/Kg	☼	74	51 - 125
Phenol	ND		6.84	4.645		mg/Kg	☼	68	45 - 125
Pyrene	ND		6.84	5.769		mg/Kg	☼	84	56 - 125
Pyridine	ND		6.84	2.459		mg/Kg	☼	36	17 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*74*		*10 - 134*
2-Fluorobiphenyl (Surr)	*65*		*14 - 142*
2-Fluorophenol (Surr)	*61*		*10 - 123*
Nitrobenzene-d5 (Surr)	*56*		*10 - 129*
p-Terphenyl-d14 (Surr)	*76*		*31 - 139*
Phenol-d6 (Surr)	*55*		*10 - 120*

Lab Sample ID: 570-142883-4 MSD
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: JBRA-02-0.0-0.5
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		6.63	5.270		mg/Kg	☼	79	50 - 125	1	20
1,2-Dichlorobenzene	ND		6.63	4.788		mg/Kg	☼	72	42 - 125	2	20
1,3-Dichlorobenzene	ND		6.63	4.658		mg/Kg	☼	70	40 - 125	7	21
1,4-Dichlorobenzene	ND		6.63	4.587		mg/Kg	☼	69	45 - 125	1	24
1-Methylnaphthalene	ND		6.63	5.042		mg/Kg	☼	76	54 - 125	3	20
2,4,5-Trichlorophenol	ND		6.63	5.488		mg/Kg	☼	83	35 - 125	3	20
2,4,6-Trichlorophenol	ND		6.63	5.356		mg/Kg	☼	81	33 - 126	1	20
2,4-Dichlorophenol	ND		6.63	5.735		mg/Kg	☼	86	45 - 125	1	20
2,4-Dimethylphenol	ND		6.63	5.012		mg/Kg	☼	76	44 - 125	4	20
2,4-Dinitrophenol	ND		6.63	2.373	J	mg/Kg	☼	36	10 - 125	7	22
2,4-Dinitrotoluene	ND		6.63	5.265		mg/Kg	☼	79	47 - 125	1	20
2,6-Dichlorophenol	ND		6.63	5.264		mg/Kg	☼	79	38 - 125	0	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-142883-4 MSD
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: JBRA-02-0.0-0.5
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,6-Dinitrotoluene	ND		6.63	5.307		mg/Kg	☼	80	41 - 125	2	20
2-Chloronaphthalene	ND		6.63	4.980		mg/Kg	☼	75	47 - 125	2	20
2-Chlorophenol	ND		6.63	4.747		mg/Kg	☼	72	49 - 125	0	20
2-Methylnaphthalene	ND		6.63	4.399		mg/Kg	☼	66	42 - 125	5	20
2-Methylphenol	ND		6.63	4.110		mg/Kg	☼	62	46 - 125	5	20
2-Nitroaniline	ND		6.63	4.591		mg/Kg	☼	69	43 - 125	5	20
2-Nitrophenol	ND		6.63	5.138		mg/Kg	☼	77	25 - 126	2	21
3,3'-Dichlorobenzidine	ND		6.63	5.069		mg/Kg	☼	76	29 - 125	4	20
3 & 4 Methylphenol	ND		13.3	7.531		mg/Kg	☼	57	26 - 125	0	20
3-Nitroaniline	ND		6.63	4.805		mg/Kg	☼	72	39 - 125	7	20
4,6-Dinitro-2-methylphenol	ND		6.63	3.423		mg/Kg	☼	52	10 - 125	5	24
4-Bromophenyl phenyl ether	ND		6.63	5.009		mg/Kg	☼	76	47 - 125	4	20
4-Chloro-3-methylphenol	ND		6.63	5.372		mg/Kg	☼	81	53 - 125	5	20
4-Chloroaniline	ND		6.63	4.016		mg/Kg	☼	61	33 - 125	4	20
4-Chlorophenyl phenyl ether	ND		6.63	5.359		mg/Kg	☼	81	49 - 125	2	20
4-Nitroaniline	ND		6.63	5.204		mg/Kg	☼	78	35 - 125	7	20
4-Nitrophenol	ND		6.63	4.967		mg/Kg	☼	75	22 - 134	1	21
Acenaphthene	ND		6.63	5.121		mg/Kg	☼	77	51 - 125	0	20
Acenaphthylene	ND		6.63	5.524		mg/Kg	☼	83	54 - 125	5	20
Aniline	ND		6.63	3.083		mg/Kg	☼	46	24 - 125	18	20
Anthracene	ND		6.63	5.263		mg/Kg	☼	79	50 - 125	3	20
Azobenzene	ND		6.63	4.245		mg/Kg	☼	64	48 - 125	1	20
Benzidine	ND	F1 *1	6.63	ND	F1	mg/Kg	☼	0	10 - 126	NC	30
Benzo[a]anthracene	ND		6.63	4.721		mg/Kg	☼	71	62 - 125	2	20
Benzo[a]pyrene	ND		6.63	4.503		mg/Kg	☼	68	55 - 131	1	20
Benzo[b]fluoranthene	ND		6.63	4.737		mg/Kg	☼	71	49 - 128	1	20
Benzo[g,h,i]perylene	ND		6.63	4.421		mg/Kg	☼	67	56 - 125	1	20
Benzo[k]fluoranthene	ND		6.63	4.855		mg/Kg	☼	73	48 - 125	2	20
Benzoic acid	ND	F1	6.63	ND	F1	mg/Kg	☼	0	10 - 125	NC	35
Benzyl alcohol	ND		6.63	7.182		mg/Kg	☼	108	47 - 125	3	20
Bis(2-chloroethoxy)methane	ND		6.63	3.629		mg/Kg	☼	55	48 - 125	9	20
Bis(2-chloroethyl)ether	ND		6.63	3.479		mg/Kg	☼	52	43 - 125	5	20
bis (2-Chloroisopropyl) ether	ND		6.63	6.224		mg/Kg	☼	94	46 - 125	2	20
Bis(2-ethylhexyl) phthalate	ND		6.63	6.613		mg/Kg	☼	100	50 - 125	0	20
Butyl benzyl phthalate	ND		6.63	6.301		mg/Kg	☼	95	58 - 125	1	20
Chrysene	ND		6.63	4.771		mg/Kg	☼	72	53 - 125	2	20
Dibenz(a,h)anthracene	ND		6.63	4.549		mg/Kg	☼	69	57 - 125	1	20
Dibenzofuran	ND		6.63	4.959		mg/Kg	☼	75	47 - 125	0	20
Diethyl phthalate	ND		6.63	5.613		mg/Kg	☼	85	53 - 125	1	20
Dimethyl phthalate	ND		6.63	5.256		mg/Kg	☼	79	52 - 125	1	20
Di-n-butyl phthalate	ND		6.63	5.685		mg/Kg	☼	86	49 - 125	2	20
Di-n-octyl phthalate	ND		6.63	6.279		mg/Kg	☼	95	57 - 125	2	20
Fluoranthene	ND		6.63	5.159		mg/Kg	☼	78	50 - 125	2	20
Fluorene	ND		6.63	5.377		mg/Kg	☼	81	54 - 125	1	20
Hexachloro-1,3-butadiene	ND		6.63	5.736		mg/Kg	☼	86	43 - 125	3	20
Hexachlorobenzene	ND		6.63	5.509		mg/Kg	☼	83	55 - 125	4	20
Hexachlorocyclopentadiene	ND		6.63	3.087		mg/Kg	☼	47	10 - 150	3	33
Hexachloroethane	ND		6.63	4.885		mg/Kg	☼	74	27 - 125	2	27
Indeno[1,2,3-cd]pyrene	ND		6.63	4.113		mg/Kg	☼	62	55 - 125	2	20

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 570-142883-4 MSD
Matrix: Solid
Analysis Batch: 343783

Client Sample ID: JBRA-02-0.0-0.5
Prep Type: Total/NA
Prep Batch: 343491

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Isophorone	ND		6.63	4.608		mg/Kg	☼	69	50 - 125	3	20
Naphthalene	ND		6.63	5.084		mg/Kg	☼	77	39 - 127	0	20
Nitrobenzene	ND		6.63	4.148		mg/Kg	☼	63	43 - 125	1	20
N-Nitrosodimethylamine	ND		6.63	2.676		mg/Kg	☼	40	36 - 125	4	26
N-Nitrosodi-n-propylamine	ND		6.63	4.366		mg/Kg	☼	66	47 - 125	3	20
N-Nitrosodiphenylamine	ND		6.63	5.891		mg/Kg	☼	89	57 - 134	1	20
Pentachlorophenol	ND		6.63	5.832		mg/Kg	☼	88	10 - 125	6	20
Phenanthrene	ND		6.63	5.161		mg/Kg	☼	78	51 - 125	2	20
Phenol	ND		6.63	4.552		mg/Kg	☼	69	45 - 125	2	20
Pyrene	ND		6.63	5.640		mg/Kg	☼	85	56 - 125	2	20
Pyridine	ND		6.63	2.703		mg/Kg	☼	41	17 - 125	9	27

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*75*		*10 - 134*
2-Fluorobiphenyl (Surr)	*64*		*14 - 142*
2-Fluorophenol (Surr)	*64*		*10 - 123*
Nitrobenzene-d5 (Surr)	*60*		*10 - 129*
p-Terphenyl-d14 (Surr)	*79*		*31 - 139*
Phenol-d6 (Surr)	*56*		*10 - 120*

Method: 8290A - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-686569/1-A
Matrix: Solid
Analysis Batch: 688366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 686569

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		1.0	0.16	pg/g		06/28/23 10:01	07/06/23 05:38	1
2,3,7,8-TCDF	ND		1.0	0.061	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,7,8-PeCDD	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,7,8-PeCDF	ND		5.0	0.066	pg/g		06/28/23 10:01	07/06/23 05:38	1
2,3,4,7,8-PeCDF	ND		5.0	0.073	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,4,7,8-HxCDD	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,6,7,8-HxCDD	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,7,8,9-HxCDD	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,4,7,8-HxCDF	ND		5.0	0.097	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,6,7,8-HxCDF	ND		5.0	0.090	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,7,8,9-HxCDF	ND		5.0	0.12	pg/g		06/28/23 10:01	07/06/23 05:38	1
2,3,4,6,7,8-HxCDF	ND		5.0	0.086	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,4,6,7,8-HpCDD	0.1796	J q	5.0	0.091	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,4,6,7,8-HpCDF	ND		5.0	0.093	pg/g		06/28/23 10:01	07/06/23 05:38	1
1,2,3,4,7,8,9-HpCDF	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1
OCDD	1.285	J	10	0.13	pg/g		06/28/23 10:01	07/06/23 05:38	1
OCDF	0.3000	J q	10	0.13	pg/g		06/28/23 10:01	07/06/23 05:38	1
Total TCDD	ND		1.0	0.16	pg/g		06/28/23 10:01	07/06/23 05:38	1
Total TCDF	ND		1.0	0.061	pg/g		06/28/23 10:01	07/06/23 05:38	1
Total PeCDD	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1
Total PeCDF	ND		5.0	0.073	pg/g		06/28/23 10:01	07/06/23 05:38	1
Total HxCDD	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-686569/1-A
Matrix: Solid
Analysis Batch: 688366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 686569

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total HxCDF	ND		5.0	0.12	pg/g		06/28/23 10:01	07/06/23 05:38	1
Total HpCDD	0.1796	J q	5.0	0.091	pg/g		06/28/23 10:01	07/06/23 05:38	1
Total HpCDF	ND		5.0	0.11	pg/g		06/28/23 10:01	07/06/23 05:38	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*62*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-2,3,7,8-TCDF	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,7,8-PeCDD	*61*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,7,8-PeCDF	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-2,3,4,7,8-PeCDF	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,4,7,8-HxCDD	*60*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,6,7,8-HxCDD	*67*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,4,7,8-HxCDF	*69*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,6,7,8-HxCDF	*76*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-2,3,4,6,7,8-HxCDF	*76*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,7,8,9-HxCDF	*71*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*62*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*63*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*73*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-OCDD	*65*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*
13C-OCDF	*73*		*40 - 135*	*06/28/23 10:01*	*07/06/23 05:38*	*1*

Lab Sample ID: LCS 320-686569/2-A
Matrix: Solid
Analysis Batch: 688366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 686569

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,3,7,8-TCDD	20.0	20.54		pg/g		103	73 - 141
2,3,7,8-TCDF	20.0	21.14		pg/g		106	71 - 153
1,2,3,7,8-PeCDD	100	101.0		pg/g		101	77 - 126
1,2,3,7,8-PeCDF	100	102.1		pg/g		102	72 - 128
2,3,4,7,8-PeCDF	100	95.04		pg/g		95	72 - 127
1,2,3,4,7,8-HxCDD	100	99.24		pg/g		99	73 - 126
1,2,3,6,7,8-HxCDD	100	101.4		pg/g		101	76 - 142
1,2,3,7,8,9-HxCDD	100	115.7		pg/g		116	70 - 136
1,2,3,4,7,8-HxCDF	100	94.88		pg/g		95	73 - 127
1,2,3,6,7,8-HxCDF	100	97.88		pg/g		98	77 - 126
1,2,3,7,8,9-HxCDF	100	96.86		pg/g		97	77 - 125
2,3,4,6,7,8-HxCDF	100	97.81		pg/g		98	77 - 126
1,2,3,4,6,7,8-HpCDD	100	101.0		pg/g		101	79 - 121
1,2,3,4,6,7,8-HpCDF	100	100.8		pg/g		101	78 - 138
1,2,3,4,7,8,9-HpCDF	100	92.83		pg/g		93	76 - 123
OCDD	200	208.4		pg/g		104	76 - 136
OCDF	200	199.7		pg/g		100	75 - 130

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*66*		*40 - 135*
13C-2,3,7,8-TCDF	*71*		*40 - 135*
13C-1,2,3,7,8-PeCDD	*63*		*40 - 135*

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-686569/2-A
Matrix: Solid
Analysis Batch: 688366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 686569

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-1,2,3,7,8-PeCDF	70		40 - 135
13C-2,3,4,7,8-PeCDF	70		40 - 135
13C-1,2,3,4,7,8-HxCDD	61		40 - 135
13C-1,2,3,6,7,8-HxCDD	66		40 - 135
13C-1,2,3,4,7,8-HxCDF	67		40 - 135
13C-1,2,3,6,7,8-HxCDF	71		40 - 135
13C-2,3,4,6,7,8-HxCDF	77		40 - 135
13C-1,2,3,7,8,9-HxCDF	74		40 - 135
13C-1,2,3,4,6,7,8-HpCDD	64		40 - 135
13C-1,2,3,4,6,7,8-HpCDF	62		40 - 135
13C-1,2,3,4,7,8,9-HpCDF	74		40 - 135
13C-OCDD	66		40 - 135
13C-OCDF	76		40 - 135

Lab Sample ID: LCSD 320-686569/3-A
Matrix: Solid
Analysis Batch: 688366

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 686569

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,3,7,8-TCDD			20.0	21.48		pg/g		107	73 - 141	4	20
2,3,7,8-TCDF			20.0	20.58		pg/g		103	71 - 153	3	20
1,2,3,7,8-PeCDD			100	100.7		pg/g		101	77 - 126	0	20
1,2,3,7,8-PeCDF			100	99.31		pg/g		99	72 - 128	3	20
2,3,4,7,8-PeCDF			100	93.99		pg/g		94	72 - 127	1	20
1,2,3,4,7,8-HxCDD			100	92.06		pg/g		92	73 - 126	8	20
1,2,3,6,7,8-HxCDD			100	107.1		pg/g		107	76 - 142	5	20
1,2,3,7,8,9-HxCDD			100	111.6		pg/g		112	70 - 136	4	20
1,2,3,4,7,8-HxCDF			100	91.89		pg/g		92	73 - 127	3	20
1,2,3,6,7,8-HxCDF			100	98.46		pg/g		98	77 - 126	1	20
1,2,3,7,8,9-HxCDF			100	99.27		pg/g		99	77 - 125	2	20
2,3,4,6,7,8-HxCDF			100	97.06		pg/g		97	77 - 126	1	20
1,2,3,4,6,7,8-HpCDD			100	97.16		pg/g		97	79 - 121	4	20
1,2,3,4,6,7,8-HpCDF			100	100.4		pg/g		100	78 - 138	0	20
1,2,3,4,7,8,9-HpCDF			100	88.01		pg/g		88	76 - 123	5	20
OCDD			200	205.6		pg/g		103	76 - 136	1	20
OCDF			200	197.7		pg/g		99	75 - 130	1	20

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C-2,3,7,8-TCDD	63		40 - 135
13C-2,3,7,8-TCDF	70		40 - 135
13C-1,2,3,7,8-PeCDD	61		40 - 135
13C-1,2,3,7,8-PeCDF	68		40 - 135
13C-2,3,4,7,8-PeCDF	68		40 - 135
13C-1,2,3,4,7,8-HxCDD	60		40 - 135
13C-1,2,3,6,7,8-HxCDD	62		40 - 135
13C-1,2,3,4,7,8-HxCDF	68		40 - 135
13C-1,2,3,6,7,8-HxCDF	72		40 - 135
13C-2,3,4,6,7,8-HxCDF	74		40 - 135
13C-1,2,3,7,8,9-HxCDF	71		40 - 135

Method: 8290A - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-686569/3-A
Matrix: Solid
Analysis Batch: 688366

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 686569

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*64*		*40 - 135*
13C-1,2,3,4,6,7,8-HpCDF	*60*		*40 - 135*
13C-1,2,3,4,7,8,9-HpCDF	*75*		*40 - 135*
13C-OCDD	*67*		*40 - 135*
13C-OCDF	*75*		*40 - 135*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-344795/1-A ^5
Matrix: Solid
Analysis Batch: 345410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 344795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10.0	2.86	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Arsenic	ND		3.00	1.39	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Barium	0.6625	J	3.00	0.142	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Beryllium	ND		0.500	0.0690	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Cadmium	ND		0.500	0.164	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Chromium	0.5125	J	1.00	0.186	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Cobalt	ND		1.00	0.206	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Copper	ND		2.00	0.958	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Lead	ND		2.00	0.409	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Molybdenum	ND		2.00	0.515	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Nickel	ND		2.00	0.362	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Selenium	ND		3.00	1.22	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Silver	ND		1.50	0.144	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Thallium	ND		10.0	2.11	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Vanadium	ND		1.00	0.168	mg/Kg		07/12/23 08:38	07/13/23 15:46	5
Zinc	ND		5.00	1.16	mg/Kg		07/12/23 08:38	07/13/23 15:46	5

Lab Sample ID: LCS 570-344795/2-A ^5
Matrix: Solid
Analysis Batch: 345410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 344795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	49.5	58.51		mg/Kg		118	80 - 120
Arsenic	49.5	47.08		mg/Kg		95	80 - 120
Barium	49.5	47.54		mg/Kg		96	80 - 120
Beryllium	49.5	48.02		mg/Kg		97	80 - 120
Cadmium	49.5	47.71		mg/Kg		96	80 - 120
Chromium	49.5	48.21		mg/Kg		97	80 - 120
Cobalt	49.5	47.43		mg/Kg		96	80 - 120
Copper	49.5	47.54		mg/Kg		96	80 - 120
Lead	49.5	47.23		mg/Kg		95	80 - 120
Molybdenum	49.5	49.69		mg/Kg		100	80 - 120
Nickel	49.5	47.90		mg/Kg		97	80 - 120
Selenium	49.5	44.65		mg/Kg		90	80 - 120
Silver	24.8	23.68		mg/Kg		96	80 - 120
Thallium	49.5	46.47		mg/Kg		94	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-344795/2-A ^5
Matrix: Solid
Analysis Batch: 345410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 344795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vanadium	49.5	47.62		mg/Kg		96	80 - 120
Zinc	49.5	47.45		mg/Kg		96	80 - 120

Lab Sample ID: LCSD 570-344795/3-A ^5
Matrix: Solid
Analysis Batch: 345410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 344795

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	49.3	59.25		mg/Kg		120	80 - 120	1	20
Arsenic	49.3	46.00		mg/Kg		93	80 - 120	2	20
Barium	49.3	46.26		mg/Kg		94	80 - 120	3	20
Beryllium	49.3	46.82		mg/Kg		95	80 - 120	3	20
Cadmium	49.3	46.95		mg/Kg		95	80 - 120	2	20
Chromium	49.3	46.65		mg/Kg		95	80 - 120	3	20
Cobalt	49.3	46.32		mg/Kg		94	80 - 120	2	20
Copper	49.3	46.31		mg/Kg		94	80 - 120	3	20
Lead	49.3	46.51		mg/Kg		94	80 - 120	2	20
Molybdenum	49.3	48.61		mg/Kg		99	80 - 120	2	20
Nickel	49.3	46.45		mg/Kg		94	80 - 120	3	20
Selenium	49.3	43.47		mg/Kg		88	80 - 120	3	20
Silver	24.6	23.09		mg/Kg		94	80 - 120	3	20
Thallium	49.3	44.31		mg/Kg		90	80 - 120	5	20
Vanadium	49.3	46.34		mg/Kg		94	80 - 120	3	20
Zinc	49.3	46.18		mg/Kg		94	80 - 120	3	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-345092/1-A
Matrix: Solid
Analysis Batch: 345403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 345092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0850	0.0327	mg/Kg		07/12/23 19:34	07/13/23 13:49	1

Lab Sample ID: LCS 570-345092/2-A
Matrix: Solid
Analysis Batch: 345403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 345092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.377	0.3806		mg/Kg		101	80 - 120

Lab Sample ID: LCSD 570-345092/3-A
Matrix: Solid
Analysis Batch: 345403

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 345092

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.377	0.3832		mg/Kg		102	80 - 120	1	10

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 570-345094/1-A
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 345094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0833	0.0320	mg/Kg		07/12/23 19:36	07/13/23 15:11	1

Lab Sample ID: LCS 570-345094/2-A
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 345094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.408	0.4217		mg/Kg		103	80 - 120

Lab Sample ID: LCSD 570-345094/3-A
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 345094

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.392	0.3927		mg/Kg		100	80 - 120	7	10

Lab Sample ID: 570-142883-9 MS
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: JBRA-03-1.5-2.0
Prep Type: Total/NA
Prep Batch: 345094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.605	0.5981		mg/Kg	☼	99	80 - 120

Lab Sample ID: 570-142883-9 MSD
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: JBRA-03-1.5-2.0
Prep Type: Total/NA
Prep Batch: 345094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.570	0.5801		mg/Kg	☼	102	80 - 120	3	20

Lab Sample ID: MB 570-345096/1-A
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 345096

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0801	0.0308	mg/Kg		07/12/23 19:37	07/13/23 14:04	1

Lab Sample ID: LCS 570-345096/2-A
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 345096

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.400	0.4304		mg/Kg		108	80 - 120

Lab Sample ID: LCSD 570-345096/3-A
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 345096

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.408	0.4752		mg/Kg		116	80 - 120	10	10

Method: 7471A - Mercury (CVAA)

Lab Sample ID: 570-142883-8 MS
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: JBRA-03-0.0-0.5
Prep Type: Total/NA
Prep Batch: 345096

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.437	0.5025		mg/Kg	☼	115	80 - 120

Lab Sample ID: 570-142883-8 MSD
Matrix: Solid
Analysis Batch: 345408

Client Sample ID: JBRA-03-0.0-0.5
Prep Type: Total/NA
Prep Batch: 345096

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.446	0.5051		mg/Kg	☼	113	80 - 120	1	20

Method: Moisture - Percent Moisture

Lab Sample ID: 570-142883-1 DU
Matrix: Solid
Analysis Batch: 343001

Client Sample ID: JBRA-01-0.0-0.5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	10.3	H	10.5		%		1	10

GC/MS VOA

Prep Batch: 340377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	5030C	
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	5030C	
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	5030C	
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	5030C	
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	5030C	
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	5030C	
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	5030C	
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	5030C	
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	5030C	
MB 570-340377/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 570-340377/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 570-340377/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 340389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	8260B	340377
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	8260B	340377
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	8260B	340377
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	8260B	340377
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	8260B	340377
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	8260B	340377
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	8260B	340377
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	8260B	340377
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	8260B	340377
MB 570-340377/3-A	Method Blank	Total/NA	Solid	8260B	340377
LCS 570-340377/1-A	Lab Control Sample	Total/NA	Solid	8260B	340377
LCSD 570-340377/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	340377

GC/MS Semi VOA

Prep Batch: 341418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	3546	
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	3546	
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	3546	
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	3546	
MB 570-341418/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-341418/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-341418/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 342648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-341418/1-A	Method Blank	Total/NA	Solid	8270C	341418
LCS 570-341418/2-A	Lab Control Sample	Total/NA	Solid	8270C	341418
LCSD 570-341418/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C	341418

Analysis Batch: 343076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	8270C	341418
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	8270C	341418
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	8270C	341418

GC/MS Semi VOA (Continued)

Analysis Batch: 343076 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	8270C	341418
MB 570-341418/1-A	Method Blank	Total/NA	Solid	8270C	341418

Prep Batch: 343491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	3546	
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	3546	
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	3546	
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	3546	
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	3546	
MB 570-343491/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-343491/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-343491/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-142883-4 MS	JBRA-02-0.0-0.5	Total/NA	Solid	3546	
570-142883-4 MSD	JBRA-02-0.0-0.5	Total/NA	Solid	3546	

Analysis Batch: 343783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	8270C	343491
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	8270C	343491
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	8270C	343491
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	8270C	343491
MB 570-343491/1-A	Method Blank	Total/NA	Solid	8270C	343491
LCS 570-343491/2-A	Lab Control Sample	Total/NA	Solid	8270C	343491
LCSD 570-343491/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C	343491
570-142883-4 MS	JBRA-02-0.0-0.5	Total/NA	Solid	8270C	343491
570-142883-4 MSD	JBRA-02-0.0-0.5	Total/NA	Solid	8270C	343491

Analysis Batch: 344278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	8270C	343491
MB 570-343491/1-A	Method Blank	Total/NA	Solid	8270C	343491

Specialty Organics

Prep Batch: 686569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1 - RA	JBRA-01-0.0-0.5	Total/NA	Solid	8290	
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	8290	
570-142883-2 - RA	JBRA-01-1.5-2.0	Total/NA	Solid	8290	
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	8290	
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	8290	
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	8290	
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	8290	
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	8290	
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	8290	
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	8290	
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	8290	
MB 320-686569/1-A	Method Blank	Total/NA	Solid	8290	
LCS 320-686569/2-A	Lab Control Sample	Total/NA	Solid	8290	
LCSD 320-686569/3-A	Lab Control Sample Dup	Total/NA	Solid	8290	

Specialty Organics

Analysis Batch: 688366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	8290A	686569
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	8290A	686569
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	8290A	686569
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	8290A	686569
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	8290A	686569
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	8290A	686569
MB 320-686569/1-A	Method Blank	Total/NA	Solid	8290A	686569
LCS 320-686569/2-A	Lab Control Sample	Total/NA	Solid	8290A	686569
LCSD 320-686569/3-A	Lab Control Sample Dup	Total/NA	Solid	8290A	686569

Analysis Batch: 688368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	8290A	686569
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	8290A	686569
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	8290A	686569

Analysis Batch: 688761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1 - RA	JBRA-01-0.0-0.5	Total/NA	Solid	8290A	686569
570-142883-2 - RA	JBRA-01-1.5-2.0	Total/NA	Solid	8290A	686569

Metals

Prep Batch: 344795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	3050B	
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	3050B	
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	3050B	
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	3050B	
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	3050B	
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	3050B	
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	3050B	
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	3050B	
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	3050B	
MB 570-344795/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 570-344795/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-344795/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	3050B	

Prep Batch: 345092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	7471A	
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	7471A	
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	7471A	
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	7471A	
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	7471A	
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	7471A	
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	7471A	
MB 570-345092/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-345092/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-345092/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Metals

Prep Batch: 345094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	7471A	
MB 570-345094/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-345094/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-345094/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-142883-9 MS	JBRA-03-1.5-2.0	Total/NA	Solid	7471A	
570-142883-9 MSD	JBRA-03-1.5-2.0	Total/NA	Solid	7471A	

Prep Batch: 345096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	7471A	
MB 570-345096/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-345096/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-345096/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
570-142883-8 MS	JBRA-03-0.0-0.5	Total/NA	Solid	7471A	
570-142883-8 MSD	JBRA-03-0.0-0.5	Total/NA	Solid	7471A	

Analysis Batch: 345403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	7471A	345092
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	7471A	345092
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	7471A	345092
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	7471A	345092
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	7471A	345092
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	7471A	345092
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	7471A	345092
MB 570-345092/1-A	Method Blank	Total/NA	Solid	7471A	345092
LCS 570-345092/2-A	Lab Control Sample	Total/NA	Solid	7471A	345092
LCSD 570-345092/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	345092

Analysis Batch: 345408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	7471A	345096
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	7471A	345094
MB 570-345094/1-A	Method Blank	Total/NA	Solid	7471A	345094
MB 570-345096/1-A	Method Blank	Total/NA	Solid	7471A	345096
LCS 570-345094/2-A	Lab Control Sample	Total/NA	Solid	7471A	345094
LCS 570-345096/2-A	Lab Control Sample	Total/NA	Solid	7471A	345096
LCSD 570-345094/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	345094
LCSD 570-345096/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	345096
570-142883-8 MS	JBRA-03-0.0-0.5	Total/NA	Solid	7471A	345096
570-142883-8 MSD	JBRA-03-0.0-0.5	Total/NA	Solid	7471A	345096
570-142883-9 MS	JBRA-03-1.5-2.0	Total/NA	Solid	7471A	345094
570-142883-9 MSD	JBRA-03-1.5-2.0	Total/NA	Solid	7471A	345094

Analysis Batch: 345410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-344795/1-A ^5	Method Blank	Total/NA	Solid	6010B	344795
LCS 570-344795/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	344795
LCSD 570-344795/3-A ^5	Lab Control Sample Dup	Total/NA	Solid	6010B	344795

QC Association Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Metals

Analysis Batch: 345519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	6010B	344795
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	6010B	344795
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	6010B	344795
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	6010B	344795
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	6010B	344795
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	6010B	344795
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	6010B	344795
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	6010B	344795
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	6010B	344795

General Chemistry

Analysis Batch: 343001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-142883-1	JBRA-01-0.0-0.5	Total/NA	Solid	Moisture	
570-142883-2	JBRA-01-1.5-2.0	Total/NA	Solid	Moisture	
570-142883-3	JBRA-01-3.0-3.5	Total/NA	Solid	Moisture	
570-142883-4	JBRA-02-0.0-0.5	Total/NA	Solid	Moisture	
570-142883-5	JBRA-02-1.5-2.0	Total/NA	Solid	Moisture	
570-142883-6	JBRA-02-3.5-4.0	Total/NA	Solid	Moisture	
570-142883-7	JBRA-02-5.5-6.0	Total/NA	Solid	Moisture	
570-142883-8	JBRA-03-0.0-0.5	Total/NA	Solid	Moisture	
570-142883-9	JBRA-03-1.5-2.0	Total/NA	Solid	Moisture	
570-142883-1 DU	JBRA-01-0.0-0.5	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Client Sample ID: JBRA-01-0.0-0.5

Date Collected: 06/22/23 09:20
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 14:31	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			20.63 g	2 mL	343491	07/06/23 17:24	E5RH	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	344278	07/11/23 00:10	UX77	EET CAL 4
	Instrument ID: GCMSTT									
Total/NA	Prep	8290	RA		10.49 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A	RA	1	1 uL	1 uL	688761	07/07/23 11:19	CB	EET SAC
	Instrument ID: 11D2									
Total/NA	Prep	8290			10.49 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688366	07/06/23 10:24	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			1.98 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 20:57	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.51 g	50 mL	345092	07/12/23 19:34	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345403	07/13/23 14:24	C0YH	EET CAL 4
	Instrument ID: HG7									
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4
	Instrument ID: BAL87									

Client Sample ID: JBRA-01-1.5-2.0

Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.97 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 14:52	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			20.09 g	2 mL	343491	07/06/23 17:24	E5RH	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343783	07/08/23 05:24	UX77	EET CAL 4
	Instrument ID: GCMS83									
Total/NA	Prep	8290	RA		10.08 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A	RA	1	1 uL	1 uL	688761	07/07/23 12:02	CB	EET SAC
	Instrument ID: 11D2									
Total/NA	Prep	8290			10.08 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688366	07/06/23 11:12	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			1.96 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:00	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.51 g	50 mL	345092	07/12/23 19:34	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345403	07/13/23 14:26	C0YH	EET CAL 4
	Instrument ID: HG7									

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Client Sample ID: JBRA-01-1.5-2.0

Date Collected: 06/22/23 09:30
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4

Client Sample ID: JBRA-01-3.0-3.5

Date Collected: 06/22/23 10:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			4.91 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 15:13	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			19.97 g	2 mL	341418	06/28/23 15:25	USUL	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343076	07/06/23 01:14	UX77	EET CAL 4
	Instrument ID: GCMSCCC									
Total/NA	Prep	8290			10.41 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688366	07/06/23 11:59	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			2.00 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:02	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.51 g	50 mL	345092	07/12/23 19:34	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345403	07/13/23 14:28	C0YH	EET CAL 4
	Instrument ID: HG7									
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4
	Instrument ID: BAL87									

Client Sample ID: JBRA-02-0.0-0.5

Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.18 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 15:34	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			20.24 g	2 mL	343491	07/06/23 17:24	E5RH	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343783	07/08/23 05:47	UX77	EET CAL 4
	Instrument ID: GCMS83									
Total/NA	Prep	8290			10.17 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688366	07/06/23 12:47	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			2.00 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:05	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.49 g	50 mL	345092	07/12/23 19:34	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345403	07/13/23 14:34	C0YH	EET CAL 4
	Instrument ID: HG7									

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Client Sample ID: JBRA-02-0.0-0.5

Date Collected: 06/22/23 10:05
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4

Client Sample ID: JBRA-02-1.5-2.0

Date Collected: 06/22/23 10:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.02 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 15:56	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			20.08 g	2 mL	341418	06/28/23 15:25	USUL	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343076	07/06/23 01:56	UX77	EET CAL 4
	Instrument ID: GCMSCCC									
Total/NA	Prep	8290			10.37 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688366	07/06/23 13:34	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			1.97 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:07	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.52 g	50 mL	345092	07/12/23 19:34	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345403	07/13/23 14:36	C0YH	EET CAL 4
	Instrument ID: HG7									
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4
	Instrument ID: BAL87									

Client Sample ID: JBRA-02-3.5-4.0

Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 16:17	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			20.46 g	2 mL	343491	07/06/23 17:24	E5RH	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343783	07/08/23 06:09	UX77	EET CAL 4
	Instrument ID: GCMS83									
Total/NA	Prep	8290			10.04 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688366	07/06/23 14:22	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			2.04 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:09	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.50 g	50 mL	345092	07/12/23 19:34	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345403	07/13/23 14:38	C0YH	EET CAL 4
	Instrument ID: HG7									

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Client Sample ID: JBRA-02-3.5-4.0

Date Collected: 06/22/23 10:25
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4

Client Sample ID: JBRA-02-5.5-6.0

Date Collected: 06/22/23 10:40
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.01 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 16:38	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			20.57 g	2 mL	343491	07/06/23 17:24	E5RH	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343783	07/08/23 06:31	UX77	EET CAL 4
	Instrument ID: GCMS83									
Total/NA	Prep	8290			10.35 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688368	07/06/23 18:29	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			1.99 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:12	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.49 g	50 mL	345092	07/12/23 19:34	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345403	07/13/23 14:40	C0YH	EET CAL 4
	Instrument ID: HG7									
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4
	Instrument ID: BAL87									

Client Sample ID: JBRA-03-0.0-0.5

Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.03 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 16:59	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			19.98 g	2 mL	341418	06/28/23 15:25	USUL	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343076	07/06/23 02:59	UX77	EET CAL 4
	Instrument ID: GCMSCCC									
Total/NA	Prep	8290			10.29 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688368	07/06/23 19:17	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			2.00 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:19	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.52 g	50 mL	345096	07/12/23 19:37	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345408	07/13/23 14:10	C0YH	EET CAL 4
	Instrument ID: HG8									

Lab Chronicle

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Client Sample ID: JBRA-03-0.0-0.5

Date Collected: 06/22/23 11:00
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4

Client Sample ID: JBRA-03-1.5-2.0

Date Collected: 06/22/23 11:10
Date Received: 06/24/23 09:45

Lab Sample ID: 570-142883-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			5.13 g	5 mL	340377	06/26/23 08:44	AH8S	EET CAL 4
Total/NA	Analysis	8260B		1	5 g	5 mL	340389	06/26/23 17:20	U4JL	EET CAL 4
	Instrument ID: GCMSQ									
Total/NA	Prep	3546			20.03 g	2 mL	341418	06/28/23 15:25	USUL	EET CAL 4
Total/NA	Analysis	8270C		1	1 mL	1 mL	343076	07/06/23 03:20	UX77	EET CAL 4
	Instrument ID: GCMSCCC									
Total/NA	Prep	8290			10.46 g	20.0 uL	686569	06/28/23 10:01	CB	EET SAC
Total/NA	Analysis	8290A		1	1 Sample	1 Sample	688368	07/06/23 20:04	GRB	EET SAC
	Instrument ID: 12D5									
Total/NA	Prep	3050B			2.01 g	50 mL	344795	07/12/23 08:38	GYR8	EET CAL 4
Total/NA	Analysis	6010B		5			345519	07/13/23 21:21	VZ0K	EET CAL 4
	Instrument ID: ICP11									
Total/NA	Prep	7471A			0.50 g	50 mL	345094	07/12/23 19:36	CS5Z	EET CAL 4
Total/NA	Analysis	7471A		1			345408	07/13/23 15:16	C0YH	EET CAL 4
	Instrument ID: HG8									
Total/NA	Analysis	Moisture		1			343001	07/05/23 11:40	B4QL	EET CAL 4
	Instrument ID: BAL87									

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Accreditation/Certification Summary

Client: Jacobs Engineering Group, Inc.
Job ID: 570-142883-1
Project/Site: Klamath Falls Burn Pit

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4175	02-02-24

Laboratory: Eurofins Sacramento

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	4040	01-29-24

Method Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CAL 4
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	EET CAL 4
8290A	Dioxins and Furans (HRGC/HRMS)	SW846	EET SAC
6010B	Metals (ICP)	SW846	EET CAL 4
7471A	Mercury (CVAA)	SW846	EET CAL 4
Moisture	Percent Moisture	EPA	EET CAL 4
3050B	Preparation, Metals	SW846	EET CAL 4
3546	Microwave Extraction	SW846	EET CAL 4
5030C	Purge and Trap	SW846	EET CAL 4
7471A	Preparation, Mercury	SW846	EET CAL 4
8290	Soxhlet Extraction of Dioxins and Furans	SW846	EET SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Jacobs Engineering Group, Inc.
Project/Site: Klamath Falls Burn Pit

Job ID: 570-142883-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-142883-1	JBRA-01-0.0-0.5	Solid	06/22/23 09:20	06/24/23 09:45
570-142883-2	JBRA-01-1.5-2.0	Solid	06/22/23 09:30	06/24/23 09:45
570-142883-3	JBRA-01-3.0-3.5	Solid	06/22/23 10:00	06/24/23 09:45
570-142883-4	JBRA-02-0.0-0.5	Solid	06/22/23 10:05	06/24/23 09:45
570-142883-5	JBRA-02-1.5-2.0	Solid	06/22/23 10:10	06/24/23 09:45
570-142883-6	JBRA-02-3.5-4.0	Solid	06/22/23 10:25	06/24/23 09:45
570-142883-7	JBRA-02-5.5-6.0	Solid	06/22/23 10:40	06/24/23 09:45
570-142883-8	JBRA-03-0.0-0.5	Solid	06/22/23 11:00	06/24/23 09:45
570-142883-9	JBRA-03-1.5-2.0	Solid	06/22/23 11:10	06/24/23 09:45

Eurofins Calscience
2841 Dow Ave., Suite 100
Tustin CA 92780
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

eurofins | Calscier

Loc: 570
142883

Client Information	Sampler: Kodey Eley	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Kodey Eley	Phone: 253-334-6968	E-Mail: Kodey.Eley@Jacobs.com		Page:
Company: Jacobs				Job #:
Address: 1100 112th Ave NE Suite 500	Due Date Requested:			
City: Bellevue	TAT Requested (days): Std TAT			
State, Zip: WA 98004				
Phone:	PO #:			
Email:	WO #:			
Project Name: Klamath Falls Burn Pit	Project #: D3514100			
Site: Klamath - JC Boyle	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Y=s or No)	Perform	8290	6010/7471	8270	8260	STLP/TCLP - Hold	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
JBRA-01-0.0-0.5	6/22/23	0920	G	S			X	X	X	X			Lvl IV Data package
JBRA-01-1.5-2.0	6/22/23	0930	G	S			X	X	X	X			
JBRA-01-3.0-3.5	6/22/23	1000	G	S			X	X	X	X			
JBRA-02-0.0-0.5	6/22/23	1005	G	S			X	X	X	X			
JBRA-02-1.5-2.0	6/22/23	1010	G	S			X	X	X	X			
JBRA-02-3.5-4.0	6/22/23	1025	G	S			X	X	X	X			
JBRA-02-5.5-6.0	6/22/23	1040	G	S			X	X	X	X			
JBRA-03-0.0-0.5	6/22/23	1100	G	S			X	X	X	X			
JBRA-03-1.5-2.0	6/22/23	1110	G	S			X	X	X	X			

570-142883 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kodey Eley	6/23/22 0900	Jacobs	Fedex		
Relinquished by: FEDEX	Date/Time:	Company	Received by:	Date/Time: 6/24/23 9:45	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.0/3.2 2.9/3.1 3.1/3.3 SCG

ORIGIN ID:MFRA (253) 334-6968
CH2M HILL
1100 NE CIRCLE BLVD STE 300

CORVALLIS, OR 97330
UNITED STATES US

SHIP DATE: 23JUN23
ACTWGT: 41.50 LB
CAD: 6994515/SSFE2422
DIMS: 24x13x14 IN

BILL THIRD PARTY

TO EUROFINS CALSCIENCE

2841 DOW AVE STE 100

TUSTIN CA 92780
(949) 260-1022 REF:
INV:
PO: DEPT:

RT 460
ST 21
7
12:00
A
5361
06.24

FedEx Express

E

3 of 3
MPS# 0263 7802 6657 5361
Mstr# 7802 6657 5340 0201

SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR
92780
CA-US SNA

WO DTHA

570-142883 Waybill

t lift using this tag.

(253) 334-6968
BLVD STE 300
97330
S

SHIP DATE: 23JUN23
ACTWGT: 42.95 LB
CAD: 6994515/SSFE2422
DIMS: 24x13x14 IN

BILL THIRD PARTY

S CALSCIENCE

AVE STE 100

CA 92780
REF:
DEPT:

FedEx Express

E

3
6657 5350
6657 5340 0201

SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR
92780
CA-US SNA

DTHA

SDR

RT 460
21
7
12:00
A
5340
06.24

DR

ry 151966 10/04 MWI
D: 0343492/CAFE3708

SHIP DATE: 23JUN23
ACTWGT: 36.20 LB
CAD: 6994515/SSFE2422
DIMS: 24x13x14 IN

BILL THIRD PARTY

NCE

100

DEPT:

FedEx Express

E

SATURDAY 12:00P
PRIORITY OVERNIGHT
DSR AHS
92780
CA-US SNA

A

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Burley, Don	Carrier Tracking No(s):	COC No: 570-239138.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donald.Burley@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): NELAP - Oregon		Job #: 570-142883-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 7/17/2023			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Klamath Falls Burn Pit	Project #: 57015785			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8290A/8290_P_Sox 17 Isomers & Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
JBRA-01-0.0-0.5 (570-142883-1)	6/22/23	09:20 Pacific		Solid			X	1	
JBRA-01-1.5-2.0 (570-142883-2)	6/22/23	09:30 Pacific		Solid			X	1	
JBRA-01-3.0-3.5 (570-142883-3)	6/22/23	10:00 Pacific		Solid			X	1	
JBRA-02-0.0-0.5 (570-142883-4)	6/22/23	10:05 Pacific		Solid			X	1	
JBRA-02-1.5-2.0 (570-142883-5)	6/22/23	10:10 Pacific		Solid			X	1	
JBRA-02-3.5-4.0 (570-142883-6)	6/22/23	10:25 Pacific		Solid			X	1	
JBRA-02-5.5-6.0 (570-142883-7)	6/22/23	10:40 Pacific		Solid			X	1	
JBRA-03-0.0-0.5 (570-142883-8)	6/22/23	11:00 Pacific		Solid			X	1	
JBRA-03-1.5-2.0 (570-142883-9)	6/22/23	11:10 Pacific		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 6/26/23 1345	Company	Received by:	Date/Time: 6/27/23 930	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: Seal		Cooler Temperature(s) °C and Other Remarks: 3.6		

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc.

Job Number: 570-142883-1

Login Number: 142883
List Number: 1
Creator: Yu, Tiffany

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Jacobs Engineering Group, Inc. Job Number: 570-142883-1

Login Number: 142883
List Number: 2
Creator: Simmons, Jason C

List Source: Eurofins Sacramento
List Creation: 06/27/23 04:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	Seal
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Table C-1. J. C. Boyle Fire Ring Analytical Results

					Location	**JBRA-01**			**JBRA-02**				**JBRA-03**	
					Sample Date	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023
					Depth Interval	0 - 0.5	1.5 - 2	3 - 3.5	0 - 0.5	1.5 - 2	3.5 - 4	5.5 - 6	0 - 0.5	1.5 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Ecological Receptors**	**Human Health**	**Leaching to Groundwater**									
2-Butanone	78-93-3	mg/kg	2700	27000		0.0051 U	0.0071 U	0.0066 U	0.0059 U	0.0071 U	0.0072 U	0.0068 U	0.0052 U	0.0065 U
2-Chlorotoluene	95-49-8	mg/kg		1600		0.00028 U	0.0004 U	0.00037 U	0.00033 U	0.0004 U	0.0004 U	0.00038 U	0.00029 U	0.00036 U
2-Hexanone	591-78-6	mg/kg	0.36	200		0.0034 U	0.0048 U	0.0045 U	0.004 U	0.0048 U	0.0049 U	0.0046 U	0.0035 U	0.0044 U
4-Chlorotoluene	106-43-4	mg/kg		1600		0.00027 U	0.00038 U	0.00035 U	0.00032 U	0.00038 U	0.00039 U	0.00036 U	0.00028 U	0.00035 U
4-Methyl-2-Pentanone	108-10-1	mg/kg	9.7	33000		0.0033 U	0.0046 U	0.0043 U	0.0038 U	0.0046 U	0.0046 U	0.0044 U	0.0034 U	0.0042 U
Acetone	67-64-1	mg/kg	1.2	61000		0.011 U	0.015 U	0.014 U	0.013 U	0.015 U	0.016 U	0.015 U	0.011 U	0.014 U
Benzene	71-43-2	mg/kg	24	8.2	0.023	0.00029 U	0.0004 U	0.00038 U	0.00034 U	0.00041 U	0.00041 U	0.00039 U	0.0003 U	0.00037 U
Bromobenzene	108-86-1	mg/kg		290		0.00023 U	0.00033 U	0.00031 U	0.00027 U	0.00033 U	0.00033 U	0.00031 U	0.00024 U	0.0003 U
Bromochloromethane	74-97-5	mg/kg		150		0.0005 U	0.0007 U	0.00065 U	0.00058 U	0.0007 U	0.00071 U	0.00067 U	0.00051 U	0.00064 U
Bromodichloromethane	75-27-4	mg/kg		2.4	0.002	0.00036 U	0.00051 U	0.00048 U	0.00043 U	0.00051 U	0.00052 U	0.00049 U	0.00037 U	0.00047 U
Bromoform	75-25-2	mg/kg		57	0.046	0.0015 U	0.0021 U	0.0019 U	0.0017 U	0.0021 U	0.0021 U	0.002 U	0.0015 U	0.0019 U
Bromomethane	74-83-9	mg/kg		46	0.083	0.0074 U	0.01 U	0.0096 U	0.0086 U	0.01 U	0.01 U	0.0099 U	0.0076 U	0.0095 U
Carbon Disulfide	75-15-0	mg/kg	0.81	770		0.00045 U	0.00063 U	0.00059 U	0.00053 U	0.00063 U	0.00064 U	0.0006 U	0.00046 U	0.00058 U
Carbon tetrachloride	56-23-5	mg/kg	2	7.5	0.013	0.00034 U	0.00047 U	0.00044 U	0.00039 U	0.00047 U	0.00048 U	0.00045 U	0.00034 U	0.00043 U
Chlorobenzene	108-90-7	mg/kg	43	530	5.8	0.0003 U	0.00042 U	0.00039 U	0.00035 U	0.00042 U	0.00043 U	0.0004 U	0.00031 U	0.00039 U
Chlorodibromomethane	124-48-1	mg/kg		3.3	0.0024	0.00031 U	0.00043 U	0.0004 U	0.00036 U	0.00043 U	0.00043 U	0.00041 U	0.00031 U	0.00039 U
Chloroethane	75-00-3	mg/kg		160000	310	0.00083 U	0.0012 U	0.0011 U	0.00098 U	0.0012 U	0.0012 U	0.0011 U	0.00086 U	0.0011 U
Chloroform	67-66-3	mg/kg	8	3.9	0.0034	0.00066 U	0.00093 U	0.00086 U	0.00077 U	0.00093 U	0.00094 U	0.00088 U	0.00068 U	0.00085 U
Chloromethane	74-87-3	mg/kg		1400	2.2	0.0017 U	0.0024 U	0.0023 U	0.002 U	0.0024 U	0.0025 U	0.0023 U	0.0018 U	0.0022 U
cis-1,2-Dichloroethene	156-59-2	mg/kg	24	160	0.63	0.00038 U	0.00053 U	0.00049 U	0.00044 U	0.00053 U	0.00054 U	0.00051 U	0.00039 U	0.00049 U
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00039 U	0.00055 U	0.00051 U	0.00046 U	0.00055 U	0.00056 U	0.00052 U	0.0004 U	0.0005 U
Dibromomethane	74-95-3	mg/kg		24		0.00034 U	0.00048 U	0.00045 U	0.0004 U	0.00048 U	0.00049 U	0.00046 U	0.00035 U	0.00044 U
Dichlorodifluoromethane	75-71-8	mg/kg		87		0.00051 U	0.00071 U	0.00067 U	0.0006 U	0.00071 U	0.00072 U	0.00068 U	0.00052 U	0.00065 U
Dichloromethane	75-09-2	mg/kg	2.6	76	0.14	0.0035 U	0.0049 U	0.0046 U	0.0041 U	0.0049 U	0.005 U	0.0047 U	0.0036 U	0.0045 U
Ethylbenzene	100-41-4	mg/kg	0.27	34	0.22	0.00023 U	0.00032 U	0.0003 U	0.00027 U	0.00033 U	0.00033 U	0.00031 U	0.00024 U	0.0003 U
Isopropylbenzene	98-82-8	mg/kg		3500	96	0.00031 U	0.00043 U	0.0004 U	0.00036 U	0.00043 U	0.00044 U	0.00041 U	0.00032 U	0.0004 U
Methyl tert-butyl ether (MTBE)	1634-04-4	mg/kg		250	0.11	0.00021 U	0.0003 U	0.00028 U	0.00025 U	0.0003 U	0.0003 U	0.00028 U	0.00022 U	0.00027 U
Naphthalene	91-20-3	mg/kg	1	5.3	0.077	0.0044 U	0.0062 U	0.0058 U	0.0052 U	0.0062 U	0.0063 U	0.0059 U	0.0045 U	0.0057 U
n-Butylbenzene	104-51-8	mg/kg		3900		0.00024 U	0.00033 U	0.00031 U	0.00028 U	0.00033 U	0.00034 U	0.00032 U	0.00024 U	0.0003 U
n-Propylbenzene	103-65-1	mg/kg		3800		0.00029 U	0.00041 U	0.00038 U	0.00034 U	0.00041 U	0.00041 U	0.00039 U	0.0003 U	0.00038 U
p-Isopropyltoluene	99-87-6	mg/kg				0.00032 U	0.00044 U	0.00041 U	0.00037 U	0.00044 U	0.00045 U	0.00042 U	0.00032 U	0.00041 U
sec-Butylbenzene	135-98-8	mg/kg		7800		0.00031 U	0.00043 U	0.0004 U	0.00036 U	0.00043 U	0.00044 U	0.00041 U	0.00032 U	0.0004 U
Styrene	100-42-5	mg/kg	1.2	7900	170	0.00036 U	0.0005 U	0.00046 U	0.00042 U	0.0005 U	0.00051 U	0.00048 U	0.00037 U	0.00046 U
tert-Butylbenzene	98-06-6	mg/kg		7800		0.00029 U	0.0004 U	0.00037 U	0.00033 U	0.0004 U	0.00041 U	0.00038 U	0.00029 U	0.00037 U
Tetrachloroethene	127-18-4	mg/kg	0.18	220	0.46	0.00025 U	0.00035 U	0.00033 U	0.00029 U	0.00035 U	0.00036 U	0.00033 U	0.00026 U	0.00032 U
Toluene	108-88-3	mg/kg	23	5800	83	**0.00056 J**	0.00042 U	0.00039 U	0.00035 U	0.00042 U	0.00043 U	0.0004 U	0.00031 U	0.00039 U
trans-1,2-Dichloroethene	156-60-5	mg/kg	24	1600	7	0.00034 U	0.00047 U	0.00044 U	0.0004 U	0.00047 U	0.00048 U	0.00045 U	0.00035 U	0.00043 U
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00031 U	0.00044 U	0.00041 U	0.00037 U	0.00044 U	0.00045 U	0.00042 U	0.00032 U	0.0004 U
Trichloroethylene	79-01-6	mg/kg	42	0.94		0.00043 U	0.00061 U	0.00057 U	0.00051 U	0.00061 U	0.00062 U	0.00058 U	0.00045 U	0.00056 U
Trichlorofluoromethane	75-69-4	mg/kg	52	7600	61	0.00031 U	0.00043 U	0.0004 U	0.00036 U	0.00043 U	0.00043 U	0.00041 U	0.00031 U	0.00039 U
Vinyl Acetate	108-05-4	mg/kg		910		0.0044 U	0.0062 U	0.0057 U	0.0051 U	0.0062 U	0.0062 U	0.0059 U	0.0045 U	0.0056 U
Vinyl Chloride	75-01-4	mg/kg	0.12	0.36	0.00057	0.00042 U	0.0006 U	0.00055 U	0.0005 U	0.0006 U	0.0006 U	0.00057 U	0.00044 U	0.00055 U

Table C-1. J. C. Boyle Fire Ring Analytical Results

					Location	**JBRA-01**			**JBRA-02**				**JBRA-03**	
					Sample Date	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023
					Depth Interval	0 - 0.5	1.5 - 2	3 - 3.5	0 - 0.5	1.5 - 2	3.5 - 4	5.5 - 6	0 - 0.5	1.5 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Ecological Receptors**	**Human Health**	**Leaching to Groundwater**									
Xylene, o-	95-47-6	mg/kg	1.4	650		0.00029 U	0.0004 U	0.00037 U	0.00034 U	0.0004 U	0.00041 U	0.00038 U	0.00029 U	0.00037 U
Xylenes, m- & p-	179601-23-1	mg/kg	1.4	550		0.00053 U	0.00074 U	0.00069 U	0.00062 U	0.00075 U	0.00076 U	0.00071 U	0.00055 U	0.00068 U
SW8270C														
1,2,4-Trichlorobenzene	120-82-1	mg/kg	0.27	24		0.096 U	0.14 U	0.13 U	0.12 U	0.14 U	0.14 U	0.13 U	0.1 U	0.13 U
1,2-Dichlorobenzene	95-50-1	mg/kg	0.09	2200	36	0.08 U	0.12 U	0.11 U	0.1 U	0.12 U	0.12 U	0.11 U	0.086 U	0.11 U
1,3-Dichlorobenzene	541-73-1	mg/kg	0.08			0.075 U	0.11 U	0.1 U	0.093 U	0.11 U	0.11 U	0.1 U	0.08 U	0.1 U
1,4-Dichlorobenzene	106-46-7	mg/kg	0.89	8.1	0.057	0.077 U	0.11 U	0.1 U	0.095 U	0.11 U	0.11 U	0.1 U	0.082 U	0.1 U
1-Methylnaphthalene	90-12-0	mg/kg		18		**0.073 J**	0.056 U	0.052 U	0.049 U	0.057 U	0.057 U	0.053 U	0.042 U	0.054 U
2,4,5-Trichlorophenol	95-95-4	mg/kg	4	6300		0.076 U	0.11 U	0.1 U	0.095 U	0.11 U	0.11 U	0.1 U	0.082 U	0.1 U
2,4,6-Trichlorophenol	88-06-2	mg/kg	9.94	49	2.4	0.085 U	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.11 U	0.091 U	0.12 U
2,4-Dichlorophenol	120-83-2	mg/kg	0.05	190		0.11 U	0.16 U	0.15 U	0.14 U	0.16 U	0.16 U	0.15 U	0.12 U	0.15 U
2,4-Dimethylphenol	105-67-9	mg/kg	0.04	1300		0.049 U	0.071 U	0.065 U	0.061 U	0.071 U	0.071 U	0.066 U	0.053 U	0.067 U
2,4-Dinitrophenol	51-28-5	mg/kg	0.061	130		1.7 U	2.5 U	2.3 U	2.1 U	2.5 U	2.5 U	2.3 U	1.8 U	2.4 U
2,4-Dinitrotoluene	121-14-2	mg/kg	14	1.7		0.11 U	0.16 U	0.15 U	0.14 U	0.17 U	0.17 U	0.15 U	0.12 U	0.16 U
2,6-Dichlorophenol	87-65-0	mg/kg				0.07 U	0.1 U	0.094 U	0.087 U	0.1 U	0.1 U	0.095 U	0.075 U	0.096 U
2,6-Dinitrotoluene	606-20-2	mg/kg	4	0.36	0.0089	0.063 U	0.091 U	0.085 U	0.079 U	0.092 U	0.092 U	0.086 U	0.068 U	0.087 U
2-Chloronaphthalene	91-58-7	mg/kg		4800		0.061 U	0.088 U	0.082 U	0.076 U	0.09 U	0.089 U	0.083 U	0.066 U	0.084 U
2-Chlorophenol	95-57-8	mg/kg	0.39	390		0.11 U	0.15 U	0.14 U	0.13 U	0.16 U	0.15 U	0.14 U	0.11 U	0.15 U
2-Methylnaphthalene	91-57-6	mg/kg	16	240		**0.13 J**	0.089 U	0.082 U	0.077 U	0.09 U	0.089 U	0.083 U	0.066 U	0.084 U
2-Methylphenol	95-48-7	mg/kg	0.67	3200		0.1 U	0.15 U	0.14 U	0.13 U	0.15 U	0.15 U	0.14 U	0.11 U	0.14 U
2-Nitroaniline	88-74-4	mg/kg	5.3	630		0.07 U	0.1 U	0.094 U	0.088 U	0.1 U	0.1 U	0.095 U	0.075 U	0.096 U
2-Nitrophenol	88-75-5	mg/kg				0.12 U	0.17 U	0.16 U	0.15 U	0.17 U	0.17 U	0.16 U	0.13 U	0.16 U
3 & 4-Methylphenol (m,p-Cresols)	65794-96-9	mg/kg	0.69			0.23 U	0.34 U	0.31 U	0.29 U	0.34 U	0.34 U	0.32 U	0.25 U	0.32 U
3,3'-Dichlorobenzidine	91-94-1	mg/kg	0.03	1.2	0.17	0.88 U	1.3 U	1.2 U	1.1 U	1.3 U	1.3 U	1.2 U	0.94 U	1.2 U
3-Nitroaniline	99-09-2	mg/kg				0.13 U	0.19 U	0.18 U	0.16 U	0.19 U	0.19 U	0.18 U	0.14 U	0.18 U
4,6-Dinitro-2-methylphenol	534-52-1	mg/kg		5.1		1.1 U	1.5 U	1.4 U	1.3 U	1.5 U	1.5 U	1.4 U	1.1 U	1.4 U
4-Bromophenyl Phenyl Ether	101-55-3	mg/kg				0.064 U	0.091 U	0.085 U	0.079 U	0.093 U	0.092 U	0.086 U	0.068 U	0.087 U
4-Chloro-3-methylphenol	59-50-7	mg/kg		6300		0.091 U	0.13 U	0.12 U	0.11 U	0.13 U	0.13 U	0.12 U	0.098 U	0.12 U
4-Chloroaniline	106-47-8	mg/kg	1	2.7		0.078 U	0.11 U	0.1 U	0.097 U	0.11 U	0.11 U	0.11 U	0.084 U	0.11 U
4-Chlorophenyl Phenylether	7005-72-3	mg/kg				0.076 U	0.11 U	0.1 U	0.095 U	0.11 U	0.11 U	0.1 U	0.082 U	0.1 U
4-Nitroaniline	100-01-6	mg/kg		27		0.11 U	0.16 U	0.15 U	0.14 U	0.17 U	0.17 U	0.15 U	0.12 U	0.16 U
4-Nitrophenol	100-02-7	mg/kg				0.18 U	0.26 U	0.24 U	0.23 U	0.26 U	0.26 U	0.24 U	0.19 U	0.25 U
Acenaphthene	83-32-9	mg/kg	0.25	4700		0.058 U	0.084 U	0.078 U	0.073 U	0.085 U	0.084 U	0.079 U	0.062 U	0.08 U
Acenaphthylene	208-96-8	mg/kg	120			0.1 U	0.15 U	0.14 U	0.13 U	0.15 U	0.15 U	0.14 U	0.11 U	0.14 U
Aniline	62-53-3	mg/kg				0.13 U	0.18 U	0.17 U	0.16 U	0.18 U	0.18 U	0.17 U	0.13 U	0.17 U
Anthracene	120-12-7	mg/kg	6.8	23000		0.055 U	0.079 U	0.073 U	0.068 U	0.08 U	0.079 U	0.074 U	0.059 U	0.075 U
Azobenzene	103-33-3	mg/kg		5.6		0.12 U	0.17 U	0.16 U	0.15 U	0.17 U	0.17 U	0.16 U	0.13 U	0.16 U
Benzidine	92-87-5	mg/kg				1.5 U	2.2 U	2.1 U	1.9 UJ	2.2 U	2.2 U	2.1 U	1.7 U	2.1 U
Benzo(a)anthracene	56-55-3	mg/kg	0.73	1.1	1.6	0.049 U	0.071 U	0.066 U	0.061 U	0.072 U	0.071 U	0.067 U	0.053 U	0.068 U
Benzo(a)pyrene	50-32-8	mg/kg	62	0.11	4.4	0.083 U	0.12 U	0.11 U	0.1 U	0.12 U	0.12 U	0.11 U	0.089 U	0.11 U
Benzo(b)fluoranthene	205-99-2	mg/kg	18	1.1		0.086 U	0.12 U	0.11 U	0.11 U	0.13 U	0.12 U	0.12 U	0.092 U	0.12 U
Benzo(g,h,i)perylene	191-24-2	mg/kg	25			0.09 U	0.13 U	0.12 U	0.11 U	0.13 U	0.13 U	0.12 U	0.097 U	0.12 U

Table C-1. J. C. Boyle Fire Ring Analytical Results

					Location	**JBRA-01**			**JBRA-02**				**JBRA-03**	
					Sample Date	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023
					Depth Interval	0 - 0.5	1.5 - 2	3 - 3.5	0 - 0.5	1.5 - 2	3.5 - 4	5.5 - 6	0 - 0.5	1.5 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Ecological Receptors**	**Human Health**	**Leaching to Groundwater**									
Benzo(k)fluoranthene	207-08-9	mg/kg	71	11		0.1 U	0.15 U	0.14 U	0.13 U	0.15 U	0.15 U	0.14 U	0.11 U	0.14 U
Benzoic Acid	65-85-0	mg/kg	1	250000		1.7 U	2.5 U	2.3 U	2.1 UJ	2.5 U	2.5 U	2.3 U	1.8 U	2.3 U
Benzyl Alcohol	100-51-6	mg/kg	0.002	6300		0.092 U	0.13 U	0.12 U	0.11 U	0.13 U	0.13 U	0.12 U	0.099 U	0.13 U
Bis (2-chloroethoxy) methane	111-91-1	mg/kg		190		0.067 U	0.096 U	0.089 U	0.083 U	0.098 U	0.097 U	0.09 U	0.072 U	0.092 U
Bis (2-chloroethyl) ether	111-44-4	mg/kg		0.29	0.00019	0.11 U	0.16 U	0.15 U	0.14 U	0.16 U	0.16 U	0.15 U	0.12 U	0.15 U
bis (2-Chloroisopropyl) ether	39638-32-9	mg/kg		3100		0.065 U	0.093 U	0.086 U	0.08 U	0.094 U	0.093 U	0.087 U	0.069 U	0.088 U
Bis (2-ethylhexyl) phthalate	117-81-7	mg/kg	0.02	39		0.27 U	0.39 U	0.36 U	0.34 U	0.39 U	0.39 U	0.37 U	0.29 U	0.37 U
Butyl benzyl phthalate	85-68-7	mg/kg	90	290		0.24 U	0.34 U	0.32 U	0.3 U	0.35 U	0.35 U	0.32 U	0.26 U	0.33 U
Chrysene	218-01-9	mg/kg	3.1	110		0.073 U	0.11 U	0.097 U	0.091 U	0.11 U	0.11 U	0.099 U	0.078 U	0.1 U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	14	0.11		0.11 U	0.16 U	0.15 U	0.14 U	0.16 U	0.16 U	0.15 U	0.12 U	0.15 U
Dibenzofuran	132-64-9	mg/kg	6.1	78		0.1 U	0.15 U	0.14 U	0.13 U	0.15 U	0.15 U	0.14 U	0.11 U	0.14 U
Diethylphthalate	84-66-2	mg/kg	100	51000		0.066 U	0.095 U	0.088 U	0.082 U	0.096 U	0.095 U	0.089 U	0.071 U	0.09 U
Dimethylphthalate	131-11-3	mg/kg	10			0.068 U	0.098 U	0.091 U	0.085 U	0.099 U	0.098 U	0.092 U	0.073 U	0.093 U
Di-N-Butylphthalate	84-74-2	mg/kg	0.011	6300		0.079 U	0.11 U	0.11 U	0.098 U	0.11 U	0.11 U	0.11 U	0.085 U	0.11 U
Di-n-octyl phthalate	117-84-0	mg/kg	0.91	630		0.39 U	0.56 U	0.52 U	0.48 U	0.57 U	0.56 U	0.52 U	0.42 U	0.53 U
Fluoranthene	206-44-0	mg/kg	10	2400		0.063 U	0.091 U	0.084 U	0.079 U	0.092 U	0.091 U	0.085 U	0.068 U	0.086 U
Fluorene	86-73-7	mg/kg	3.7	3100		0.072 U	0.1 U	0.096 U	0.09 U	0.1 U	0.1 U	0.097 U	0.077 U	0.098 U
Hexachlorobenzene	118-74-1	mg/kg	0.079	0.21	0.018	0.099 U	0.14 U	0.13 U	0.12 U	0.14 U	0.14 U	0.13 U	0.11 U	0.14 U
Hexachlorobutadiene	87-68-3	mg/kg	0.009	1.2		0.054 U	0.078 U	0.072 U	0.067 U	0.079 U	0.078 U	0.073 U	0.058 U	0.074 U
Hexachlorocyclopentadiene	77-47-4	mg/kg	0.001	1.8		0.41 U	0.58 U	0.54 U	0.51 U	0.59 U	0.59 U	0.55 U	0.44 U	0.56 U
Hexachloroethane	67-72-1	mg/kg	0.024	7.4	0.022	0.12 U	0.17 U	0.16 U	0.15 U	0.17 U	0.17 U	0.16 U	0.13 U	0.16 U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	71	1.1		0.098 U	0.14 U	0.13 U	0.12 U	0.14 U	0.14 U	0.13 U	0.1 U	0.13 U
Isophorone	78-59-1	mg/kg		570		0.074 U	0.11 U	0.099 U	0.092 U	0.11 U	0.11 U	0.1 U	0.079 U	0.1 U
Naphthalene	91-20-3	mg/kg	1	5.3	0.077	**0.17 J**	0.089 U	0.083 U	0.077 U	0.091 U	0.09 U	0.084 U	0.067 U	0.085 U
Nitrobenzene	98-95-3	mg/kg	2.2	5.1		0.099 U	0.14 U	0.13 U	0.12 U	0.14 U	0.14 U	0.13 U	0.11 U	0.14 U
N-Nitrosodimethylamine	62-75-9	mg/kg				0.083 U	0.12 U	0.11 U	0.1 U	0.12 U	0.12 U	0.11 U	0.089 U	0.11 U
N-Nitrosodi-N-propylamine	621-64-7	mg/kg		0.078	0.00094	0.072 U	0.1 U	0.096 U	0.09 U	0.1 U	0.1 U	0.097 U	0.077 U	0.099 U
N-Nitrosodiphenylamine	86-30-6	mg/kg	0.545	110	10	0.1 U	0.15 U	0.14 U	0.13 U	0.15 U	0.15 U	0.14 U	0.11 U	0.14 U
Pentachlorophenol	87-86-5	mg/kg	0.36	1	0.066	1.1 U	1.6 U	1.4 U	1.4 U	1.6 U	1.6 U	1.5 U	1.2 U	1.5 U
Phenanthrene	85-01-8	mg/kg	5.5			0.066 U	0.095 U	0.088 U	0.082 U	0.096 U	0.095 U	0.089 U	0.071 U	0.09 U
Phenol	108-95-2	mg/kg	0.79	19000		0.1 U	0.15 U	0.14 U	0.13 U	0.15 U	0.15 U	0.14 U	0.11 U	0.14 U
Pyrene	129-00-0	mg/kg	10	1800		0.081 U	0.12 U	0.11 U	0.1 U	0.12 U	0.12 U	0.11 U	0.087 U	0.11 U
Pyridine	110-86-1	mg/kg		78		0.089 U	0.13 U	0.12 U	0.11 U	0.13 U	0.13 U	0.12 U	0.095 U	0.12 U
SW8290														
1,2,3,4,6,7,8-HpCDD	35822-46-9	mg/kg	1E-06			**5.7E-06**	1.9E-07 U	2.9E-07 UJ	**2E-06 J**	1.1E-07 U	3.1E-07 U	5E-07 U	**7.2E-06 J**	2.8E-07 U
1,2,3,4,6,7,8-HpCDF	67562-39-4	mg/kg	1.6E-06			**7.3E-06**	1.4E-07 U	**3.6E-07 J**	1.2E-07 U	1.5E-07 U	**2E-07 J**	3.2E-07 UJ	7.1E-07 UJ	1.6E-07 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	mg/kg	1.6E-06			**6.1E-07 J**	1.4E-07 U	1E-07 U	1.3E-07 U	1.4E-07 U	1.2E-07 U	3E-07 U	1.8E-07 U	1.7E-07 U
1,2,3,4,7,8-HxCDD	39227-28-6	mg/kg	1.8E-07			**1E-06 J**	1.4E-07 U	3.5E-07 UJ	**3.7E-07 J**	1.8E-07 U	1.6E-07 U	3.2E-07 UJ	1.9E-07 UJ	2E-07 U
1,2,3,4,7,8-HxCDF	70648-26-9	mg/kg	1.6E-07			**5.5E-06**	1.3E-07 U	6.5E-08 U	1.1E-07 U	1.1E-07 U	**1.2E-07 J**	2.1E-07 UJ	1.5E-07 U	1E-07 U
1,2,3,6,7,8-HxCDD	57653-85-7	mg/kg	1.3E-07			**1.2E-06 J**	1.4E-07 U	8.4E-08 U	1.5E-07 U	1.7E-07 U	1.7E-07 U	3.1E-07 UJ	1.9E-07 UJ	1.9E-07 U
1,2,3,6,7,8-HxCDF	57117-44-9	mg/kg	1.6E-07			**3.7E-06 J**	1.2E-07 U	6.6E-08 U	1.1E-07 U	9.8E-08 U	1.1E-07 U	1.9E-07 UJ	1.4E-07 U	9.8E-08 U
1,2,3,7,8,9-HxCDD	19408-74-3	mg/kg	1.3E-07			**1.7E-06 J**	1.4E-07 U	8E-08 U	1.4E-07 U	1.6E-07 U	1.5E-07 U	3E-07 U	1.8E-07 U	1.8E-07 U

Table C-1. J. C. Boyle Fire Ring Analytical Results

					Location	**JBRA-01**			**JBRA-02**				**JBRA-03**	
					Sample Date	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023	6/22/2023
					Depth Interval	0 - 0.5	1.5 - 2	3 - 3.5	0 - 0.5	1.5 - 2	3.5 - 4	5.5 - 6	0 - 0.5	1.5 - 2
					Sample Type	N	N	N	N	N	N	N	N	N
Analyte	**CAS**	**Unit**	**Ecological Receptors**	**Human Health**	**Leaching to Groundwater**									
1,2,3,7,8,9-HxCDF	72918-21-9	mg/kg	2.1E-07			3.1E-07 U	1.5E-07 U	7.8E-08 U	1.3E-07 U	1.1E-07 U	1.3E-07 U	2.1E-07 U	1.2E-07 U	1.3E-07 U
1,2,3,7,8-PeCDD	40321-76-4	mg/kg	4.2E-08			**1.6E-06 J**	2.1E-07 U	1.2E-07 U	1.5E-07 U	1.6E-07 U	1.6E-07 U	2.5E-07 UJ	1.5E-07 U	2E-07 U
1,2,3,7,8-PeCDF	57117-41-6	mg/kg	9.7E-07			**8.4E-06**	**4.2E-07 J**	9.7E-08 U	9.9E-08 U	9.4E-08 U	1.1E-07 U	1.5E-07 UJ	8.6E-08 U	1.1E-07 U
2,3,4,6,7,8-HxCDF	60851-34-5	mg/kg	1.6E-07			**3.4E-06 J**	1.3E-07 U	6.2E-08 U	9.7E-08 U	9E-08 U	1E-07 U	1.6E-07 U	1.1E-07 U	9.4E-08 U
2,3,4,7,8-PeCDF	57117-31-4	mg/kg	9.7E-08			**9.3E-06**	**3.4E-07 J**	1.1E-07 U	1.1E-07 U	1.1E-07 U	1.2E-07 U	2E-07 UJ	1.1E-07 U	1.4E-07 U
2,3,7,8-TCDD	1746-01-6	mg/kg	3.7E-08	4.74411E-06	6.81479E-06	1.9E-06 UJ	2.2E-07 U	1.5E-07 U	2E-07 U	1.9E-07 U	2E-07 U	4.3E-07 UJ	2.3E-07 U	2.9E-07 U
2,3,7,8-TCDF	51207-31-9	mg/kg	4.5E-07			**3.6E-05**	**1E-06 J**	**9.2E-07 J**	**5.2E-07 J**	8.5E-08 U	9.4E-08 U	1.6E-07 U	7.2E-07 UJ	1.1E-07 U
OCDD	3268-87-9	mg/kg	4.5E-05			**1.6E-05**	3.3E-06 U	2.6E-06 UJ	**1.1E-05 J**	1.2E-06 UJ	1.1E-06 UJ	3E-06 UJ	**4E-05 J**	1.3E-06 UJ
OCDF	39001-02-0	mg/kg	3.3E-05			**2.5E-06 J**	2E-07 U	5E-07 U	5.7E-07 UJ	2.4E-07 U	1.7E-07 U	3.9E-07 UJ	**1.7E-06 J**	1.7E-07 U
Total HpCDD	37871-00-4	mg/kg				**1E-05**	**4.1E-07 J**	**6.6E-07 J**	**3.8E-06 J**	**2.5E-07 J**	**3.1E-07 J**	**9.4E-07 J**	**1.1E-05**	**6.5E-07 J**
Total HpCDF	38998-75-3	mg/kg				**1.1E-05**	1.4E-07 U	**4.7E-07 J**	1.3E-07 U	1.5E-07 U	**2E-07 J**	3.2E-07 U	**2.1E-06 J**	1.7E-07 U
Total HxCDD	34465-46-8	mg/kg				**1.6E-05**	1.4E-07 U	**3.5E-07 J**	**3.7E-07 J**	1.8E-07 U	1.7E-07 U	3.2E-07 U	**8.7E-07 J**	2E-07 U
Total HxCDF	55684-94-1	mg/kg				**2.2E-05**	**3.3E-07 J**	1E-07 U	1.3E-07 U	1.1E-07 U	**2.2E-07 J**	2.1E-07 U	1.5E-07 U	1.3E-07 U
Total PeCDD	36088-22-9	mg/kg				**1.3E-05**	2.1E-07 U	1.2E-07 U	1.5E-07 U	**2.2E-07 J**	1.6E-07 U	2.5E-07 U	1.5E-07 U	2E-07 U
Total PeCDF	30402-15-4	mg/kg				**6.1E-05**	**7.7E-07 J**	**1.4E-07 J**	**3.8E-07 J**	1.1E-07 U	1.2E-07 U	2E-07 U	1.1E-07 U	1.4E-07 U
Total TCDD	41903-57-5	mg/kg				**1.8E-05**	2.2E-07 U	1.5E-07 U	2E-07 U	1.9E-07 U	2E-07 U	4.3E-07 U	2.3E-07 U	2.9E-07 U
Total TCDF	55722-27-5	mg/kg				**0.00024**	**5.8E-06**	**3.2E-06**	**1.3E-06**	8.5E-08 U	9.4E-08 U	1.6E-07 U	**2.9E-06**	1.1E-07 U

Notes:
CAS = Chemical Abstracts Service
FD = field duplicate sample
J = Estimated value less than reporting limit but greater than method detection limit or value is estimated due to a sampling or laboratory quality control issue
mg/kg = milligram(s) per kilogram
N = normal sample
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit
UJ = The analyte was below the reported sample quantitation limit; however, the reported value is approximate

Bold indicates the analyte was detected
Shading indicates the result exceeded screening criteria

Appendix C2
Laboratory Report

Available upon request.

Appendix D
Data Quality Evaluation Report

Jacobs

Lower Klamath Project (FERC No. P-14803)

Data Quality Evaluation Report for Oregon

Final

December 2023

PacifiCorp

PACIFICORP

Contents

Acronyms and Abbreviations

CVAA	Cold Vapor Atomic Absorption
DQE	data quality evaluation
EMPC	estimated maximum potential concentration
EPA	U.S. Environmental Protection Agency
EUCG	Eurofins Calscience Laboratory
ICP	Inductively Coupled Plasma
Jacobs	Jacobs Engineering Group Inc.
LB	lab blank
LCL	lower control limit
LCS	laboratory control sample
mg/kg	milligram(s) per kilogram
MS/MSD	matrix spike/matrix spike duplicate(s)
PARCC	precision, accuracy, representativeness, completeness, and comparability
pg/g	picogram(s) per gram
Project	Lower Klamath Project
QC	quality control
RL	reporting limit
SD	spike duplicate
SIWP	site investigation work plan
Sur	surrogate
SVOC	semivolatile organic compound
TAMC	Eurofins TestAmerica West Sacramento
VOC	volatile organic compound

1. Introduction

The objective of this data quality evaluation (DQE) report is to assess the data quality of analytical results for soil samples collected by Jacobs Engineering Group Inc. (Jacobs) on behalf of PacifiCorp during investigation of pre-existing environmental conditions on the Lower Klamath Project (Project) associated with the J.C. Boyle fire ring in Oregon.

The Project is divided between sites in California and Oregon. Jacobs and PacifiCorp have prepared separate Site Investigation Work Plans (SIWPs) for the sites in California and Oregon (Jacobs 2021a and 2021b), a sampling and analysis plan (Appendix A to the California and Oregon SIWPs), SIWP supplements for California and Oregon (Jacobs 2023a and 2023b), and Site Investigation Reports for California and Oregon (Jacobs 2023c and 2023d).

The individual method requirements and guidelines from the U.S. Environmental Protection Agency (EPA) *National Functional Guidelines for Organic Superfund Methods Data Review* (EPA 2020a) and the EPA *National Functional Guidelines for Inorganic Superfund Methods Data Review* (EPA 2020b) were consulted for this evaluation. This DQE report provides a general data quality assessment and a summary of data issues.

2. Analytical Data

This DQE report covers 9 normal soil samples for a total of 1,618 individual sample results. Samples were collected on June 22, 2023. A list of samples and collection dates is attached to this report (Attachment 1). These sample results were reported under one sample delivery group (570-142883-1). The analyses were performed by Eurofins Calscience Laboratory (EUCG) in Tustin, California, and Eurofins TestAmerica West Sacramento (TAMC) in West Sacramento, California.

Samples were collected and delivered by commercial courier to the laboratories for analysis. Samples were analyzed by the laboratories listed above for metals, mercury, volatile organic compounds, semivolatile organic compounds, and dioxins/furans (Table 1).

Table 1. Analytical Parameters

Parameter	Method	Laboratory
Metals (ICP)	SW6010	EUCG
Mercury (CVAA)	SW7471	EUCG
Volatile Organic Compounds	SW8260	EUCG
Semivolatile Organic Compounds	SW8270	EUCG
Dioxins/Furans	SW8290	TAMC

Notes:

Parameters

CVAA = Cold Vapor Atomic Absorption

ICP = Inductively Coupled Plasma

Laboratory

EUCG = Eurofins Calscience Laboratory

TAMC = Eurofins TestAmerica West Sacramento

The assessment of data includes a review of: (1) the chain-of-custody documentation; (2) holding-time compliance; (3) the required field and laboratory quality control (QC) samples; (4) method blanks; (5) laboratory control samples (LCS); (6) surrogate spike recoveries; (7) matrix spike/matrix spike duplicate

(MS/MSD) samples; (8) analytical spike data (for example, post-digestion spikes for metals analyses); (9) initial and continuing calibration information; and (10) other method-specific criteria.

Data flags were assigned according to QC acceptance limits. These flags, as well as the reason for each flag, are entered into the electronic database. Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will be only one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes blank sample impacts.

The data flags are defined from most conservative to least as follows:

- R = The result was unusable because of deficiencies in the ability to analyze the sample and meet QC criteria.
- J = Analyte was present but the reported value may not be accurate or precise (estimated). The result was estimated because of either being less than the referenced reporting limit but greater than the method detection limit or because of a QC exceedance.
- UJ = Analyte was not detected and the specified detection limit may not be accurate or precise (estimated).
- U = Analyte was not detected at the specified detection limit.

3. Findings

The overall summaries of the data validation findings are contained in the following sections. Qualified data are presented in Table 2.

3.1 Holding Times

All holding-time criteria were met.

3.2 Calibration

Initial and continuing calibration criteria were met.

3.3 Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination that would affect the sample results, with the following exception:

- Several compounds in six native samples were detected at a concentration less than 5 times the blank concentration. A total of 12 associated detects in the native samples were qualified as nondetects and flagged “U.”

3.4 Surrogates

Surrogate spikes were analyzed in each sample for all required methods. All acceptance criteria were met, with the following exception:

- The recovery of several deuterated congeners in two native samples was less than the lower control limit (LCL) for method SW8290. A total of 18 associated detects and nondetects in the native sample were qualified as estimated and flagged “J” and “UJ,” respectively.

3.5 Laboratory Control Samples

LCS and LCS duplicates were analyzed as required. Accuracy and precision criteria were met.

3.6 Matrix Spike/Matrix Spike Duplicate

The results of MS/MSD analyses provide information about the possible influence of the matrix on either accuracy or precision of the measurements. A MS/MSD set was submitted by the field team. All acceptance criteria were met, with the following exceptions:

- The recovery for benzidine and benzoic acid in the MS/MSD set was less than the LCL for method SW8270. Two nondetected native sample results were qualified as estimated and flagged "UJ."
- Estimated maximum potential concentrations (EMPCs) were reported on 10 compounds for method SW8290. These compounds were qualified as estimated nondetects and flagged "UJ."

3.7 Chain of Custody

Each sample was documented in a completed chain-of-custody form and received at the laboratory within temperature criteria and in good condition.

3.8 Overall Assessment

The final activity in the DQE is an assessment of whether the data meet the required precision, accuracy, representativeness, completeness, and comparability (PARCC). The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected, and the resulting analytical data can be used to support the decision making process. The following summary highlights the data evaluation findings for the above-defined events:

1) The completeness goal of 90 percent for soil samples was met for all method and analyte combinations.
2) Approximately 1.9 percent of the data were qualified as estimated because of QC exceedances that included surrogate exceedances or MS/MSD recovery exceedances.
3) Approximately 1.1 percent of the data were qualified as nondetect because of blank contamination.
4) Overall, the precision and accuracy of the data, as measured by laboratory and field QC indicators, indicates that the PARCC were met. Data are usable for decision-making, considering the biases outlined in this data quality evaluation.
5) Representativeness and comparability of the data was achieved through adherence to the sampling plan. Consistent sample collection procedures, laboratories, and analytical methodologies were used throughout the sampling event. Data were reported in consistent methods and units for the sampling events.
6) Sensitivity is a measurement based on the analytical instrument method reporting limits determined by each laboratory and is ensured through compliance with reporting limits being equivalent to, or less than screening levels. Any nondetect results that were reported by the laboratory, or were flagged nondetect because of blank contamination, have been evaluated against screening levels as discussed in the Oregon SIR1.

Table 2. Data Qualification Summary

NativeID	Method	Analyte	Final Result	Units	Validation Flag	Validation Reason
JBRA-01-0.0-0.5	SW8290	2,3,7,8-TCDD	1.9	pg/g	UJ	EMPC
JBRA-01-3.0-3.5	SW8290	OCDD	2.6	pg/g	UJ	EMPC
JBRA-01-3.0-3.5	SW8290	OCDD	2.6	pg/g	U	LB<RL
JBRA-01-3.0-3.5	SW8290	1,2,3,4,7,8-HxCDD	0.35	pg/g	UJ	EMPC
JBRA-01-3.0-3.5	SW8290	1,2,3,4,6,7,8-HpCDD	0.29	pg/g	UJ	EMPC
JBRA-01-3.0-3.5	SW8290	1,2,3,4,6,7,8-HpCDD	0.29	pg/g	U	LB<RL
JBRA-01-3.0-3.5	SW8290	OCDF	0.5	pg/g	U	LB<RL
JBRA-02-3.5-4.0	SW8290	OCDD	1.1	pg/g	UJ	EMPC
JBRA-02-3.5-4.0	SW8290	OCDD	1.1	pg/g	U	LB<RL
JBRA-02-3.5-4.0	SW8290	1,2,3,4,6,7,8-HpCDD	0.31	pg/g	U	LB<RL
JBRA-01-1.5-2.0	SW8290	OCDD	3.3	pg/g	U	LB<RL
JBRA-03-1.5-2.0	SW8290	OCDD	1.3	pg/g	UJ	EMPC
JBRA-03-1.5-2.0	SW8290	OCDD	1.3	pg/g	U	LB<RL
JBRA-03-1.5-2.0	SW8290	1,2,3,4,6,7,8-HpCDD	0.28	pg/g	U	LB<RL
JBRA-03-0.0-0.5	SW8290	OCDD	40	pg/g	J	Sur<LCL
JBRA-03-0.0-0.5	SW8290	1,2,3,4,6,7,8-HpCDD	7.2	pg/g	J	Sur<LCL
JBRA-03-0.0-0.5	SW8290	OCDF	1.7	pg/g	J	Sur<LCL
JBRA-03-0.0-0.5	SW8290	2,3,7,8-TCDF	0.72	pg/g	UJ	EMPC
JBRA-03-0.0-0.5	SW8290	1,2,3,4,7,8-HxCDD	0.19	pg/g	UJ	Sur<LCL
JBRA-03-0.0-0.5	SW8290	1,2,3,6,7,8-HxCDD	0.19	pg/g	UJ	Sur<LCL
JBRA-03-0.0-0.5	SW8290	1,2,3,4,6,7,8-HpCDF	0.71	pg/g	J	Sur<LCL
JBRA-03-0.0-0.5	SW8290	1,2,3,4,6,7,8-HpCDF	0.71	pg/g	UJ	EMPC
JBRA-02-0.0-0.5	SW8270C	Benzidine	1.9	mg/kg	UJ	MS<LCL
JBRA-02-0.0-0.5	SW8270C	Benzidine	1.9	mg/kg	UJ	SD<LCL
JBRA-02-0.0-0.5	SW8270C	Benzoic acid	2.1	mg/kg	UJ	MS<LCL
JBRA-02-0.0-0.5	SW8270C	Benzoic acid	2.1	mg/kg	UJ	SD<LCL
JBRA-02-1.5-2.0	SW8290	OCDD	1.2	pg/g	UJ	EMPC
JBRA-02-1.5-2.0	SW8290	OCDD	1.2	pg/g	U	LB<RL
JBRA-02-0.0-0.5	SW8290	OCDF	0.57	pg/g	UJ	EMPC
JBRA-02-0.0-0.5	SW8290	OCDF	0.57	pg/g	U	LB<RL

Table 2. Data Qualification Summary

NativeID	Method	Analyte	Final Result	Units	Validation Flag	Validation Reason
JBRA-02-5.5-6.0	SW8290	OCDD	3	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	OCDD	3	pg/g	U	LB<RL
JBRA-02-5.5-6.0	SW8290	2,3,7,8-TCDD	0.43	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,7,8-PeCDD	0.25	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,7,8-PeCDF	0.15	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	2,3,4,7,8-PeCDF	0.2	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,4,7,8-HxCDD	0.32	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,6,7,8-HxCDD	0.31	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,4,7,8-HxCDF	0.21	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,6,7,8-HxCDF	0.19	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,4,6,7,8-HpCDD	0.5	pg/g	J	Sur<LCL
JBRA-02-5.5-6.0	SW8290	1,2,3,4,6,7,8-HpCDD	0.5	pg/g	U	LB<RL
JBRA-02-5.5-6.0	SW8290	1,2,3,4,6,7,8-HpCDF	0.32	pg/g	UJ	Sur<LCL
JBRA-02-5.5-6.0	SW8290	OCDF	0.39	pg/g	UJ	Sur<LCL

Notes:

EMPC = estimated maximum potential concentration

LB = lab blank

LCL = lower control limit

mg/kg = milligram(s) per kilogram

pg/g = picogram(s) per gram

RL = reporting limit

SD = spike duplicate

Sur = surrogate

4. References

Jacobs Engineering Group Inc. (Jacobs). 2021a. *California Site Investigation Work Plan.* Prepared for PacifiCorp. November.

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U.S. Environmental Protection Agency (EPA). 2020a. *National Functional Guidelines for Organic Superfund Methods Data Review*. November.

U.S. Environmental Protection Agency (EPA). 2020b. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. November.

Attachment 1
Samples Associated with Data Quality Evaluation Report

Samples Associated with Data Quality Evaluation Report

Sample ID	Sample Date	Sample Type	Matrix
JBRA-01-0.0-0.5	6/22/2023	Regular	Soil
JBRA-01-1.5-2.0	6/22/2023	Regular	Soil
JBRA-01-3.0-3.5	6/22/2023	Regular	Soil
JBRA-02-0.0-0.5	6/22/2023	Regular	Soil
JBRA-02-1.5-2.0	6/22/2023	Regular	Soil
JBRA-02-3.5-4.0	6/22/2023	Regular	Soil
JBRA-02-5.5-6.0	6/22/2023	Regular	Soil
JBRA-03-0.0-0.5	6/22/2023	Regular	Soil
JBRA-03-1.5-2.0	6/22/2023	Regular	Soil

Appendix E
Human Health and Leaching to Groundwater Risk Evaluation Tables

Table E-1
J.C. Boyle Retained Easement Fire Ring Evaluation of COPCs for Human Health and Leaching to Groundwater

Table E-1. J.C. Boyle Retainment Easement Fire Ring Evaluation of COPCs for Human Health and Leaching to Groundwater.

ANALYTIC METHOD	CHEMICAL NAME	CAS	Maximum Detected Concentration in Soil (mg/kg)	OR Human Health SL[a] (mg/kg)	Exceeds OR Human Health SL?	Background Value[b] (mg/kg)	Human Health COPC[c]?	OR Leaching to Groundwater SL[a] (mg/kg)	Exceeds OR Leach to Groundwater SL (COPC)?	Surrogate Chemicals for Human Health
CALC	2,3,7,8-TCDD Toxic Equivalent (TEQ) Mammal, (ND=0)	TEQ-M0	1.0E-05	4.7E-06	Yes	NA	Yes	6.81E-06	Yes	2,3,7,8-TCDD
SW6010B	Arsenic	7440-38-2	5.3E+00	1.9E+01	No	19	No	NA	NA	
SW6010B	Barium	7440-39-3	4.0E+02	1.5E+04	No	630	No	NA	NA	
SW6010B	Beryllium	7440-41-7	1.6E+00	1.6E+02	No	2.1	No	NA	NA	
SW6010B	Chromium	7440-47-3	6.2E+01	1.2E+05	No	200	No	NA	NA	Chromium III
SW6010B	Cobalt	7440-48-4	5.2E+01	2.3E+01	Yes	--	Yes	NA	NA	
SW6010B	Copper	7440-50-8	1.2E+02	3.1E+03	No	73	No	NA	NA	
SW6010B	Lead	7439-92-1	8.7E+00	4.0E+02	No	34	No	3.4E+01	No	
SW6010B	Molybdenum	7439-98-7	7.7E-01	3.9E+02	No	NA	No	NA	NA	
SW6010B	Nickel	7440-02-0	8.2E+01	1.5E+03	No	110	No	NA	NA	
SW6010B	Selenium	7782-49-2	2.2E+00	3.9E+02	No	0.52	No	NA	NA	
SW6010B	Vanadium	7440-62-2	2.2E+02	3.9E+02	No	280	No	NA	NA	
SW6010B	Zinc	7440-66-6	4.9E+02	2.3E+04	No	170	No	NA	NA	
SW8270C	1-Methylnaphthalene	90-12-0	7.3E-02	1.8E+01	No	NA	No	NA	NA	
SW8270C	2-Methylnaphthalene	91-57-6	1.3E-01	2.4E+02	No	NA	No	NA	NA	
SW8270C	Naphthalene	91-20-3	1.7E-01	5.3E+00	No	NA	No	7.7E-02	Yes	
SW8260B	Toluene	108-88-3	5.6E-01	5.8E+06	No	NA	No	83000	No	
SW8290	1,2,3,4,6,7,8-HpCDD	35822-46-9	7.2E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,4,6,7,8-HpCDF	67562-39-4	7.3E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,4,7,8,9-HpCDF	55673-89-7	6.1E-01	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,4,7,8-HxCDD	39227-28-6	1.0E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,4,7,8-HxCDF	70648-26-9	5.5E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,6,7,8-HxCDD	57653-85-7	1.2E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,6,7,8-HxCDF	57117-44-9	3.7E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,7,8,9-HxCDD	19408-74-3	1.7E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,7,8-PeCDD	40321-76-4	1.6E+00	NA[d]	No	NA	No	NA	NA	
SW8290	1,2,3,7,8-PeCDF	57117-41-6	8.4E+00	NA[d]	No	NA	No	NA	NA	
SW8290	2,3,4,6,7,8-HxCDF	60851-34-5	3.4E+00	NA[d]	No	NA	No	NA	NA	
SW8290	2,3,4,7,8-PeCDF	57117-31-4	9.3E+00	NA[d]	No	NA	No	NA	NA	
SW8290	2,3,7,8-TCDF	51207-31-9	3.6E+01	NA[d]	No	NA	No	NA	NA	
SW8290	OCDD	3268-87-9	4.0E+01	NA[d]	No	NA	No	NA	NA	
SW8290	OCDF	39001-02-0	2.5E+00	NA[d]	No	NA	No	NA	NA	
SW8290	Total HpCDD	37871-00-4	1.1E+01	NA[d]	No	NA	No	NA	NA	
SW8290	Total HpCDF	38998-75-3	1.1E+01	NA[d]	No	NA	No	NA	NA	
SW8290	Total HxCDD	34465-46-8	1.6E+01	NA[d]	No	NA	No	NA	NA	
SW8290	Total HxCDF	55684-94-1	2.2E+01	NA[d]	No	NA	No	NA	NA	
SW8290	Total PeCDD	36088-22-9	1.3E+01	NA[d]	No	NA	No	NA	NA	
SW8290	Total PeCDF	30402-15-4	6.1E+01	NA[d]	No	NA	No	NA	NA	
SW8290	Total TCDD	41903-57-5	1.8E+01	NA[d]	No	NA	No	NA	NA	
SW8290	Total TCDF	55722-27-5	2.4E+02	NA[d]	No	NA	No	NA	NA	

Notes:

[a] The screening levels used for human health are the the minimum ODEQ (2018) RBCs for residential soil for direct contact and outdoor inhalation pathways. If no RBCs are available, the EPA (2023) Residential Soil RSL was used. Background values are used if available and if higher. The screening levels used for leaching to groundwater are the ODEQ (2018) RBCs for residential leaching to groundwater.

[b] Background concentrations for metals in soil in Cascade Range (ODEQ 2013)

[c] Human health COPCs are analytes that exceed the human health SL and the background value, if available.

[d] Evaluated using Total 2,3,7,8-TCDD, calculated using toxicity equivalent values.

CAS = Chemical Abstracts Service
COPC = chemical of potential concern
mg/kg = milligrams per kiligram
NA = not available or not applicable
SL = screening level

Table E-2
J.C. Boyle Retained Easement Fire Ring ProUCL Input

The Excel table file is available upon request.

Cobalt	d_Cobalt	2378-TCDD-eq	d_2378-TCDD-eq	Naphthalene	d_Naphthalene	LOC_NAME	START_DEPTH	END_DEPTH	
15.6	1	1E-05	1	0.17	1	JBRA-01	0	0.5	
47.6	1	2.15E-07	1	0.089	0	JBRA-01	1.5	2	
24.9	1	1.12E-07	1	0.077	0	JBRA-02	0	0.5	
52.3	1	1.90E-07	0	0.091	0	JBRA-02	1.5	2	MDL
23	1	8.45E-08	1	0.067	0	JBRA-03	0	0.5	
48.6	1	2.90E-07	0	0.085	0	JBRA-03	1.5	2	

Table E-3
J.C. Boyle Retained Easement Fire Ring ProUCL Output for Surface Soils

The Excel table file is available upon request.

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/9/2023 12:56:44 PM
From File	JCBoyle_ProUCL_Input.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Cobalt

General Statistics

Total Number of Observations	6	Number of Distinct Observations	6
		Number of Missing Observations	0
Minimum	15.6	Mean	35.33
Maximum	52.3	Median	36.25
SD	15.9	Std. Error of Mean	6.493
Coefficient of Variation	0.45	Skewness	-0.122

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test

Shapiro Wilk Test Statistic	0.849	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.713	Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.28	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.373	Data appear Normal at 1% Significance Level

Data appear Normal at 1% Significance Level
Note GOF tests may be unreliable for small sample sizes

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	48.42	95% Adjusted-CLT UCL (Chen-1995)	45.67
		95% Modified-t UCL (Johnson-1978)	48.36

Gamma GOF Test

A-D Test Statistic	0.535	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.698	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.306	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.333	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level
Note GOF tests may be unreliable for small sample sizes

Gamma Statistics

k hat (MLE)	5.264	k star (bias corrected MLE)	2.743
Theta hat (MLE)	6.712	Theta star (bias corrected MLE)	12.88
nu hat (MLE)	63.17	nu star (bias corrected)	32.92
MLE Mean (bias corrected)	35.33	MLE Sd (bias corrected)	21.33
		Approximate Chi Square Value (0.05)	20.8
Adjusted Level of Significance	0.0122	Adjusted Chi Square Value	17.41

Assuming Gamma Distribution

95% Approximate Gamma UCL	55.91	95% Adjusted Gamma UCL	66.8

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.865	**Shapiro Wilk Lognormal GOF Test**
10% Shapiro Wilk Critical Value	0.826	Data appear Lognormal at 10% Significance Level
Lilliefors Test Statistic	0.285	**Lilliefors Lognormal GOF Test**
10% Lilliefors Critical Value	0.298	Data appear Lognormal at 10% Significance Level

Data appear Lognormal at 10% Significance Level

Note GOF tests may be unreliable for small sample sizes

Lognormal Statistics

Minimum of Logged Data	2.747	Mean of logged Data	3.467
Maximum of Logged Data	3.957	SD of logged Data	0.502

Assuming Lognormal Distribution

95% H-UCL	65.82	90% Chebyshev (MVUE) UCL	57.37
95% Chebyshev (MVUE) UCL	67.25	97.5% Chebyshev (MVUE) UCL	80.98
99% Chebyshev (MVUE) UCL	107.9		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution

Nonparametric Distribution Free UCLs

95% CLT UCL	46.01	95% BCA Bootstrap UCL	44.78
95% Standard Bootstrap UCL	45.06	95% Bootstrap-t UCL	48.23
95% Hall's Bootstrap UCL	41.81	95% Percentile Bootstrap UCL	44.95
90% Chebyshev(Mean, Sd) UCL	54.81	95% Chebyshev(Mean, Sd) UCL	63.64
97.5% Chebyshev(Mean, Sd) UCL	75.88	99% Chebyshev(Mean, Sd) UCL	99.94

Suggested UCL to Use

95% Student's-t UCL	48.42

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Note: For highly negatively-skewed data, confidence limits (e.g., Chen, Johnson, Lognormal, and Gamma) may not be reliable. Chen's and Johnson's methods provide adjustments for positvely skewed data sets.

2378-TCDD-eq

General Statistics

Total Number of Observations	6	Number of Distinct Observations	5
Number of Detects	4	Number of Non-Detects	2
Number of Distinct Detects	4	Number of Distinct Non-Detects	1
Minimum Detect	8.4510E-8	Minimum Non-Detect	0
Maximum Detect	1.0034E-5	Maximum Non-Detect	0
Variance Detects	2.449E-11	Percent Non-Detects	33.33%
Mean Detects	2.6113E-6	SD Detects	4.9486E-6
Median Detects	1.6345E-7	CV Detects	N/A
Skewness Detects	1.999	Kurtosis Detects	3.997

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach, refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance, but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7). The Chebyshev UCL often results in gross overestimates of the mean. Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.639	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.687	Detected Data Not Normal at 1% Significance Level
Lilliefors Test Statistic	0.436	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.413	Detected Data Not Normal at 1% Significance Level

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.7408E-6	KM Standard Error of Mean	1.7486E-6
90KM SD	3.7094E-6	95% KM (BCA) UCL	N/A
95% KM (t) UCL	5.2644E-6	95% KM (Percentile Bootstrap) UCL	N/A
95% KM (z) UCL	4.6171E-6	95% KM Bootstrap t UCL	N/A
90% KM Chebyshev UCL	6.9867E-6	95% KM Chebyshev UCL	9.3629E-6
97.5% KM Chebyshev UCL	1.2661E-5	99% KM Chebyshev UCL	1.9139E-5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.728	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.699	Detected Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.427	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.416	Detected Data Not Gamma Distributed at 5% Significance Level

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.348	k star (bias corrected MLE)	0.254
Theta hat (MLE)	7.4982E-6	Theta star (bias corrected MLE)	1.0292E-5
nu hat (MLE)	2.786	nu star (bias corrected)	2.03
Mean (detects)	2.6113E-6		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.7408E-6	SD (KM)	3.7094E-6
Variance (KM)	1.376E-11	SE of Mean (KM)	1.7486E-6
k hat (KM)	0.22	k star (KM)	0.221
nu hat (KM)	2.643	nu star (KM)	2.655
theta hat (KM)	7.9039E-6	theta star (KM)	7.8687E-6
80% gamma percentile (KM)	2.4084E-6	90% gamma percentile (KM)	5.2583E-6
95% gamma percentile (KM)	8.7290E-6	99% gamma percentile (KM)	1.8134E-5

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0122
Approximate Chi Square Value (2.65, α)	0.278	Adjusted Chi Square Value (2.65, β)	0.127
95% KM Approximate Gamma UCL	1.6627E-5	95% KM Adjusted Gamma UCL	3.6448E-5

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	N/A	KM Geo Mean	N/A
KM SD (logged)	N/A	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	N/A	95% H-UCL (KM -Log)	N/A
KM SD (logged)	N/A	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	N/A		

DL/2 Statistics

Mean in Original Scale	1.7408E-6	SD in Original Scale	4.0634E-6
95% t UCL (Assumes normality)	5.0836E-6		

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution

Suggested UCL to Use

Recommendation cannot be provided

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Naphthalene

General Statistics

Total Number of Observations	6	Number of Distinct Observations	6
Number of Detects	1	Number of Non-Detects	5
Number of Distinct Detects	1	Number of Distinct Non-Detects	5

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!
It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Naphthalene was not processed!

Table E-4
J.C. Boyle Retained Easement Fire Ring ProUCL Output for Mixed Zone Soils

The Excel table file is available upon request.

UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.2 8/9/2023 12:54:42 PM
From File	JCBoyle_ProUCL_Input_a.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Cobalt

General Statistics

Total Number of Observations	9	Number of Distinct Observations	9
		Number of Missing Observations	0
Minimum	15.6	Mean	33.5
Maximum	52.3	Median	25
SD	13.59	Std. Error of Mean	4.53
Coefficient of Variation	0.406	Skewness	0.276

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test

Shapiro Wilk Test Statistic	0.871	**Shapiro Wilk GOF Test**
1% Shapiro Wilk Critical Value	0.764	Data appear Normal at 1% Significance Level
Lilliefors Test Statistic	0.29	**Lilliefors GOF Test**
1% Lilliefors Critical Value	0.316	Data appear Normal at 1% Significance Level

Data appear Normal at 1% Significance Level

Note GOF tests may be unreliable for small sample sizes

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	41.92	95% Adjusted-CLT UCL (Chen-1995)	41.4
		95% Modified-t UCL (Johnson-1978)	41.99

Gamma GOF Test

A-D Test Statistic	0.596	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.722	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.277	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.28	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Note GOF tests may be unreliable for small sample sizes

Gamma Statistics

k hat (MLE)	6.639	k star (bias corrected MLE)	4.5
Theta hat (MLE)	5.046	Theta star (bias corrected MLE)	7.445
nu hat (MLE)	119.5	nu star (bias corrected)	81
MLE Mean (bias corrected)	33.5	MLE Sd (bias corrected)	15.79
		Approximate Chi Square Value (0.05)	61.26
Adjusted Level of Significance	0.0231	Adjusted Chi Square Value	57.65

Assuming Gamma Distribution

95% Approximate Gamma UCL	44.29	95% Adjusted Gamma UCL	47.07

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.892	**Shapiro Wilk Lognormal GOF Test**	
10% Shapiro Wilk Critical Value	0.859	Data appear Lognormal at 10% Significance Level	
Lilliefors Test Statistic	0.25	**Lilliefors Lognormal GOF Test**	
10% Lilliefors Critical Value	0.252	Data appear Lognormal at 10% Significance Level	

Data appear Lognormal at 10% Significance Level

Note GOF tests may be unreliable for small sample sizes

Lognormal Statistics

Minimum of Logged Data	2.747	Mean of logged Data	3.434
Maximum of Logged Data	3.957	SD of logged Data	0.423

Assuming Lognormal Distribution

95% H-UCL	46.83	90% Chebyshev (MVUE) UCL	47.91
95% Chebyshev (MVUE) UCL	54.4	97.5% Chebyshev (MVUE) UCL	63.43
99% Chebyshev (MVUE) UCL	81.15		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution

Nonparametric Distribution Free UCLs

95% CLT UCL	40.95	95% BCA Bootstrap UCL	40.59
95% Standard Bootstrap UCL	40.43	95% Bootstrap-t UCL	42.63
95% Hall's Bootstrap UCL	39.58	95% Percentile Bootstrap UCL	40.28
90% Chebyshev(Mean, Sd) UCL	47.09	95% Chebyshev(Mean, Sd) UCL	53.24
97.5% Chebyshev(Mean, Sd) UCL	61.79	99% Chebyshev(Mean, Sd) UCL	78.57

Suggested UCL to Use

95% Student's-t UCL	41.92

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

2378-TCDD-eq

General Statistics

Total Number of Observations	9	Number of Distinct Observations	7
Number of Detects	6	Number of Non-Detects	3
Number of Distinct Detects	6	Number of Distinct Non-Detects	1
Minimum Detect	1.4000E-8	Minimum Non-Detect	0
Maximum Detect	1.0034E-5	Maximum Non-Detect	0
Variance Detects	1.644E-11	Percent Non-Detects	33.33%
Mean Detects	1.7591E-6	SD Detects	4.0542E-6
Median Detects	1.0395E-7	CV Detects	N/A
Skewness Detects	2.448	Kurtosis Detects	5.995

Note: Sample size is small (e.g., <10), if data are collected using incremental sampling methodology (ISM) approach,
refer also to ITRC Tech Reg Guide on ISM (ITRC 2020 and ITRC 2012) for additional guidance,
but note that ITRC may recommend the t-UCL or the Chebyshev UCL for small sample sizes (n < 7).
The Chebyshev UCL often results in gross overestimates of the mean.
Refer to the ProUCL 5.2 Technical Guide for a discussion of the Chebyshev UCL.

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.511	**Shapiro Wilk GOF Test**	
1% Shapiro Wilk Critical Value	0.713	Detected Data Not Normal at 1% Significance Level	
Lilliefors Test Statistic	0.482	**Lilliefors GOF Test**	
1% Lilliefors Critical Value	0.373	Detected Data Not Normal at 1% Significance Level	

Detected Data Not Normal at 1% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	1.1727E-6	KM Standard Error of Mean	1.1442E-6
90KM SD	3.1335E-6	95% KM (BCA) UCL	3.3872E-6
95% KM (t) UCL	3.3004E-6	95% KM (Percentile Bootstrap) UCL	3.3783E-6
95% KM (z) UCL	3.0548E-6	95% KM Bootstrap t UCL	7.8240E-5
90% KM Chebyshev UCL	4.6054E-6	95% KM Chebyshev UCL	6.1602E-6
97.5% KM Chebyshev UCL	8.3183E-6	99% KM Chebyshev UCL	1.2557E-5

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	1.028	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.767	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.422	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.357	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.298	k star (bias corrected MLE)	0.26

Theta hat (MLE)	5.9018E-6	Theta star (bias corrected MLE)	6.7621E-6
nu hat (MLE)	3.577	nu star (bias corrected)	3.122
Mean (detects)	1.7591E-6		

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	1.1727E-6	SD (KM)	3.1335E-6
Variance (KM)	9.819E-12	SE of Mean (KM)	1.1442E-6
k hat (KM)	0.14	k star (KM)	0.167
nu hat (KM)	2.521	nu star (KM)	3.014
theta hat (KM)	8.3727E-6	theta star (KM)	7.0035E-6
80% gamma percentile (KM)	1.3874E-6	90% gamma percentile (KM)	3.5200E-6
95% gamma percentile (KM)	6.3081E-6	99% gamma percentile (KM)	1.4226E-5

Gamma Kaplan-Meier (KM) Statistics

		Adjusted Level of Significance (β)	0.0231
Approximate Chi Square Value (3.01, α)	0.377	Adjusted Chi Square Value (3.01, β)	0.238
95% KM Approximate Gamma UCL	9.3856E-6	95% KM Adjusted Gamma UCL	1.4860E-5

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	N/A	KM Geo Mean	N/A
KM SD (logged)	N/A	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	N/A	95% H-UCL (KM -Log)	N/A
KM SD (logged)	N/A	95% Critical H Value (KM-Log)	N/A
KM Standard Error of Mean (logged)	N/A		

DL/2 Statistics

Mean in Original Scale	1.1727E-6	SD in Original Scale	3.3236E-6
95% t UCL (Assumes normality)	3.2329E-6		

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution

Suggested UCL to Use

95% KM (t) UCL	3.3004E-6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Naphthalene

General Statistics

Total Number of Observations	9	Number of Distinct Observations	9
Number of Detects	1	Number of Non-Detects	8

Number of Distinct Detects	1	Number of Distinct Non-Detects	8

Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!

It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).

The data set for variable Naphthalene was not processed!

Appendix F
Ecological Risk Evaluation Table

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-36-0	I	Metal	Antimony	mg/kg	4.59	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-36-0	I	Metal	Antimony	mg/kg	4.56	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-36-0	I	Metal	Antimony	mg/kg	4.47	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-36-0	I	Metal	Antimony	mg/kg	4.31	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-36-0	I	Metal	Antimony	mg/kg	4.21	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-36-0	I	Metal	Antimony	mg/kg	4.11	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-36-0	I	Metal	Antimony	mg/kg	3.89	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-36-0	I	Metal	Antimony	mg/kg	3.31	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-36-0	I	Metal	Antimony	mg/kg	3.22	U	N	0.67	0.27	2.7	--	342	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-38-2	I	Metal	Arsenic	mg/kg	5.26		Y	19	6.8	31	145	372	0.0129	0.02146	3E-01	8E-01	2E-01	4E-02	1E-02	5E-04	3E-04	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-38-2	I	Metal	Arsenic	mg/kg	2.32	J	Y	19	6.8	31	145	372	0.0129	0.02146	1E-01	3E-01	7E-02	2E-02	6E-03	2E-04	1E-04	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-38-2	I	Metal	Arsenic	mg/kg	2.31	J	Y	19	6.8	31	145	372	0.0129	0.02146	1E-01	3E-01	7E-02	2E-02	6E-03	2E-04	1E-04	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-38-2	I	Metal	Arsenic	mg/kg	2.22	U	N	19	6.8	31	145	372	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-38-2	I	Metal	Arsenic	mg/kg	2.21	J	Y	19	6.8	31	145	372	0.0129	0.02146	1E-01	3E-01	7E-02	2E-02	6E-03	2E-04	1E-04	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-38-2	I	Metal	Arsenic	mg/kg	2.18	U	N	19	6.8	31	145	372	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-38-2	I	Metal	Arsenic	mg/kg	2.1	U	N	19	6.8	31	145	372	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-38-2	I	Metal	Arsenic	mg/kg	2.05	U	N	19	6.8	31	145	372	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-38-2	I	Metal	Arsenic	mg/kg	2	U	N	19	6.8	31	145	372	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-39-3	I	Metal	Barium	mg/kg	398		Y	630	110	1200	--	--	0.0129	0.02146	6E-01	4E+00	3E-01	--	--	--	--	<1	4E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-39-3	I	Metal	Barium	mg/kg	378		Y	630	110	1200	--	--	0.0129	0.02146	6E-01	3E+00	3E-01	--	--	--	--	<1	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-39-3	I	Metal	Barium	mg/kg	323		Y	630	110	1200	--	--	0.0129	0.02146	5E-01	3E+00	3E-01	--	--	--	--	<1	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-39-3	I	Metal	Barium	mg/kg	280		Y	630	110	1200	--	--	0.0129	0.02146	4E-01	3E+00	2E-01	--	--	--	--	<1	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-39-3	I	Metal	Barium	mg/kg	267		Y	630	110	1200	--	--	0.0129	0.02146	4E-01	2E+00	2E-01	--	--	--	--	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-39-3	I	Metal	Barium	mg/kg	253		Y	630	110	1200	--	--	0.0129	0.02146	4E-01	2E+00	2E-01	--	--	--	--	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-39-3	I	Metal	Barium	mg/kg	203		Y	630	110	1200	--	--	0.0129	0.02146	3E-01	2E+00	2E-01	--	--	--	--	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-39-3	I	Metal	Barium	mg/kg	194		Y	630	110	1200	--	--	0.0129	0.02146	3E-01	2E+00	2E-01	--	--	--	--	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-39-3	I	Metal	Barium	mg/kg	151		Y	630	110	1200	--	--	0.0129	0.02146	2E-01	1E+00	1E-01	--	--	--	--	<1	1E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-41-7	I	Metal	Beryllium	mg/kg	1.59		Y	2.1	2.5	42	--	--	0.0129	0.02146	8E-01	6E-01	4E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-41-7	I	Metal	Beryllium	mg/kg	1.47		Y	2.1	2.5	42	--	--	0.0129	0.02146	7E-01	6E-01	4E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-41-7	I	Metal	Beryllium	mg/kg	1.38		Y	2.1	2.5	42	--	--	0.0129	0.02146	7E-01	6E-01	3E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-41-7	I	Metal	Beryllium	mg/kg	1.32		Y	2.1	2.5	42	--	--	0.0129	0.02146	6E-01	5E-01	3E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-41-7	I	Metal	Beryllium	mg/kg	1.29		Y	2.1	2.5	42	--	--	0.0129	0.02146	6E-01	5E-01	3E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-41-7	I	Metal	Beryllium	mg/kg	1.28		Y	2.1	2.5	42	--	--	0.0129	0.02146	6E-01	5E-01	3E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-41-7	I	Metal	Beryllium	mg/kg	0.768		Y	2.1	2.5	42	--	--	0.0129	0.02146	4E-01	3E-01	2E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-41-7	I	Metal	Beryllium	mg/kg	0.732		Y	2.1	2.5	42	--	--	0.0129	0.02146	3E-01	3E-01	2E-02	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-41-7	I	Metal	Beryllium	mg/kg	0.338	J	Y	2.1	2.5	42	--	--	0.0129	0.02146	2E-01	1E-01	8E-03	--	--	--	--	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-43-9	I	Metal	Cadmium	mg/kg	0.263	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-43-9	I	Metal	Cadmium	mg/kg	0.261	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-43-9	I	Metal	Cadmium	mg/kg	0.257	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-43-9	I	Metal	Cadmium	mg/kg	0.248	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-43-9	I	Metal	Cadmium	mg/kg	0.242	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-43-9	I	Metal	Cadmium	mg/kg	0.236	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-43-9	I	Metal	Cadmium	mg/kg	0.223	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-43-9	I	Metal	Cadmium	mg/kg	0.19	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-43-9	I	Metal	Cadmium	mg/kg	0.185	U	N	0.54	0.27	1.6	6.5	8.3	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-47-3	I	Metal	Chromium	mg/kg	62.2		Y	200	23	73	334	1950	0.0129	0.02146	3E-01	3E+00	9E-01	2E-01	3E-02	2E-03	7E-04	<1	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-47-3	I	Metal	Chromium	mg/kg	60.1		Y	200	23	73	334	1950	0.0129	0.02146	3E-01	3E+00	8E-01	2E-01	3E-02	2E-03	7E-04	<1	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-47-3	I	Metal	Chromium	mg/kg	56.7		Y	200	23	73	334	1950	0.0129	0.02146	3E-01	2E+00	8E-01	2E-01	3E-02	2E-03	6E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-47-3	I	Metal	Chromium	mg/kg	56.5		Y	200	23	73	334	1950	0.0129	0.02146	3E-01	2E+00	8E-01	2E-01	3E-02	2E-03	6E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-47-3	I	Metal	Chromium	mg/kg	56.5		Y	200	23	73	334	1950	0.0129	0.02146	3E-01	2E+00	8E-01	2E-01	3E-02	2E-03	6E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-47-3	I	Metal	Chromium	mg/kg	56.1		Y	200	23	73	334	1950	0.0129	0.02146	3E-01	2E+00	8E-01	2E-01	3E-02	2E-03	6E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-47-3	I	Metal	Chromium	mg/kg	55.1		Y	200	23	73	334	1950	0.0129	0.02146	3E-01	2E+00	8E-01	2E-01	3E-02	2E-03	6E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-47-3	I	Metal	Chromium	mg/kg	44.9		Y	200	23	73	334	1950	0.0129	0.02146	2E-01	2E+00	6E-01	1E-01	2E-02	2E-03	5E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-47-3	I	Metal	Chromium	mg/kg	22.6		Y	200	23	73	334	1950	0.0129	0.02146	1E-01	1E+00	3E-01	7E-02	1E-02	9E-04	2E-04	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-48-4	I	Metal	Cobalt	mg/kg	52.3		Y	--	13	170	--	--	0.0129	0.02146	--	4E+00	3E-01	--	--	--	--	--	4E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-48-4	I	Metal	Cobalt	mg/kg	48.6		Y	--	13	170	--	--	0.0129	0.02146	--	4E+00	3E-01	--	--	--	--	--	4E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-48-4	I	Metal	Cobalt	mg/kg	47.6		Y	--	13	170	--	--	0.0129	0.02146	--	4E+00	3E-01	--	--	--	--	--	4E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-48-4	I	Metal	Cobalt	mg/kg	39.9		Y	--	13	170	--	--	0.0129	0.02146	--	3E+00	2E-01	--	--	--	--	--	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-48-4	I	Metal	Cobalt	mg/kg	25		Y	--	13	170	--	--	0.0129	0.02146	--	2E+00	1E-01	--	--	--	--	--	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-48-4	I	Metal	Cobalt	mg/kg	24.9		Y	--	13	170	--	--	0.0129	0.02146	--	2E+00	1E-01	--	--	--	--	--	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-48-4	I	Metal	Cobalt	mg/kg	24.6		Y	--	13	170	--	--	0.0129	0.02146	--	2E+00	1E-01	--	--	--	--	--	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-48-4	I	Metal	Cobalt	mg/kg	23		Y	--	13	170	--	--	0.0129	0.02146	--	2E+00	1E-01	--	--	--	--	--	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-48-4	I	Metal	Cobalt	mg/kg	15.6		Y	--	13	170	--	--	0.0129	0.02146	--	1E+00	9E-02	--	--	--	--	--	1E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-50-8	I	Metal	Copper	mg/kg	115		Y	73	14	43	320	980	0.0129	0.02146	2E+00	8E+00	3E+00	4E-01	1E-01	5E-03	3E-03	2E+00	8E+00	3E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-50-8	I	Metal	Copper	mg/kg	104		Y	73	14	43	320	980	0.0129	0.02146	1E+00	7E+00	2E+00	3E-01	1E-01	4E-03	2E-03	1E+00	7E+00	2E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-50-8	I	Metal	Copper	mg/kg	90.3		Y	73	14	43	320	980	0.0129	0.02146	1E+00	6E+00	2E+00	3E-01	9E-02	4E-03	2E-03	1E+00	6E+00	2E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-50-8	I	Metal	Copper	mg/kg	84.1		Y	73	14	43	320	980	0.0129	0.02146	1E+00	6E+00	2E+00	3E-01	9E-02	3E-03	2E-03	1E+00	6E+00	2E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-50-8	I	Metal	Copper	mg/kg	83.9		Y	73	14	43	320	980	0.0129	0.02146	1E+00	6E+00	2E+00	3E-01	9E-02	3E-03	2E-03	1E+00	6E+00	2E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-50-8	I	Metal	Copper	mg/kg	82.9		Y	73	14	43	320	980	0.0129	0.02146	1E+00	6E+00	2E+00	3E-01	8E-02	3E-03	2E-03	1E+00	6E+00	2E+00	<1	<1	<1	<1

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a] No Effect ESL	Screening Levels[a] Low Effect ESL	Site-Specific EcoPRGs[b] Bird EcoPRG	Site-Specific EcoPRGs[b] Mammal EcoPRG	Area Use Factors[c] Bird	Area Use Factors[c] Mammal	Screening HQs Bkg HQ	Screening HQs No Effect HQ	Screening HQs Low Effect HQ	Site-Specific EcoPRG HQs Bird HQ	Site-Specific EcoPRG HQs Mammal HQ	Area Use Adjusted EcoPRG Bird HQ	Area Use Adjusted EcoPRG Mammal I HQ	Summary Bkg HQ	Summary No Effect HQ	Summary Low Effect HQ	Summary Bird EcoPRG HQ	Summary Mammal I EcoPRG HQ	Summary Bird AUF EcoPRG HQ	Summary Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-50-8	I	Metal	Copper	mg/kg	52.7		Y	73	14	43	320	980	0.0129	0.02146	7E-01	4E+00	1E+00	2E-01	5E-02	2E-03	1E-03	<1	4E+00	1E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-50-8	I	Metal	Copper	mg/kg	52.2		Y	73	14	43	320	980	0.0129	0.02146	7E-01	4E+00	1E+00	2E-01	5E-02	2E-03	1E-03	<1	4E+00	1E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-50-8	I	Metal	Copper	mg/kg	41.6		Y	73	14	43	320	980	0.0129	0.02146	6E-01	3E+00	1E+00	1E-01	4E-02	2E-03	9E-04	<1	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7439-92-1	I	Metal	Lead	mg/kg	8.67		Y	34	11	23	721	4482	0.0129	0.02146	3E-01	8E-01	4E-01	1E-02	2E-03	2E-04	4E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7439-92-1	I	Metal	Lead	mg/kg	8.62		Y	34	11	23	721	4482	0.0129	0.02146	3E-01	8E-01	4E-01	1E-02	2E-03	2E-04	4E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7439-92-1	I	Metal	Lead	mg/kg	8.11		Y	34	11	23	721	4482	0.0129	0.02146	2E-01	7E-01	4E-01	1E-02	2E-03	1E-04	4E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7439-92-1	I	Metal	Lead	mg/kg	8.06		Y	34	11	23	721	4482	0.0129	0.02146	2E-01	7E-01	4E-01	1E-02	2E-03	1E-04	4E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7439-92-1	I	Metal	Lead	mg/kg	7.32		Y	34	11	23	721	4482	0.0129	0.02146	2E-01	7E-01	3E-01	1E-02	2E-03	1E-04	4E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7439-92-1	I	Metal	Lead	mg/kg	7.18		Y	34	11	23	721	4482	0.0129	0.02146	2E-01	7E-01	3E-01	1E-02	2E-03	1E-04	3E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7439-92-1	I	Metal	Lead	mg/kg	5.42		Y	34	11	23	721	4482	0.0129	0.02146	2E-01	5E-01	2E-01	8E-03	1E-03	1E-04	3E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7439-92-1	I	Metal	Lead	mg/kg	5.16		Y	34	11	23	721	4482	0.0129	0.02146	2E-01	5E-01	2E-01	7E-03	1E-03	9E-05	2E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7439-92-1	I	Metal	Lead	mg/kg	3.86		Y	34	11	23	721	4482	0.0129	0.02146	1E-01	4E-01	2E-01	5E-03	9E-04	7E-05	2E-05	<1	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7439-97-6	I	Metal	Mercury	mg/kg	0.0511	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7439-97-6	I	Metal	Mercury	mg/kg	0.049	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7439-97-6	I	Metal	Mercury	mg/kg	0.049	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7439-97-6	I	Metal	Mercury	mg/kg	0.0487	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7439-97-6	I	Metal	Mercury	mg/kg	0.0474	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7439-97-6	I	Metal	Mercury	mg/kg	0.0452	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7439-97-6	I	Metal	Mercury	mg/kg	0.0445	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7439-97-6	I	Metal	Mercury	mg/kg	0.0357	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7439-97-6	I	Metal	Mercury	mg/kg	0.035	U	N	0.24	0.013	0.13	2.9	53	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7439-98-7	I	Metal	Molybdenum	mg/kg	0.827	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7439-98-7	I	Metal	Molybdenum	mg/kg	0.821	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7439-98-7	I	Metal	Molybdenum	mg/kg	0.807	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7439-98-7	I	Metal	Molybdenum	mg/kg	0.777	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7439-98-7	I	Metal	Molybdenum	mg/kg	0.766	J	Y	--	2.6	26	--	--	0.0129	0.02146	--	3E-01	3E-02	--	--	--	--	--	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7439-98-7	I	Metal	Molybdenum	mg/kg	0.759	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7439-98-7	I	Metal	Molybdenum	mg/kg	0.741	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7439-98-7	I	Metal	Molybdenum	mg/kg	0.597	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7439-98-7	I	Metal	Molybdenum	mg/kg	0.58	U	N	--	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-02-0	I	Metal	Nickel	mg/kg	81.8		Y	110	10	21	123	119	0.0129	0.02146	7E-01	8E+00	4E+00	7E-01	7E-01	9E-03	1E-02	<1	8E+00	4E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-02-0	I	Metal	Nickel	mg/kg	79.7		Y	110	10	21	123	119	0.0129	0.02146	7E-01	8E+00	4E+00	6E-01	7E-01	8E-03	1E-02	<1	8E+00	4E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-02-0	I	Metal	Nickel	mg/kg	79		Y	110	10	21	123	119	0.0129	0.02146	7E-01	8E+00	4E+00	6E-01	7E-01	8E-03	1E-02	<1	8E+00	4E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-02-0	I	Metal	Nickel	mg/kg	69.2		Y	110	10	21	123	119	0.0129	0.02146	6E-01	7E+00	3E+00	6E-01	6E-01	7E-03	1E-02	<1	7E+00	3E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-02-0	I	Metal	Nickel	mg/kg	65.3		Y	110	10	21	123	119	0.0129	0.02146	6E-01	7E+00	3E+00	5E-01	5E-01	7E-03	1E-02	<1	7E+00	3E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-02-0	I	Metal	Nickel	mg/kg	61.6		Y	110	10	21	123	119	0.0129	0.02146	6E-01	6E+00	3E+00	5E-01	5E-01	6E-03	1E-02	<1	6E+00	3E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-02-0	I	Metal	Nickel	mg/kg	55.1		Y	110	10	21	123	119	0.0129	0.02146	5E-01	6E+00	3E+00	4E-01	5E-01	6E-03	1E-02	<1	6E+00	3E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-02-0	I	Metal	Nickel	mg/kg	54.9		Y	110	10	21	123	119	0.0129	0.02146	5E-01	5E+00	3E+00	4E-01	5E-01	6E-03	1E-02	<1	5E+00	3E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-02-0	I	Metal	Nickel	mg/kg	49.9		Y	110	10	21	123	119	0.0129	0.02146	5E-01	5E+00	2E+00	4E-01	4E-01	5E-03	9E-03	<1	5E+00	2E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7782-49-2	I	Metal	Selenium	mg/kg	2.23	J	Y	0.52	0.52	1	6.1	6.1	0.0129	0.02146	4E+00	4E+00	2E+00	4E-01	4E-01	5E-03	8E-03	4E+00	4E+00	2E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7782-49-2	I	Metal	Selenium	mg/kg	1.96	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7782-49-2	I	Metal	Selenium	mg/kg	1.95	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7782-49-2	I	Metal	Selenium	mg/kg	1.91	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7782-49-2	I	Metal	Selenium	mg/kg	1.84	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7782-49-2	I	Metal	Selenium	mg/kg	1.76	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7782-49-2	I	Metal	Selenium	mg/kg	1.66	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7782-49-2	I	Metal	Selenium	mg/kg	1.42	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7782-49-2	I	Metal	Selenium	mg/kg	1.38	U	N	0.52	0.52	1	6.1	6.1	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-22-4	I	Metal	Silver	mg/kg	0.231	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-22-4	I	Metal	Silver	mg/kg	0.23	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-22-4	I	Metal	Silver	mg/kg	0.226	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-22-4	I	Metal	Silver	mg/kg	0.217	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-22-4	I	Metal	Silver	mg/kg	0.212	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-22-4	I	Metal	Silver	mg/kg	0.207	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-22-4	I	Metal	Silver	mg/kg	0.196	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-22-4	I	Metal	Silver	mg/kg	0.167	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-22-4	I	Metal	Silver	mg/kg	0.162	U	N	0.17	2.6	26	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-28-0	I	Metal	Thallium	mg/kg	3.38	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-28-0	I	Metal	Thallium	mg/kg	3.36	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-28-0	I	Metal	Thallium	mg/kg	3.3	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-28-0	I	Metal	Thallium	mg/kg	3.18	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-28-0	I	Metal	Thallium	mg/kg	3.1	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-28-0	I	Metal	Thallium	mg/kg	3.03	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-28-0	I	Metal	Thallium	mg/kg	2.87	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-28-0	I	Metal	Thallium	mg/kg	2.44	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-28-0	I	Metal	Thallium	mg/kg	2.37	U	N	2.8	0.05	4.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-62-2	I	Metal	Vanadium	mg/kg	219		Y	280	4.7	9.5	61	810	0.0129	0.02146	8E-01	5E+01	2E+01	4E+00	3E-01	5E-02	6E-03	<1	5E+01	2E+01	4E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-62-2	I	Metal	Vanadium	mg/kg	209		Y	280	4.7	9.5	61	810	0.0129	0.02146	7E-01	4E+01	2E+01	3E+00	3E-01	4E-02	6E-03	<1	4E+01	2E+01	3E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-62-2	I	Metal	Vanadium	mg/kg	198		Y	280	4.7	9.5	61	810	0.0129	0.02146	7E-01	4E+01	2E+01	3E+00	2E-01	4E-02	5E-03	<1	4E+01	2E+01	3E+00	<1	<1	<1

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-62-2	I	Metal	Vanadium	mg/kg	183		Y	280	4.7	9.5	61	810	0.0129	0.02146	7E-01	4E+01	2E+01	3E+00	2E-01	4E-02	5E-03	<1	4E+01	2E+01	3E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-62-2	I	Metal	Vanadium	mg/kg	179		Y	280	4.7	9.5	61	810	0.0129	0.02146	6E-01	4E+01	2E+01	3E+00	2E-01	4E-02	5E-03	<1	4E+01	2E+01	3E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-62-2	I	Metal	Vanadium	mg/kg	156		Y	280	4.7	9.5	61	810	0.0129	0.02146	6E-01	3E+01	2E+01	3E+00	2E-01	3E-02	4E-03	<1	3E+01	2E+01	3E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-62-2	I	Metal	Vanadium	mg/kg	142		Y	280	4.7	9.5	61	810	0.0129	0.02146	5E-01	3E+01	1E+01	2E+00	2E-01	3E-02	4E-03	<1	3E+01	1E+01	2E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-62-2	I	Metal	Vanadium	mg/kg	123		Y	280	4.7	9.5	61	810	0.0129	0.02146	4E-01	3E+01	1E+01	2E+00	2E-01	3E-02	3E-03	<1	3E+01	1E+01	2E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-62-2	I	Metal	Vanadium	mg/kg	65.6		Y	280	4.7	9.5	61	810	0.0129	0.02146	2E-01	1E+01	7E+00	1E+00	8E-02	1E-02	2E-03	<1	1E+01	7E+00	1E+00	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7440-66-6	I	Metal	Zinc	mg/kg	490		Y	170	46	120	1076	7743	0.0129	0.02146	3E+00	1E+01	4E+00	5E-01	6E-02	6E-03	1E-03	3E+00	1E+01	4E+00	<1	<1	<1	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7440-66-6	I	Metal	Zinc	mg/kg	76.9		Y	170	46	120	1076	7743	0.0129	0.02146	5E-01	2E+00	6E-01	7E-02	1E-02	9E-04	2E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7440-66-6	I	Metal	Zinc	mg/kg	76		Y	170	46	120	1076	7743	0.0129	0.02146	4E-01	2E+00	6E-01	7E-02	1E-02	9E-04	2E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7440-66-6	I	Metal	Zinc	mg/kg	74.3		Y	170	46	120	1076	7743	0.0129	0.02146	4E-01	2E+00	6E-01	7E-02	1E-02	9E-04	2E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7440-66-6	I	Metal	Zinc	mg/kg	73.4		Y	170	46	120	1076	7743	0.0129	0.02146	4E-01	2E+00	6E-01	7E-02	9E-03	9E-04	2E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7440-66-6	I	Metal	Zinc	mg/kg	71.5		Y	170	46	120	1076	7743	0.0129	0.02146	4E-01	2E+00	6E-01	7E-02	9E-03	9E-04	2E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7440-66-6	I	Metal	Zinc	mg/kg	71.4		Y	170	46	120	1076	7743	0.0129	0.02146	4E-01	2E+00	6E-01	7E-02	9E-03	9E-04	2E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7440-66-6	I	Metal	Zinc	mg/kg	69		Y	170	46	120	1076	7743	0.0129	0.02146	4E-01	2E+00	6E-01	6E-02	9E-03	8E-04	2E-04	<1	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7440-66-6	I	Metal	Zinc	mg/kg	65.2		Y	170	46	120	1076	7743	0.0129	0.02146	4E-01	1E+00	5E-01	6E-02	8E-03	8E-04	2E-04	<1	1E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	4.93E-05		Y	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	--	9E+01	9E+00	6E-01	--	7E-03	--	--	9E+01	9E+00	<1	--	<1	--
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	1.38E-06		Y	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	--	3E+00	3E-01	2E-02	--	2E-04	--	--	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	9.24E-07		Y	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	--	2E+00	2E-01	1E-02	--	1E-04	--	--	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	5.42E-07		Y	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	--	1E+00	1E-01	6E-03	--	8E-05	--	--	1E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	1.4E-08		Y	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	--	3E-02	3E-03	2E-04	--	2E-06	--	--	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	1.1E-08		Y	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	--	2E-02	2E-03	1E-04	--	2E-06	--	--	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	0	U	N	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	0	U	N	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	TEQ-B0	O	DXN	2,3,7,8-TCDD TEQ Bird	mg/kg	0	U	N	--	5.2E-07	5.2E-06	8.64E-05	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	1.00E-05		Y	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	--	3E+02	4E+01	--	1E+00	--	3E-02	--	3E+02	4E+01	--	1E+00	--	<1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	2.15E-07		Y	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	--	6E+00	9E-01	--	3E-02	--	7E-04	--	6E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	1.12E-07		Y	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	--	3E+00	4E-01	--	2E-02	--	4E-04	--	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	9.56E-08		Y	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	--	3E+00	4E-01	--	1E-02	--	3E-04	--	3E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	8.45E-08		Y	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	--	2E+00	3E-01	--	1E-02	--	3E-04	--	2E+00	<1	step 2	step 2	step 2	step 2
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	1.4E-08		Y	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	--	4E-01	6E-02	--	2E-03	--	4E-05	--	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	0	U	N	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	0	U	N	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	TEQ-M0	O	DXN	2,3,7,8-TCDD TEQ Mammal	mg/kg	0	U	N	--	3.7E-08	2.5E-07	--	6.85E-06	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.073	J	Y	--	--	--	--	--	0.0129	0.02146	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.057	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.057	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.056	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.054	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.053	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.052	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.049	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	90-12-0	O	PAH	1-Methylnaphthalene	mg/kg	0.042	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.13	J	Y	--	16	160	--	--	0.0129	0.02146	--	8E-03	8E-04	--	--	--	--	--	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.09	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.089	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.089	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.084	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.083	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.082	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.077	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	91-57-6	O	PAH	2-Methylnaphthalene	mg/kg	0.066	U	N	--	16	160	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	83-32-9	O	PAH	Acenaphthene	mg/kg	0.085	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	83-32-9	O	PAH	Acenaphthene	mg/kg	0.084	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	83-32-9	O	PAH	Acenaphthene	mg/kg	0.084	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	83-32-9	O	PAH	Acenaphthene	mg/kg	0.08	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	83-32-9	O	PAH	Acenaphthene	mg/kg	0.079	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	83-32-9	O	PAH	Acenaphthene	mg/kg	0.078	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	83-32-9	O	PAH	Acenaphthene	mg/kg	0.073	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	83-32-9	O	PAH	Acenaphthene	mg/kg	0.062	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	83-32-9	O	PAH	Acenaphthene	mg/kg	0.058	U	N	--	0.25	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.15	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.15	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.15	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.14	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.14	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.14	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.13	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.11	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	208-96-8	O	PAH	Acenaphthylene	mg/kg	0.1	U	N	--	120	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	120-12-7	O	PAH	Anthracene	mg/kg	0.08	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	120-12-7	O	PAH	Anthracene	mg/kg	0.079	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	120-12-7	O	PAH	Anthracene	mg/kg	0.079	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	120-12-7	O	PAH	Anthracene	mg/kg	0.075	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	120-12-7	O	PAH	Anthracene	mg/kg	0.074	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	120-12-7	O	PAH	Anthracene	mg/kg	0.073	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	120-12-7	O	PAH	Anthracene	mg/kg	0.068	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	120-12-7	O	PAH	Anthracene	mg/kg	0.059	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	120-12-7	O	PAH	Anthracene	mg/kg	0.055	U	N	--	6.8	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.072	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.071	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.071	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.068	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.067	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.066	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.061	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.053	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	56-55-3	O	PAH	Benzo(a)anthracene	mg/kg	0.049	U	N	--	0.73	7.3	683	155	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.12	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.12	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.12	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.11	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.11	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.11	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.1	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.089	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	50-32-8	O	PAH	Benzo(a)pyrene	mg/kg	0.083	U	N	--	62	190	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.13	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.12	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.12	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.12	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.12	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.11	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.11	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.092	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	205-99-2	O	PAH	Benzo(b)fluoranthene	mg/kg	0.086	U	N	--	18	440	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.13	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.13	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.13	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.12	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.12	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.12	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.11	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.097	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	191-24-2	O	PAH	Benzo(g,h,i)perylene	mg/kg	0.09	U	N	--	25	250	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.15	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.15	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.15	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.14	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.14	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.14	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.13	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.11	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	207-08-9	O	PAH	Benzo(k)fluoranthene	mg/kg	0.1	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	218-01-9	O	PAH	Chrysene	mg/kg	0.11	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	218-01-9	O	PAH	Chrysene	mg/kg	0.11	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	218-01-9	O	PAH	Chrysene	mg/kg	0.11	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	218-01-9	O	PAH	Chrysene	mg/kg	0.1	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	218-01-9	O	PAH	Chrysene	mg/kg	0.099	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	218-01-9	O	PAH	Chrysene	mg/kg	0.097	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	218-01-9	O	PAH	Chrysene	mg/kg	0.091	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	218-01-9	O	PAH	Chrysene	mg/kg	0.078	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	218-01-9	O	PAH	Chrysene	mg/kg	0.073	U	N	--	3.1	31	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.16	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.16	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.16	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.15	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.15	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.15	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

														Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.14	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.12	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	53-70-3	O	PAH	Dibenzo(a,h)anthracene	mg/kg	0.11	U	N	--	14	140	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	206-44-0	O	PAH	Fluoranthene	mg/kg	0.092	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	206-44-0	O	PAH	Fluoranthene	mg/kg	0.091	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	206-44-0	O	PAH	Fluoranthene	mg/kg	0.091	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	206-44-0	O	PAH	Fluoranthene	mg/kg	0.086	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	206-44-0	O	PAH	Fluoranthene	mg/kg	0.085	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	206-44-0	O	PAH	Fluoranthene	mg/kg	0.084	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	206-44-0	O	PAH	Fluoranthene	mg/kg	0.079	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	206-44-0	O	PAH	Fluoranthene	mg/kg	0.068	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	206-44-0	O	PAH	Fluoranthene	mg/kg	0.063	U	N	--	10	220	360	80	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	86-73-7	O	PAH	Fluorene	mg/kg	0.1	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	86-73-7	O	PAH	Fluorene	mg/kg	0.1	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	86-73-7	O	PAH	Fluorene	mg/kg	0.1	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	86-73-7	O	PAH	Fluorene	mg/kg	0.098	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	86-73-7	O	PAH	Fluorene	mg/kg	0.097	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	86-73-7	O	PAH	Fluorene	mg/kg	0.096	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	86-73-7	O	PAH	Fluorene	mg/kg	0.09	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	86-73-7	O	PAH	Fluorene	mg/kg	0.077	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	86-73-7	O	PAH	Fluorene	mg/kg	0.072	U	N	--	3.7	510	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.14	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.14	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.14	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.13	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.13	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.13	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.12	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	193-39-5	O	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.098	U	N	--	71	710	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	91-20-3	O	PAH	Naphthalene	mg/kg	0.17	J	Y	--	1	27	--	--	0.0129	0.02146	--	2E-01	6E-03	--	--	--	--	--	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	91-20-3	O	PAH	Naphthalene	mg/kg	0.091	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	91-20-3	O	PAH	Naphthalene	mg/kg	0.09	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	91-20-3	O	PAH	Naphthalene	mg/kg	0.089	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	91-20-3	O	PAH	Naphthalene	mg/kg	0.085	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	91-20-3	O	PAH	Naphthalene	mg/kg	0.084	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	91-20-3	O	PAH	Naphthalene	mg/kg	0.083	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	91-20-3	O	PAH	Naphthalene	mg/kg	0.077	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	91-20-3	O	PAH	Naphthalene	mg/kg	0.067	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	129-00-0	O	PAH	Pyrene	mg/kg	0.12	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	129-00-0	O	PAH	Pyrene	mg/kg	0.12	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	129-00-0	O	PAH	Pyrene	mg/kg	0.12	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	129-00-0	O	PAH	Pyrene	mg/kg	0.11	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	129-00-0	O	PAH	Pyrene	mg/kg	0.11	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	129-00-0	O	PAH	Pyrene	mg/kg	0.11	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	129-00-0	O	PAH	Pyrene	mg/kg	0.1	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	129-00-0	O	PAH	Pyrene	mg/kg	0.087	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	129-00-0	O	PAH	Pyrene	mg/kg	0.081	U	N	--	10	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.14	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.14	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.14	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.13	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.13	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.13	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.12	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.1	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	120-82-1	O	SVOC	1,2,4-Trichlorobenzene	mg/kg	0.096	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.12	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.12	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.12	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.11	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.11	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.11	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.1	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.086	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-50-1	O	SVOC	1,2-Dichlorobenzene	mg/kg	0.08	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.11	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.11	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.11	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.1	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.1	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.1	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.093	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.08	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	541-73-1	O	SVOC	1,3-Dichlorobenzene	mg/kg	0.075	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.11	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.11	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.11	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.1	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.1	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.1	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.095	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.082	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	106-46-7	O	SVOC	1,4-Dichlorobenzene	mg/kg	0.077	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.11	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.11	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.11	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.1	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.1	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.1	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.095	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.082	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-95-4	O	SVOC	2,4,5-Trichlorophenol	mg/kg	0.076	U	N	--	4	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.12	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.12	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.12	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.12	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.11	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.11	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.11	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.091	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	88-06-2	O	SVOC	2,4,6-Trichlorophenol	mg/kg	0.085	U	N	--	9.94	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.16	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.16	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.16	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.15	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.15	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.15	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.14	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.12	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	120-83-2	O	SVOC	2,4-Dichlorophenol	mg/kg	0.11	U	N	--	0.05	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.071	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.071	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.071	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.067	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.066	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.065	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.061	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.053	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	105-67-9	O	SVOC	2,4-Dimethylphenol	mg/kg	0.049	U	N	--	0.04	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	2.5	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	2.5	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	2.5	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	2.4	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	2.3	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	2.3	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	2.1	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	1.8	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	51-28-5	O	SVOC	2,4-Dinitrophenol	mg/kg	1.7	U	N	--	0.061	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.17	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.17	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.16	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.16	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.15	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.15	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.14	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.12	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	121-14-2	O	SVOC	2,4-Dinitrotoluene	mg/kg	0.11	U	N	--	14	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.096	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.095	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.094	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.087	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.075	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	87-65-0	O	SVOC	2,6-Dichlorophenol	mg/kg	0.07	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.092	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.092	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.091	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.087	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.086	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.085	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.079	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.068	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	606-20-2	O	SVOC	2,6-Dinitrotoluene	mg/kg	0.063	U	N	--	4	40	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.09	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.089	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.088	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.084	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.083	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.082	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.076	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.066	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	91-58-7	O	SVOC	2-Chloronaphthalene	mg/kg	0.061	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.16	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.15	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.15	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.15	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.14	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.14	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.13	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.11	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-57-8	O	SVOC	2-Chlorophenol	mg/kg	0.11	U	N	--	0.39	3.9	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.15	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.15	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.15	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.14	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.14	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.14	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.13	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.11	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-48-7	O	SVOC	2-Methylphenol	mg/kg	0.1	U	N	--	0.67	5800	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.1	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.1	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.1	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.096	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.095	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.094	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.088	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.075	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	88-74-4	O	SVOC	2-Nitroaniline	mg/kg	0.07	U	N	--	5.3	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.15	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	88-75-5	O	SVOC	2-Nitrophenol	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.34	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.34	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.34	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.32	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.32	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.31	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.29	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.25	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	65794-96-9	O	SVOC	3 & 4-Methylphenol (m,p-Cre	mg/kg	0.23	U	N	--	0.69	7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	1.3	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	1.3	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	1.3	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	1.2	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	1.2	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	1.2	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	1.1	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	0.94	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	91-94-1	O	SVOC	3,3'-Dichlorobenzidine	mg/kg	0.88	U	N	--	0.03	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.19	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.19	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.19	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.18	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.18	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.18	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.14	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	99-09-2	O	SVOC	3-Nitroaniline	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.5	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.5	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.5	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.4	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.4	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.4	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.3	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	534-52-1	O	SVOC	4,6-Dinitro-2-methylphenol	mg/kg	1.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.093	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.092	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.091	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.087	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.086	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.085	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.079	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.068	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	101-55-3	O	SVOC	4-Bromophenyl Phenyl Ether	mg/kg	0.064	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.098	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	59-50-7	O	SVOC	4-Chloro-3-methylphenol	mg/kg	0.091	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.11	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.11	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.11	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.11	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.11	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.1	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.097	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.084	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	106-47-8	O	SVOC	4-Chloroaniline	mg/kg	0.078	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.095	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.082	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	7005-72-3	O	SVOC	4-Chlorophenyl Phenylether	mg/kg	0.076	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.15	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.15	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.14	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	100-01-6	O	SVOC	4-Nitroaniline	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.26	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.26	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.26	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.25	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.24	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.24	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.23	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.19	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	100-02-7	O	SVOC	4-Nitrophenol	mg/kg	0.18	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	62-53-3	O	SVOC	Aniline	mg/kg	0.18	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	62-53-3	O	SVOC	Aniline	mg/kg	0.18	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	62-53-3	O	SVOC	Aniline	mg/kg	0.18	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	62-53-3	O	SVOC	Aniline	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	62-53-3	O	SVOC	Aniline	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	62-53-3	O	SVOC	Aniline	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	62-53-3	O	SVOC	Aniline	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	62-53-3	O	SVOC	Aniline	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	62-53-3	O	SVOC	Aniline	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	103-33-3	O	SVOC	Azobenzene	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	103-33-3	O	SVOC	Azobenzene	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	103-33-3	O	SVOC	Azobenzene	mg/kg	0.17	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	103-33-3	O	SVOC	Azobenzene	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	103-33-3	O	SVOC	Azobenzene	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	103-33-3	O	SVOC	Azobenzene	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	103-33-3	O	SVOC	Azobenzene	mg/kg	0.15	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	103-33-3	O	SVOC	Azobenzene	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	103-33-3	O	SVOC	Azobenzene	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	92-87-5	O	SVOC	Benzidine	mg/kg	2.2	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	92-87-5	O	SVOC	Benzidine	mg/kg	2.2	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	92-87-5	O	SVOC	Benzidine	mg/kg	2.2	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	92-87-5	O	SVOC	Benzidine	mg/kg	2.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	92-87-5	O	SVOC	Benzidine	mg/kg	2.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	92-87-5	O	SVOC	Benzidine	mg/kg	2.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	92-87-5	O	SVOC	Benzidine	mg/kg	1.9	UJ	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	92-87-5	O	SVOC	Benzidine	mg/kg	1.7	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	92-87-5	O	SVOC	Benzidine	mg/kg	1.5	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	65-85-0	O	SVOC	Benzoic Acid	mg/kg	2.5	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	65-85-0	O	SVOC	Benzoic Acid	mg/kg	2.5	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	65-85-0	O	SVOC	Benzoic Acid	mg/kg	2.5	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	65-85-0	O	SVOC	Benzoic Acid	mg/kg	2.3	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	65-85-0	O	SVOC	Benzoic Acid	mg/kg	2.3	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	65-85-0	O	SVOC	Benzoic Acid	mg/kg	2.3	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	65-85-0	O	SVOC	Benzoic Acid	mg/kg	2.1	UJ	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	65-85-0	O	SVOC	Benzoic Acid	mg/kg	1.8	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	65-85-0	O	SVOC	Benzoic Acid	mg/kg	1.7	U	N	--	1	10	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.13	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.13	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.13	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.13	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.12	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.12	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.11	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.099	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	100-51-6	O	SVOC	Benzyl Alcohol	mg/kg	0.092	U	N	--	0.002	1200	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.098	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.097	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.096	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.092	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.09	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.089	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.083	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.072	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	111-91-1	O	SVOC	Bis (2-chloroethoxy) methane	mg/kg	0.067	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.16	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.15	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.15	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.15	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.14	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	111-44-4	O	SVOC	Bis (2-chloroethyl) ether	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.094	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.093	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.093	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.088	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.087	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.086	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.08	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.069	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	39638-32-9	O	SVOC	bis (2-Chloroisopropyl) ether	mg/kg	0.065	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.39	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.39	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.39	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.37	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.37	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.36	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.34	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.29	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	117-81-7	O	SVOC	Bis (2-ethylhexyl) phthalate	mg/kg	0.27	U	N	--	0.02	0.2	--	193	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.35	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.35	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.34	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.33	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.32	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.32	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.3	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.26	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	85-68-7	O	SVOC	Butyl benzyl phthalate	mg/kg	0.24	U	N	--	90	900	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.15	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.15	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.15	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.14	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.14	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.14	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.13	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.11	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	132-64-9	O	SVOC	Dibenzofuran	mg/kg	0.1	U	N	--	6.1	61	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.096	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.095	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.095	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.09	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.089	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.088	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.082	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.071	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	84-66-2	O	SVOC	Diethylphthalate	mg/kg	0.066	U	N	--	100	18000	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.099	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.098	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.098	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.093	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.092	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.091	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.085	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.073	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	131-11-3	O	SVOC	Dimethylphthalate	mg/kg	0.068	U	N	--	10	400	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.11	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.11	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.11	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.11	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.11	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.11	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.098	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.085	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	84-74-2	O	SVOC	Di-N-Butylphthalate	mg/kg	0.079	U	N	--	0.011	0.11	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.57	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.56	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.56	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.53	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.52	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.52	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.48	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.42	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	117-84-0	O	SVOC	Di-n-octyl phthalate	mg/kg	0.39	U	N	--	0.91	4.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.14	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.14	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.14	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.14	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.13	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.13	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.12	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.11	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	118-74-1	O	SVOC	Hexachlorobenzene	mg/kg	0.099	U	N	--	0.079	0.79	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.079	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.078	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.078	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.074	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.073	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.072	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.067	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.058	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	87-68-3	O	SVOC	Hexachlorobutadiene	mg/kg	0.054	U	N	--	0.009	--	47	6.9	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.59	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.59	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.58	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.56	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.55	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.54	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.51	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.44	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	77-47-4	O	SVOC	Hexachlorocyclopentadiene	mg/kg	0.41	U	N	--	0.001	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.17	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.17	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.17	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.16	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.16	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.16	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.15	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.13	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	67-72-1	O	SVOC	Hexachloroethane	mg/kg	0.12	U	N	--	0.024	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	78-59-1	O	SVOC	Isophorone	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	78-59-1	O	SVOC	Isophorone	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	78-59-1	O	SVOC	Isophorone	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	78-59-1	O	SVOC	Isophorone	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	78-59-1	O	SVOC	Isophorone	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	78-59-1	O	SVOC	Isophorone	mg/kg	0.099	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	78-59-1	O	SVOC	Isophorone	mg/kg	0.092	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	78-59-1	O	SVOC	Isophorone	mg/kg	0.079	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	78-59-1	O	SVOC	Isophorone	mg/kg	0.074	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.14	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.14	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.14	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.14	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.13	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.13	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.12	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.11	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	98-95-3	O	SVOC	Nitrobenzene	mg/kg	0.099	U	N	--	2.2	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.089	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	62-75-9	O	SVOC	N-Nitrosodimethylamine	mg/kg	0.083	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.1	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.099	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.097	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.096	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.09	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.077	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	621-64-7	O	SVOC	N-Nitrosodi-N-propylamine	mg/kg	0.072	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.15	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.15	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.15	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.14	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.14	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.14	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.13	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.11	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	86-30-6	O	SVOC	N-Nitrosodiphenylamine	mg/kg	0.1	U	N	--	0.545	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.6	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.6	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.6	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.5	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.5	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.4	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.4	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.2	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	87-86-5	O	SVOC	Pentachlorophenol	mg/kg	1.1	U	N	--	0.36	3.6	37	18	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.096	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.095	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.095	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.09	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.089	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.088	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.082	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.071	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	85-01-8	O	SVOC	Phenanthrene	mg/kg	0.066	U	N	--	5.5	110	642	145	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	108-95-2	O	SVOC	Phenol	mg/kg	0.15	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	108-95-2	O	SVOC	Phenol	mg/kg	0.15	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	108-95-2	O	SVOC	Phenol	mg/kg	0.15	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	108-95-2	O	SVOC	Phenol	mg/kg	0.14	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	108-95-2	O	SVOC	Phenol	mg/kg	0.14	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	108-95-2	O	SVOC	Phenol	mg/kg	0.14	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	108-95-2	O	SVOC	Phenol	mg/kg	0.13	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	108-95-2	O	SVOC	Phenol	mg/kg	0.11	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	108-95-2	O	SVOC	Phenol	mg/kg	0.1	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	110-86-1	O	SVOC	Pyridine	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	110-86-1	O	SVOC	Pyridine	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	110-86-1	O	SVOC	Pyridine	mg/kg	0.13	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	110-86-1	O	SVOC	Pyridine	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	110-86-1	O	SVOC	Pyridine	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	110-86-1	O	SVOC	Pyridine	mg/kg	0.12	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	110-86-1	O	SVOC	Pyridine	mg/kg	0.11	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	110-86-1	O	SVOC	Pyridine	mg/kg	0.095	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	110-86-1	O	SVOC	Pyridine	mg/kg	0.089	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00046	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00046	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00046	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00044	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00043	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00042	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00038	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00033	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	630-20-6	O	VOC	1,1,1,2-Tetrachloroethane	mg/kg	0.00033	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00037	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00037	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00037	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00035	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00034	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00034	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00031	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00027	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	71-55-6	O	VOC	1,1,1-Trichloroethane	mg/kg	0.00026	U	N	--	260	1300	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00087	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00086	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00086	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00082	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.0008	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00079	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00072	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00063	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	79-34-5	O	VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.00061	U	N	--	0.127	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00074	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00073	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00073	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00069	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00068	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00067	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00061	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00053	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	76-13-1	O	VOC	1,1,2-Trichloro-1,2,2-trifluorc	mg/kg	0.00052	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00074	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00073	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00073	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.0007	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00068	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00067	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00061	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00053	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	79-00-5	O	VOC	1,1,2-Trichloroethane	mg/kg	0.00052	U	N	--	0.32	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00045	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00044	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00044	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00042	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00041	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.0004	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00037	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00032	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-34-3	O	VOC	1,1-Dichloroethane	mg/kg	0.00031	U	N	--	210	2100	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.00042	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.00042	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.00042	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.0004	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.00039	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.00038	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.00035	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.00031	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-35-4	O	VOC	1,1-Dichloroethene	mg/kg	0.0003	U	N	--	11	60	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00062	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00061	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00061	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00058	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00057	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00056	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00051	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00045	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	563-58-6	O	VOC	1,1-Dichloropropene	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.0006	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00059	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00059	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00056	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00055	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00054	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00049	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00043	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	87-61-6	O	VOC	1,2,3-Trichlorobenzene	mg/kg	0.00042	U	N	--	20	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00067	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00066	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00066	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00063	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00061	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00061	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00055	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00048	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	96-18-4	O	VOC	1,2,3-Trichloropropane	mg/kg	0.00047	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00065	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00065	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00065	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00062	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.0006	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00059	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00054	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00047	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	120-82-1	O	VOC	1,2,4-Trichlorobenzene	mg/kg	0.00046	U	N	--	0.27	2.7	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00096	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00095	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00094	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.0009	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00088	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00087	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00079	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00069	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-63-6	O	VOC	1,2,4-Trimethylbenzene	mg/kg	0.00067	U	N	--	0.09	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0053	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0053	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0052	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.005	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0049	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0048	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0038	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	96-12-8	O	VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0037	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.00027	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.00024	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	106-93-4	O	VOC	1,2-Dibromoethane	mg/kg	0.00023	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.0004	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00039	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00039	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00038	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00037	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00036	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00033	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00029	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-50-1	O	VOC	1,2-Dichlorobenzene	mg/kg	0.00028	U	N	--	0.09	9.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.00044	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.00043	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.00043	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.00041	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.0004	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.0004	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.00036	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.00032	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	107-06-2	O	VOC	1,2-Dichloroethane	mg/kg	0.00031	U	N	--	0.85	1.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.00044	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.00043	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.00043	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.00041	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.0004	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.0004	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.00036	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.00032	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	78-87-5	O	VOC	1,2-Dichloropropane	mg/kg	0.00031	U	N	--	0.28	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.00043	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.00042	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.00042	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.0004	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.00039	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.00039	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.00035	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.00031	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	108-67-8	O	VOC	1,3,5-Trimethylbenzene	mg/kg	0.0003	U	N	--	0.07	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.0004	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.0004	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.0004	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.00038	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.00037	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.00036	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.00033	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.00029	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	541-73-1	O	VOC	1,3-Dichlorobenzene	mg/kg	0.00028	U	N	--	0.08	7.4	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00047	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00047	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00046	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00039	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00034	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	142-28-9	O	VOC	1,3-Dichloropropane	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00049	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00048	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00048	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00046	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00045	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00044	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.0004	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00035	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	106-46-7	O	VOC	1,4-Dichlorobenzene	mg/kg	0.00034	U	N	--	0.89	3.5	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.00039	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.00036	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	594-20-7	O	VOC	2,2-Dichloropropane	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	78-93-3	O	VOC	2-Butanone	mg/kg	0.0072	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	78-93-3	O	VOC	2-Butanone	mg/kg	0.0071	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	78-93-3	O	VOC	2-Butanone	mg/kg	0.0071	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	78-93-3	O	VOC	2-Butanone	mg/kg	0.0068	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	78-93-3	O	VOC	2-Butanone	mg/kg	0.0066	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	78-93-3	O	VOC	2-Butanone	mg/kg	0.0065	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	78-93-3	O	VOC	2-Butanone	mg/kg	0.0059	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	78-93-3	O	VOC	2-Butanone	mg/kg	0.0052	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	78-93-3	O	VOC	2-Butanone	mg/kg	0.0051	U	N	--	350	920	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.00038	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.00037	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.00036	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.00029	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-49-8	O	VOC	2-Chlorotoluene	mg/kg	0.00028	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0049	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0048	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0048	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0046	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0045	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0044	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	591-78-6	O	VOC	2-Hexanone	mg/kg	0.004	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0035	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	591-78-6	O	VOC	2-Hexanone	mg/kg	0.0034	U	N	--	0.36	3.6	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00039	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00038	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00038	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00036	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00035	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00035	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00028	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	106-43-4	O	VOC	4-Chlorotoluene	mg/kg	0.00027	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0046	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0046	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0046	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0044	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0043	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0042	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0038	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0034	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	108-10-1	O	VOC	4-Methyl-2-Pentanone	mg/kg	0.0033	U	N	--	9.7	97	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	67-64-1	O	VOC	Acetone	mg/kg	0.016	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	67-64-1	O	VOC	Acetone	mg/kg	0.015	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	67-64-1	O	VOC	Acetone	mg/kg	0.015	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	67-64-1	O	VOC	Acetone	mg/kg	0.015	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	67-64-1	O	VOC	Acetone	mg/kg	0.014	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	67-64-1	O	VOC	Acetone	mg/kg	0.014	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	67-64-1	O	VOC	Acetone	mg/kg	0.013	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	67-64-1	O	VOC	Acetone	mg/kg	0.011	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	67-64-1	O	VOC	Acetone	mg/kg	0.011	U	N	--	1.2	6.3	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	71-43-2	O	VOC	Benzene	mg/kg	0.00041	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	71-43-2	O	VOC	Benzene	mg/kg	0.00041	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	71-43-2	O	VOC	Benzene	mg/kg	0.0004	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	71-43-2	O	VOC	Benzene	mg/kg	0.00039	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	71-43-2	O	VOC	Benzene	mg/kg	0.00038	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	71-43-2	O	VOC	Benzene	mg/kg	0.00037	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	71-43-2	O	VOC	Benzene	mg/kg	0.00034	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	71-43-2	O	VOC	Benzene	mg/kg	0.0003	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	71-43-2	O	VOC	Benzene	mg/kg	0.00029	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	108-86-1	O	VOC	Bromobenzene	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00027	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00024	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	108-86-1	O	VOC	Bromobenzene	mg/kg	0.00023	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.00071	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.0007	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.0007	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.00067	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.00065	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.00064	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.00058	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.00051	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	74-97-5	O	VOC	Bromochloromethane	mg/kg	0.0005	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00052	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00051	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00051	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00049	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00048	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00047	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00037	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-27-4	O	VOC	Bromodichloromethane	mg/kg	0.00036	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-25-2	O	VOC	Bromoform	mg/kg	0.0021	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-25-2	O	VOC	Bromoform	mg/kg	0.0021	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-25-2	O	VOC	Bromoform	mg/kg	0.0021	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-25-2	O	VOC	Bromoform	mg/kg	0.002	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-25-2	O	VOC	Bromoform	mg/kg	0.0019	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-25-2	O	VOC	Bromoform	mg/kg	0.0019	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-25-2	O	VOC	Bromoform	mg/kg	0.0017	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-25-2	O	VOC	Bromoform	mg/kg	0.0015	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-25-2	O	VOC	Bromoform	mg/kg	0.0015	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	74-83-9	O	VOC	Bromomethane	mg/kg	0.01	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	74-83-9	O	VOC	Bromomethane	mg/kg	0.01	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	74-83-9	O	VOC	Bromomethane	mg/kg	0.01	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	74-83-9	O	VOC	Bromomethane	mg/kg	0.0099	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	74-83-9	O	VOC	Bromomethane	mg/kg	0.0096	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	74-83-9	O	VOC	Bromomethane	mg/kg	0.0095	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	74-83-9	O	VOC	Bromomethane	mg/kg	0.0086	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	74-83-9	O	VOC	Bromomethane	mg/kg	0.0076	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	74-83-9	O	VOC	Bromomethane	mg/kg	0.0074	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00064	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00063	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00063	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.0006	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00059	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00058	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00053	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00046	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-15-0	O	VOC	Carbon Disulfide	mg/kg	0.00045	U	N	--	0.81	8.1	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00048	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00047	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00047	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00045	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00044	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00043	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00039	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00034	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	56-23-5	O	VOC	Carbon tetrachloride	mg/kg	0.00034	U	N	--	2	9.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.00043	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.00042	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.00042	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.0004	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.00039	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.00039	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.00035	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.00031	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	108-90-7	O	VOC	Chlorobenzene	mg/kg	0.0003	U	N	--	43	24	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00039	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00036	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	124-48-1	O	VOC	Chlorodibromomethane	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-00-3	O	VOC	Chloroethane	mg/kg	0.0012	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-00-3	O	VOC	Chloroethane	mg/kg	0.0012	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-00-3	O	VOC	Chloroethane	mg/kg	0.0012	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-00-3	O	VOC	Chloroethane	mg/kg	0.0011	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-00-3	O	VOC	Chloroethane	mg/kg	0.0011	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-00-3	O	VOC	Chloroethane	mg/kg	0.0011	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-00-3	O	VOC	Chloroethane	mg/kg	0.00098	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-00-3	O	VOC	Chloroethane	mg/kg	0.00086	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-00-3	O	VOC	Chloroethane	mg/kg	0.00083	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	67-66-3	O	VOC	Chloroform	mg/kg	0.00094	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	67-66-3	O	VOC	Chloroform	mg/kg	0.00093	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	67-66-3	O	VOC	Chloroform	mg/kg	0.00093	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	67-66-3	O	VOC	Chloroform	mg/kg	0.00088	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	67-66-3	O	VOC	Chloroform	mg/kg	0.00086	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	67-66-3	O	VOC	Chloroform	mg/kg	0.00085	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	67-66-3	O	VOC	Chloroform	mg/kg	0.00077	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	67-66-3	O	VOC	Chloroform	mg/kg	0.00068	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	67-66-3	O	VOC	Chloroform	mg/kg	0.00066	U	N	--	8	21	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	74-87-3	O	VOC	Chloromethane	mg/kg	0.0025	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	74-87-3	O	VOC	Chloromethane	mg/kg	0.0024	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	74-87-3	O	VOC	Chloromethane	mg/kg	0.0024	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	74-87-3	O	VOC	Chloromethane	mg/kg	0.0023	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	74-87-3	O	VOC	Chloromethane	mg/kg	0.0023	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	74-87-3	O	VOC	Chloromethane	mg/kg	0.0022	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	74-87-3	O	VOC	Chloromethane	mg/kg	0.002	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	74-87-3	O	VOC	Chloromethane	mg/kg	0.0018	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	74-87-3	O	VOC	Chloromethane	mg/kg	0.0017	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00054	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00053	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00053	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00051	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00049	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00049	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00044	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00039	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	156-59-2	O	VOC	cis-1,2-Dichloroethene	mg/kg	0.00038	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.00056	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.00055	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.00055	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.00052	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.00051	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.0005	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.00046	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	10061-01-5	O	VOC	cis-1,3-Dichloropropene	mg/kg	0.00039	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00049	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00048	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00048	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00046	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00045	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	74-95-3	O	VOC	Dibromomethane	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00035	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	74-95-3	O	VOC	Dibromomethane	mg/kg	0.00034	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00072	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00071	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00071	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00068	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00067	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00065	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.0006	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00052	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-71-8	O	VOC	Dichlorodifluoromethane	mg/kg	0.00051	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-09-2	O	VOC	Dichloromethane	mg/kg	0.005	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0049	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0049	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0047	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0046	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0045	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0041	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0036	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-09-2	O	VOC	Dichloromethane	mg/kg	0.0035	U	N	--	2.6	22	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.00033	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.00033	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.00032	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.00031	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.0003	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.0003	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.00027	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.00024	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	100-41-4	O	VOC	Ethylbenzene	mg/kg	0.00023	U	N	--	0.27	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.00036	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	98-82-8	O	VOC	Isopropylbenzene	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.00028	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.00028	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.00027	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.00025	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.00022	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	1634-04-4	O	VOC	Methyl tert-butyl ether (MTB	mg/kg	0.00021	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	91-20-3	O	VOC	Naphthalene	mg/kg	0.0063	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	91-20-3	O	VOC	Naphthalene	mg/kg	0.0062	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	91-20-3	O	VOC	Naphthalene	mg/kg	0.0062	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	91-20-3	O	VOC	Naphthalene	mg/kg	0.0059	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	91-20-3	O	VOC	Naphthalene	mg/kg	0.0058	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	91-20-3	O	VOC	Naphthalene	mg/kg	0.0057	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	91-20-3	O	VOC	Naphthalene	mg/kg	0.0052	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	91-20-3	O	VOC	Naphthalene	mg/kg	0.0045	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	91-20-3	O	VOC	Naphthalene	mg/kg	0.0044	U	N	--	1	27	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00034	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00028	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00024	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	104-51-8	O	VOC	n-Butylbenzene	mg/kg	0.00024	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00039	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00038	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00038	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00034	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.0003	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	103-65-1	O	VOC	n-Propylbenzene	mg/kg	0.00029	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00045	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00042	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00037	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	99-87-6	O	VOC	p-Isopropyltoluene	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.00043	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.00036	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	135-98-8	O	VOC	sec-Butylbenzene	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	100-42-5	O	VOC	Styrene	mg/kg	0.00051	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	100-42-5	O	VOC	Styrene	mg/kg	0.0005	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	100-42-5	O	VOC	Styrene	mg/kg	0.0005	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	100-42-5	O	VOC	Styrene	mg/kg	0.00048	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	100-42-5	O	VOC	Styrene	mg/kg	0.00046	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	100-42-5	O	VOC	Styrene	mg/kg	0.00046	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a] No Effect ESL	Screening Levels[a] Low Effect ESL	Site-Specific EcoPRGs[b] Bird EcoPRG	Site-Specific EcoPRGs[b] Mammal EcoPRG	Area Use Factors[c] Bird	Area Use Factors[c] Mammal	Screening HQs Bkg HQ	Screening HQs No Effect HQ	Screening HQs Low Effect HQ	Site-Specific EcoPRG HQs Bird HQ	Site-Specific EcoPRG HQs Mammal HQ	Area Use Adjusted EcoPRG Bird HQ	Area Use Adjusted EcoPRG Mammal HQ	Summary Bkg HQ	Summary No Effect HQ	Summary Low Effect HQ	Summary Bird EcoPRG HQ	Summary Mammal EcoPRG HQ	Summary Bird AUF EcoPRG HQ	Summary Mammal AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	100-42-5	O	VOC	Styrene	mg/kg	0.00042	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	100-42-5	O	VOC	Styrene	mg/kg	0.00037	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	100-42-5	O	VOC	Styrene	mg/kg	0.00036	U	N	--	1.2	12	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.00038	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.00037	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.00037	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.00033	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.00029	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	98-06-6	O	VOC	tert-Butylbenzene	mg/kg	0.00029	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00036	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00035	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00035	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00033	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00033	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00032	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00029	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00026	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	127-18-4	O	VOC	Tetrachloroethene	mg/kg	0.00025	U	N	--	0.18	0.94	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	108-88-3	O	VOC	Toluene	mg/kg	0.00056	J	Y	--	23	230	--	--	0.0129	0.02146	--	2E-05	2E-06	--	--	--	--	--	<1	<1	step 1	step 1	step 1	step 1
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	108-88-3	O	VOC	Toluene	mg/kg	0.00043	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	108-88-3	O	VOC	Toluene	mg/kg	0.00042	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	108-88-3	O	VOC	Toluene	mg/kg	0.00042	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	108-88-3	O	VOC	Toluene	mg/kg	0.0004	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	108-88-3	O	VOC	Toluene	mg/kg	0.00039	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	108-88-3	O	VOC	Toluene	mg/kg	0.00039	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	108-88-3	O	VOC	Toluene	mg/kg	0.00035	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	108-88-3	O	VOC	Toluene	mg/kg	0.00031	U	N	--	23	230	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00048	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00047	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00047	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00045	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00044	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00043	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.0004	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00035	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	156-60-5	O	VOC	trans-1,2-Dichloroethene	mg/kg	0.00034	U	N	--	24	240	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00045	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00042	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00041	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.0004	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00037	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00032	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	10061-02-6	O	VOC	trans-1,3-Dichloropropene	mg/kg	0.00031	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00062	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00061	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00061	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00058	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00057	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00056	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00051	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00045	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	79-01-6	O	VOC	Trichloroethylene	mg/kg	0.00043	U	N	--	42	420	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00043	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00043	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00043	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00041	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.0004	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00039	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00036	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00031	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-69-4	O	VOC	Trichlorofluoromethane	mg/kg	0.00031	U	N	--	52	350	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0062	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0062	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0062	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table F-1. J.C. Boyle Retained Easement Fire Ring Sample Specific Risk Estimates - Soil Sampled on 6/22/2023

Site Name	Location ID	Matrix Code	Start Depth	End Depth	CAS-RN	Type	Class	Analyte	Units	Result	Qualifier	Detect	BTV	Screening Levels[a]		Site-Specific EcoPRGs[b]		Area Use Factors[c]		Screening HQs			Site-Specific EcoPRG HQs		Area Use Adjusted EcoPRG		Summary						
														No Effect ESL	Low Effect ESL	Bird EcoPRG	Mammal EcoPRG	Bird	Mammal	Bkg HQ	No Effect HQ	Low Effect HQ	Bird HQ	Mammal HQ	Bird HQ	Mammal I HQ	Bkg HQ	No Effect HQ	Low Effect HQ	Bird EcoPRG HQ	Mammal I EcoPRG HQ	Bird AUF EcoPRG HQ	Mammal I AUF EcoPRG HQ
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0059	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0057	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0056	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0051	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0045	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	108-05-4	O	VOC	Vinyl Acetate	mg/kg	0.0044	U	N	--	--	--	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.0006	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.0006	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.0006	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.00057	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.00055	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.00055	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.0005	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.00044	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	75-01-4	O	VOC	Vinyl Chloride	mg/kg	0.00042	U	N	--	0.12	1.2	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	95-47-6	O	VOC	Xylene, o-	mg/kg	0.00041	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	95-47-6	O	VOC	Xylene, o-	mg/kg	0.0004	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	95-47-6	O	VOC	Xylene, o-	mg/kg	0.0004	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	95-47-6	O	VOC	Xylene, o-	mg/kg	0.00038	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	95-47-6	O	VOC	Xylene, o-	mg/kg	0.00037	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	95-47-6	O	VOC	Xylene, o-	mg/kg	0.00037	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	95-47-6	O	VOC	Xylene, o-	mg/kg	0.00034	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	95-47-6	O	VOC	Xylene, o-	mg/kg	0.00029	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	95-47-6	O	VOC	Xylene, o-	mg/kg	0.00029	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	3.5	4	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00076	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	1.5	2	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00075	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	1.5	2	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00074	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	5.5	6	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00071	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	3	3.5	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00069	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	1.5	2	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00068	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-02	SO	0	0.5	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00062	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-03	SO	0	0.5	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00055	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OR-J.C. Boyle Retained Easement Fire Ring	JBRA-01	SO	0	0.5	179601-23-1	O	VOC	Xylenes, m- & p-	mg/kg	0.00053	U	N	--	1.4	1.8	--	--	0.0129	0.02146	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
[a] Screening Levels - No Effect ESLs are based on no observed adverse effect levels (NOAELs) and are the most conservative among plants, invertebrates, birds, and mammals. Low Effect ESLs are based on lowest observed adverse effect levels (LOAELs) for birds and mammals.
[b] Site-specific ecological preliminary remedial goals (EcoPRGs) are risk based concentrations calculated for receptors that would potentially be found in the area around the site. The bird and mammal EcoPRGs selected for use in the risk estimates are the most conservative of the risk-based values calculated for birds and mammals from the major feeding guilds (herbivores, invertivores, and carnivores) using LOAEL toxicity values and an AUF=1 (100% site use). Supporting information and calculation of EcoPRGs is presented in Oregon SIR Appendix F, Table F-3 through Table F-7.
[c] Area use factors for the hermit thrush and vagrant shrew were selected for use in the risk estimates as these two receptors had the most conservative risk-based concentrations. The AUF is calculated from the receptors home range vs the size of the REC. Supporting information and calculation of AUFs is presented in Oregon SIR Appendix F, Table F-7.
-- = not applicable
Bkg = background
BTV = background threshold values
CAS-RN = Chemical Abstract Service Registry Number
DXN = dioxin
EcoPRG = ecological preliminary remedial goal
ESL = ecological screening level
HQ = hazard quotient
I = inorganic
J = Estimated value less than reporting limit but greater than method detection limit or value is estimated due to a sampling or laboratory quality control issue
mg/kg = milligram(s) per kilogram(s)
ND = Nondetection
O = organic
PAH = polynuclear aromatic hydrocarbon
SO = soil
SVOC = semivolatile organic compound
TEQ-BO = toxic equivalent - birds
'TEQ-MO = toxic equivalent - mammals
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit
VOC = volatile organic compound

Appendix G
Consolidated Comment Matrix

COMMENT MATRIX for the Stakeholder Review Drafts:
Lower Klamath Project California Site Investigation Report Supplement No. 1 (September 2023)
Lower Klamath Project Oregon Site Investigation Report Supplement No. 1 (December 2023)
FERC No. P-14803
March 2024

No.	Reviewer Initials*	Item Under Review	Section and Page No. / DWG No.	Comment	Response to Comment
California Department of Fish and Wildlife - Office of Spill Prevention and Response/California Department of Water Resources (Comments on the California Site Investigation Report Supplement No. 1)					
CA-1	KT	California SIR Supplement No. 1	Page 1-2, Section 1.3 Investigative Standard and Future Site Uses and Table 1-1	The California SIR1 indicates: "The exposure pathways were used to determine the screening levels and to evaluate the analytical results as described in Section 3 and implemented in Sections 5 and 6 of this California SIR1." CDFW-OSPR suggests that [the] PacifiCorp/Jacobs continue to monitor contaminant concentrations in surface water if PacifiCorp/Jacobs detects concentrations over the project action limit in ground water.	There were no locations where groundwater was encountered at the sites evaluated as part of the investigation in the California SIR Supplement No. 1. Because of this, no additional monitoring activities are necessary. No changes necessary.
CA-2	KT	California SIR Supplement No. 1	Page 2-2, Section 2.4 Sampling Collection and Appendix D Analytical Laboratory Results	Please clarify whether the data were analyzed using unfiltered or filtered samples. We recommended that PacifiCorp/Jacobs perform a risk assessment using unfiltered data (Huang 2022) [*sic*]. Filtering is not considered appropriate for water samples to be analyzed for PCBs because contaminants that sorb to particulates are removed when filtered.	No water samples were collected from the Iron Gate Substation or the Copco No. 1 Switchyard. No changes necessary.
CA-3	KT	California SIR Supplement No. 1	Appendix G, Page 16, Photograph 16; Page 2-4, Photograph 16	The photograph labeled as "stressed vegetation" in retained easement areas was taken on April 13, 2023. It looks like a viable ecological habitat. Jacobs Engineering Group Inc. should have another site visit to determine what kind of habitat it is. Ecological risk assessment should be performed. Ecological risk assessment should determine if the stress results from drought or environmental contaminants.	Photograph 16 shows a small meadow, potentially even a seasonal wetland or swale, surrounded by oak woodland. Based on environmental experience of the team leading this investigation, the location of the vegetation in a low-lying area when combined with the lack of soil staining, odors, or dumping of debris in the area, indicates that the stressed vegetation is not due to contamination. No further investigation is warranted at this time. No changes necessary.

* KT = Kevin Takei/California Department of Fish and Wildlife

COMMENT MATRIX for the Stakeholder Review Drafts:
Lower Klamath Project California Site Investigation Report Supplement No. 1 (September 2023)
Lower Klamath Project Oregon Site Investigation Report Supplement No. 1 (December 2023)
FERC No. P-14803
March 2024

No.	Reviewer Initials*	Item Under Review	Section and Page No. / DWG No.	Comment	Response to Comment
Klamath River Renewal Corporation (Comments on the California and Oregon Site Investigation Report Supplements No. 1)					
KRRC-1	LL	General comment on both reports		KRRC adopts any comments and caveats expressed by Oregon or California.	Acknowledged. No changes necessary.
KRRC-2	LL	General comment on both reports		KRRC is not at this time offering an explicit or implicit approval of any of the closure recommendations referenced in the supplement.	Acknowledged. No changes necessary.
KRRC-3		Oregon SIR Supplement No. 1		The Supplement notes in Sections 3.2.1 and 3.2.12 of "Appendix A Retained Easement Environmental Review" that the eastern retained easement areas were not surveyed as they were underwater, but does not seem to note plans to survey those areas when no longer inundated. Please add an acknowledgement that the balance of the easement area will be addressed when accessible.	Accessible areas of the retained easements were surveyed during the site reconnaissance. These retained easement areas are representative of the operating areas available to PacifiCorp over the operational life of the hydroelectric facilities. No additional survey is planned for areas that were below reservoirs. Should undiscovered impacted soil or groundwater be identified through the removal or restoration work, it will be handled in accordance with Section 2.5, Undiscovered Impacted Soil and Groundwater (RECs 5, 9, and 17) of the *Oregon Site Investigation Work Plan Supplement No. 1* (Jacobs 2023), which has established a process whereby impacted soil or groundwater can be addressed if encountered. No changes necessary.
KRRC-4		Oregon SIR Supplement No. 1		Section 5 of the Supplement states that since no other PECs were identified in the Environmental Review (Appendix A), the JCB retained easement areas are recommended for closure. Please clarify that this does not include the areas not yet surveyed.	No additional survey of the retained easements areas is planned, as noted in the response to KRRC-3.
KRRC-5		California SIR Supplement No. 1		Same comments as above regarding California easement areas inaccessible at the time of survey.	Please see response to KRRC-3.
KRRC-6		California SIR Supplement No. 1		We suggest that you circulate the updated 2.3 when it's ready rather than waiting to circulate it with the next draft of the supplement. Additional clarification emailed by Lloyd Lowy (KRRC) to Demian Ebert (PacifiCorp) on February 5, 2024: "It's a reference to the bracketed note at the end of Section 2.3 of the draft saying that the section will be updated. I was merely suggesting that, in the interest of time, you circulate the update when it's ready rather than holding it until when you circulate the next version of the entire supplement."	The bracketed comment at the end of Section 2.3 that states *[Note to reviewers that this paragraph will be revised once investigation-derived w ate disposal is done.]*, has been removed. The text in Section 2.3 has been modified as follows: "Wastewater samples were collected from each site for waste profiling purposes. Because the analytical results for the wastewater fit the existing wastewater profile generated when implementing the California SIWP (Jacobs 2021), the wastewater was disposed of offsite with other contaminated soil."

* LL = Lloyd Lowy

COMMENT MATRIX for the Stakeholder Review Drafts:
Lower Klamath Project California Site Investigation Report Supplement No. 1 (September 2023)
Lower Klamath Project Oregon Site Investigation Report Supplement No. 1 (December 2023)
FERC No. P-14803
March 2024

No.	Reviewer Initials*	Item Under Review	Section and Page No. / DWG No.	Comment	Response to Comment
Oregon Department of Justice (Comment on the Oregon Site Investigation Report Supplement No. 1)					
OR-1	CM	General Comment		Oregon endorses KRRC's concerns about the Oregon work.	Acknowledged. No changes necessary.
OR-2	CM	General Comment		Thank you for providing this for our comment (and as you know nothing in this comment process is approval in terms of sale obligations of PacifiCorp). Two errors, one of which is likely a repeated typo, but the other is a recurring and real issue – and a failure in your response to our prior comments on the subject.	Acknowledged. Both errors have been corrected as described in the response to OR-2a.
OR-2a		Oregon SIR Supplement No. 1	Pages 1-1 and 1-2	You state that the Oregon SIWP Supplement was approved by the KRRC (Lowy, pers. comm. 2022) and the State of Oregon (Meyers, pers. comm. 2022). – There is no Meyers in the Oregon loop.	PacifiCorp agrees with this comment and changed "Meyers" to "Matthews" in two places.
OR-2b		Oregon SIR Supplement No. 1	Table 1-1 Site Future Uses and Exposure Pathways (page 1-3); Section 4.2 Fire Ring Analytical Results (page 4-2)	Table 1-1 REC 16 shows the future use as industrial and the exposure pathway as Industrial/ecological/leaching to groundwater. However, easements without access controls will be used primarily for recreation. Oregon commented on this in the review of SIWP, and PacifiCorp response was they would make the change. That change was captured in Table 1-1 in the Oregon Site Investigation Work Plan Supplement No. 1 January 2023 showing the future use as recreation and the exposure pathway as Residential/leaching to groundwater. It is not clear in the discussion of the results in Section 4 [see excerpt below] if this inconsistency between the SIWP and this report affected the choice of screening level or the conclusions. **4.2 Fire Ring Analytical Results** "The samples were analyzed for the same set of analytes as were analyzed at the fire ring in the J.C. Boyle Dispersed Recreation Area – 2 (Jacobs 2023e): title 22 metals, mercury, volatile organic compounds, semivolatile organic compounds, and dioxins and furans. The analytical results were compared to the site-specific screening levels established in the Oregon SIWP. Cobalt exceeded human health and ecological screening levels (ESLs) at all three soil borings. ESLs were exceeded for copper and dioxins and furans at all three soil borings, and for zinc at JBRA-01 and for selenium at JBRA-03. Naphthalene exceeded the leaching to groundwater screening level at the surface at JBRA-01 (Table 4-2, Figure 4-1)." Please provide sufficient documentation to confirm that the appropriate levels were actually used, or correct the report after doing so – and provide Jacobs certification for this correction or update.	REC 16 Retained Easement Areas in Table 1-1 has been corrected to a future use of "Passive recreational/natural habitat" and an exposure pathway of "Residential/ecological/leaching to groundwater." The corresponding edit to Table 1-1 is made in the California SIR Supplement No. 1. This edit to Table 1-1 does not affect the future use and exposure pathway analysis because the passive recreation/natural habitat and residential human health, leaching to groundwater, and ecological exposure pathways were used in the *Draft Oregon Site Investigation Report Supplement No. 1* evaluation and risk assessment of the Fire Ring. The text in Section 4.2 has been modified to explicitly state the exposure pathways used, as follows: "The analytical results were compared to the site-specific screening levels established in the Oregon SIWP <u>for residential human health, leaching to groundwater, and ecological exposure pathways</u>." Because the correct future uses and exposure pathways were used in the analysis, the results and conclusions in Section 4 are all correct and no further changes are necessary.

* CM = Chris Matthews

REFERENCES

Huang, C. 2021. Memorandum to: Anthony Meyers, Project Manager, Department of Water Resources. Re: Lower Klamath Hydroelectric Project, Draft Site Investigation Work Plan Supplement No.1. September 6, 2021. Sacramento, CA.

Jacobs Engineering Group Inc. (Jacobs). 2023. *Oregon Site Investigation Work Plan Supplement No. 1*. Prepared for PacifiCorp. January.

State Water Resources Control Board (SWRCB). 2018. *Environmental Impact Report for the Lower Klamath Project License Surrender Volume I*. December. https://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/lower_klamath_ferc14803_deir.html.