Phase II Environmental Site Assessment Report

Former Markwardt Brothers Garage
North 1st Avenue and West Chocktoot Street
Chiloquin, Klamath County, Oregon 97624

Prepared for: City of Chiloquin, Oregon
Oregon DEQ ECSI No. 6462

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1 Introduction

1.1 Purpose

Cardno was retained by the City of Chiloquin (Client) to conduct this Phase II Environmental Site Assessment (ESA) of the Former Markwardt Brothers Garage property, located northeast of the North 1st Avenue and West Chocktoot Street intersection in Chiloquin, Klamath County, Oregon (**Figure 1**), herein referred to as the "Subject Property" or "Site." In addition, the Subject Property was entered into the Voluntary Letter Agreement (ECSI No. 6462) with the Oregon Department of Environmental Quality on June 4, 2021. This investigation was conducted in general conformance with the scope and limitations outlined by *ASTM Standard E1903-19*; however, the specific scope of work was negotiated between the Client and Cardno to meet the objectives of the Client.

The primary objective of the Phase II ESA was to further evaluate the identified recognized environmental conditions (RECs) (as defined in *ASTM Standard E1527-13*) and to provide sufficient information regarding the nature and extent of contamination to assist in making informed business decisions about the property; and, where applicable, providing the level of knowledge necessary to satisfy the Landowner Liability Protection provisions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). RECs are defined by *ASTM Standard E1527-13* as: "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property."

Oregon Department of Environmental Quality (ODEQ) issued a Voluntary Letter Agreement letter on June 3, 2021, accepting the Site into the ODEQ Voluntary Cleanup Plan (ECSI No. 6462). This assessment was completed in accordance with the Phase II Environmental Site Assessment Work Plan (Cardno, 2021c).

1.2 Site Location / Description

The Subject Property is comprised of two tax parcels (Parcel ID 3407-034DC-00400 & Parcel ID 3407-034DC-00500), currently owned by Klamath County, located at the center of downtown Chiloquin, Oregon, as shown on **Figure 2**. The Subject Property is bound by a commercial facility to the north, undeveloped/vacant land to the northeast, multi-commercial facility to the east, Sky Lakes Wilderness Adventures and Klamath Tribal Courts & Child Support Enforcement Office to the southeast, the Hirvi building to the south, a former gas station to the west, and the former Union Oil Bulk Plant property to the southwest. According to the Klamath County Tax Assessor's website, the Site encompasses two parcels totaling approximately 0.55-acre. The Subject Property is developed with a single-story commercial building of concrete block and brick facade construction. A second building, historically occupied by the Chiloquin Mercantile, partially collapsed and was demolished with the exception of a vault. The associated rubble remains on-Site. The building is currently vacant and in the care of Klamath County.

1.3 Site History

According to the current property owner, the on-Site commercial structure was constructed in the late 1920s or early 1930s. The building previously supported a car dealership, grocery, bicycle repair shop, music school, and auto-body shop. The building formerly located on the north parcel was constructed during the same time-period and operated as the Chiloquin Mercantile. It was vacated at an unknown date, and collapsed in 2019. The collapsed building remains on-Site, described throughout this report as the debris pile.

1.4 Current Adjacent Land Uses

The Site is located in a commercial area of Chiloquin. Specific adjoining property uses are detailed in the following table:

Direction from Property	Occupant(s) Name	Current Use	Environmental Concerns
South	Hirvi Building	Commercial	None
West	Former Texaco Gas Station	Commercial	**Historical REC #1**
Northwest	Vacant	Undeveloped/Vacant	None
North	Vacant	Commercial	None
Northeast	Undeveloped/Vacant	Undeveloped/Vacant	None
East	Vacant/Multi-Commercial facility	Vacant Commercial	None
Southeast	Sky Lakes Wilderness Adventures	Commercial	None
Southeast	Klamath Tribal Courts & Child Support Enforcement Office	Municipal	None

1.5 Previous Environmental Assessments

Cardno completed a Phase I ESA and Asbestos and Lead-Based Paint Assessment on the Subject Property dated May 17, 2021 (Cardno, 2021a, 2021b). Through the review of historical records, interviews, and site reconnaissance, this assessment identified several RECs in connection with the Subject Property, including the following:

On-Site REC

1. According to the 1931 Sanborn Fire Insurance Map (FIM), the building was used as an auto repair garage (east portion), and “Gas & Oil” facility (southwest area). During site reconnaissance, Cardno personnel identified a potential underground storage tank (UST) vent pipe attached to the west interior wall of the on-Site building in an area consistent with the FIM gasoline station location. Therefore, there is potential for historical bulk storage and dispensing of petroleum products on the Subject Property, which may have impacted the soil, groundwater, and/or vapor at the Subject Property.

2. The remains of three in-ground hydraulic lifts and one oil-changing pit were observed in the building. According to the 1931 Sanborn FIM, the on-Site building is labeled as being an auto repair/garage facility. Additionally, based on the age of the building, this time-frame predates the regulation of the storage/disposal of hazardous substances such as used oil and other non-regulated automobile chemicals. Based on the age and duration of use, the in-ground lifts and unknown chemical management and disposal practices associated with historic operations, soil, groundwater, and/or vapor may have been impacted by historic Site operations.

3. During site reconnaissance, Cardno identified a second potential vent pipe in the interior of the building along the eastern wall. This feature is an indication of a second petroleum product UST and/or heating oil tank to exist on the Subject Property. Based on the age and duration of the former use of the building, there is potential for a UST/heating oil tank on the property that may have impacted the soil, groundwater, and/or vapor at the Subject Property.

Off-Site RECs

4. According to the 1931 Sanborn FIM, a Printing facility was located approximately 80 feet to the east. The length of operation for this facility is unknown. There is potential for a release from this facility.

According to the 1931 Sanborn FIM, a Cleaning facility was located approximately 120 feet to the southeast. The length of operation for this facility is unknown. There is a potential for a historic release from this facility.

Off-Site Historical RECs (HREC)

1. According to ODEQ records, the former Chiloquin Texaco, located west and approximately 45 feet away, indicate that four USTs were installed pre-1989 which predates UST registration. These tanks were removed from the property in July 1994, and three new registered gasoline USTs were installed in the UST tank excavation in August 1994. The new tanks were subsequently removed in 2017. With the exception of benzene and ethylbenzene in two soil samples in the 2017 UST excavation, petroleum hydrocarbon concentrations in soil and groundwater did not exceed applicable ODEQ Risk Based Concentrations (RBCs). On July 22, 2019, ODEQ granted a No Further Action (NFA) determination letter for the Chiloquin Texaco site. Based on the issuance of an NFA, and given the assumed ground water flow direction away from the subject Site, this facility is considered a historical REC. See Section 5.1 for further details.

Based upon the RECs identified above, Cardno recommended soil and groundwater analysis be conducted throughout the Subject Property to determine the presence and/or extent of contamination. An excerpt of the Phase I ESA is included in **Appendix A**.

Asbestos-Containing Materials

An Asbestos containing materials (ACMs) survey was conducted during the Phase I ESA, and the following ACMs were identified throughout the interior of the building including:

- Interior white skim coat on plaster surfacing, totaling approximately 3,600 square feet (SF), located within the western most portions of the on-Site building.
- Interior white texture and joint compound on drywall, totaling approximately 1,000 SF, located within the western most portions of the on-Site building.
- Interior white caulk, totaling approximately 50 linear feet (LF), located on interior west wall windows.

Overall, given the state of the buildings, most of these materials were in good to fair condition. Therefore, the identified ACM has a low probability of disturbance during ordinary use. Prior to any renovation or demolition that may cause the ACM to become friable, the material should be removed or abated by a qualified asbestos abatement contractor.

During the inspection, suspect building materials were observed in the exterior building debris from the former attached north building (former Chiloquin Mercantile); however, this material was not sampled and was identified in the report as presumed asbestos containing materials (PACM).

Lead-Based Paint

During the Phase I ESA inspection Cardno conducted a Lead-based paint (LBP) survey. Samples collected during the inspection identified LBP on various painted surfaces throughout the interior and exterior of the building in various tenant spaces including:

- Red paint on exterior concrete masonry unit (CMU), totaling approximately 3,600 SF, located on the exterior east, south, and west walls.
- Tan/gray paint on interior ceiling, totaling approximately 1,200 SF, located on wood board ceiling on the southwest corner of the building.

Most of the identified painted surfaces were in poor condition, with peeling and deterioration noted. As the building is not considered to be a child-occupied facility, the identified LBP can be left intact unless disturbed during renovation or demolition.

The Asbestos and Lead-based Paint Survey report detailing the inspection and sampling results was issued on May 17, 2021, and provided as an attachment in **Appendix A**.

1.6 Limitations / Exceptions of Assessment

The conclusions and recommendations contained within this report are based on the data developed during this Phase II ESA investigation. This report was prepared for the Client and their assignee(s), and is intended solely for their use. This report is not intended for third-party use without the expressed written consent of the Client and Cardno. This assessment has been prepared in general accordance with accepted environmental methodologies referred to in *ASTM Standard 1903-19*, including limitations inherent in these methodologies.

No other warranty is expressed or implied.

1.7 Special Terms and Conditions (User Reliance)

No ESA can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for chemical analysis may or may not be representative of a larger population. Professional judgment and interpretation are inherent in the process and uncertainty is inevitable. Additional assessment may be able to reduce the uncertainty. Even when Phase II ESA work is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but are not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects, and the limitations of assessment technologies.

Phase II ESAs do not generally require an exhaustive assessment of environmental conditions on a property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. If hazardous substance or petroleum releases are confirmed on a parcel of property, the extent of further assessment is related to the degree of uncertainty that is acceptable to the user with respect to the real estate transaction. Measurements and sampling data only represent the site conditions at the time of data collection. Therefore, the usability of data collected as part of this Phase II ESA may have a finite lifetime depending on the application and use being made of the data. An environmental professional should evaluate whether the generated data are appropriate for any subsequent use beyond the original purpose for which it was collected.

This report is for the use and benefit of, and may be relied upon by the entity(s) identified in Section 1.1 of this report as the Client, as well as any of its affiliates and their respective successors and assigns, in connection with a commercial real estate transaction involving the property, and in accordance with the terms and conditions in place between Cardno and the Client for this project. Any third party agrees by accepting this report that any use or reliance on this report shall be limited by the exceptions and limitations in this report, and with the acknowledgment that actual site conditions may change with time, and that hidden conditions may exist at the property that were not discovered within the authorized scope of the assessment. Any use by or distribution of this report to third parties, without the express written consent of Cardno is at the sole risk and expense of such third party.

Cardno makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the

assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied.

2 Beneficial Land and Water Use

2.1 Locality of the Facility

As defined by ODEQ, the Locality of the Facility is “any point where a human or an ecological receptor contacts or is reasonably likely to come into contact with facility related hazardous substances.” (ODEQ, 1998a) This definition takes into account the likelihood of contamination migrating over time onto adjacent or nearby properties.

The chemical data obtained from soil and groundwater samples collected from the Site are used to approximate the Locality of the Facility, which is estimated to include the subsurface soil, groundwater, and soil vapor at the Site as well as the groundwater on adjoining properties directly downgradient of the Site.

2.2 Land Use Determination

The land use determination was performed in accordance with the ODEQ Guidance for the Consideration of Land Use in Environmental Remedial Actions (ODEQ, 1998a). The current and possible future land uses and water uses at the Site determine the types of receptors (human and ecological) that could potentially come into contact with elevated concentrations of impacted environmental media (soil, groundwater, soil vapor).

The Site is zoned for commercial use (C) by Klamath County. All adjoining properties are similarly zoned as commercial by Klamath County.

Potential future occupants of the Site and Locality of the Facility may be commercial or residential depending on developer preference and appropriate land use categories. Potential current and future receptors in the Locality of the Facility include occupational and residential, as well as excavation and construction workers during potential remedial actions followed by land development and infrastructure construction. However, a residential occupancy of the Site is unlikely as the commercial zoning does not allow for residential occupancy under current zoning ordinances.

2.3 Groundwater Use

The beneficial water use determination was performed in accordance with ODEQ Guidance for Conducting Beneficial Water Use Determinations at Environmental Cleanup Sites (ODEQ, 1998b). A search of the Oregon Water Resources Department (OWRD) database and a driving reconnaissance of the area surrounding the Site did not identify any active drinking water supply wells on the Site or in the vicinity of the Site.

2.4 Surface Water

The nearest surface water body in proximity to the Site is the Williamson River, located approximately 0.15-mile to the west. A review of the US Fish and Wildlife Service’s National Wetland Inventory and Site reconnaissance did not discover the presence of on-Site surface waters or wetlands.

2.5 Beneficial Water Use Determination

The municipal water system supplies the Site and surrounding area with drinking water; further, there are no wetlands or surface water bodies in the Locality of the Facility. Based on these findings, beneficial uses of groundwater within the presumed Locality of the Facility and unconfined aquifer are unlikely.

3 Phase II ESA Activities

3.1 Sampling Objectives

3.1.1 Conceptual Site Model and Sampling Plan

The conceptual site model (CSM) takes into consideration the potential distribution(s) of contaminants with respect to the property and anticipated fate and transport characteristics of contaminants in the setting being assessed. The sampling plan was designed to provide for the collection of environmental media samples at locations and depths where impacts are most likely to occur.

The sampling plan developed for this project was based upon information provided in Cardno's May 2021 Phase I ESA. Specifically, soil and groundwater borings were located to assess for potential adverse impacts to the Site from the former underground bulk storage and dispensing of petroleum products and hazardous substance impacts from former on-Site automotive repair and in-ground hydraulic lifts, as well as impacts from off-Site dry-cleaning and printing facilities. Sample analysis performed under the CSM included: Volatile Organic Compounds (VOCs) by EPA Method 8260D, Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270E, Resource Conservation Recovery Act (RCRA) 8 metals by EPA Methods 6010D and 7470A/7471B, Polychlorinated Biphenyls (PCBs) by EPA Method 8082A, Total Petroleum Hydrocarbons (TPH) as Gasoline Range Organics (GRO) by Method NWTPH-Gx, and Diesel Range Organics (DRO) and Residual Range Organics (RRO) by Method NWTPH-Dx. The locations of borings and temporary monitoring wells installed to address identified RECs are noted in **Figures 3 and 4**.

3.1.2 Chemical Testing Plan/QAQC

The chemical testing plan was designed to detect the contaminants suspected to be present in the samples collected. This testing plan included tests which provide quality assurance (QA) and techniques that provide quality control (QC) over the chemical analysis. A completed chain of custody record accompanied each sample shipment to the analytical laboratory. Chain of custody records provide written documentation regarding sample collection and handling, identify the persons involved in the chain of sample possession, and a written record of requested analytical parameters.

3.1.3 Deviations from Phase II ESA Work Plan

Unless otherwise stated in this section, the work was performed without deviation from the protocols and procedures outlined in the Phase II ESA Work Plan (Cardno, 2021c).

The following deviations were encountered during this work:

- Due to access limitations, proposed borings B-1, as listed in the Phase II ESA Work Plan, could not be advanced adjacent to potential on-Site underground storage tank (UST) due to ceiling clearance and was relocated to the exterior. Proposed borings B-2 and B-9 were relocated to the interior of the building in order to avoid subsurface utilities.
- GPR investigation of the second UST, potentially located along the east wall was not completed.
- Well locations and elevations were not surveyed as planned using a Global Positioning System device or conventional survey equipment; as such, a potentiometric surface map was not produced.
- Cardno collected two of the proposed four paint chip samples from the debris pile.

3.2 Field Investigation and Methods

3.2.1 Soil Boring Installations & Sampling Activities

Based on the results of the Phase I ESA, nine soil borings (B-1 through B-9) were installed using a track-mounted direct push technology (DPT) drill rig, as depicted on **Figure 3**. Per the Phase II ESA Work Plan and in accordance to Cardno's CSM, borings B-1 through B-5 were converted to temporary monitoring wells (TMW-1 through TMW-5). All boring and monitoring wells were advanced in strategic locations based on the RECs identified in connection with the Subject Property.

During advancement of the soil borings, DPT soil cores were logged for lithology and screened in-field with an Organic Vapor Analyzer (OVA) equipped with a Photoionization Detector (PID). On August 17, 2021, Cardno and a subcontracted drilling company, Steadfast Services Northwest, LLC (Steadfast), mobilized to the Subject Property to perform soil sampling and installation of temporary groundwater monitoring wells. These borings were advanced into groundwater using a track-mounted GeoProbe DPT drill rig. Soil boring logs are included in **Appendix B**.

A summary of each soil boring, including total depth, sampling depth, sample location and intended purpose is outlined below.

Boring B-1 was located along North 1st Avenue and west of the on-Site building. The purpose of the boring was to identify possible contaminant migration from the underground storage tank and automotive service operations on-Site. Boring B-1 was advanced on August 17, 2021, to a total depth of 15 feet below ground surface (bgs). No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from two to four feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Boring B-2 was located within the interior of the southeast corner of the on-Site building. The purpose of the boring was to identify possible contamination from the off-Site dry-cleaning and printing facilities. Boring B-2 was advanced on August 17, 2021, to a total depth of 10 feet bgs. No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from zero to two feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Boring B-3 was located north of the on-Site building and debris/rubble pile. The purpose of the boring was to identify possible contamination from off-Site dry-cleaning and printing facilities. Boring B-3 was advanced on August 17, 2021, to a total depth of 12 feet bgs. No odors or visual indications of contamination were noted in the soil column. A soil sample was collected from zero to two feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Boring B-4 was located north of the on-Site building and west of the on-Site rubble pile. The purpose of the boring was to identify possible contaminant migration from the UST and automotive service operations from the former on-Site underground storage tank and automotive service operations. Boring B-4 was advanced on August 17, 2021, to a total depth of 15 feet bgs. No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from zero to two feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Boring B-5 was located in the center of the on-Site building adjacent to a hydraulic in-ground lift. The purpose of the boring was to identify possible contamination from former auto service operations and the hydraulic in-ground lift. Boring B-5 was advanced on August 17, 2021, to a total depth of 15 feet bgs. No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from zero to two feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, PCBs, DRO, RRO, and GRO.

Boring B-6 was located within the interior of the on-Site building adjacent to a hydraulic in-ground lift. The purpose of the boring was to identify possible contamination from former auto service operations and the hydraulic in-ground lift. Boring B-6 was advanced on August 17, 2021, to a total depth of 10 feet bgs.

No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from zero to two feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, PCBs, DRO, RRO, and GRO. A duplicate soil sample was collected from zero to two feet bgs and analyzed for VOCs.

Boring B-7 was located within the interior of the on-Site building adjacent to a hydraulic in-ground lift. The purpose of the boring was to identify possible contamination from former auto service operations and the hydraulic in-ground lift. Boring B-7 was advanced on August 17, 2021, to a total depth of 10 feet bgs. No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from zero to two feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, PCBs, DRO, RRO, and GRO.

Boring B-8 was located within the interior of the on-Site building and north of the potential UST identified during the GPR survey. The purpose of the boring was to identify possible contaminant migration from the on-Site UST and automotive service operations. Boring B-8 was advanced on August 17, 2021, to a total depth of 6 feet bgs. No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from two to four feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Boring B-9 was located within the interior of the on-Site building near the northern wall. The purpose of the boring was to identify possible contaminant migration from a potential on-Site UST. Boring B-9 was advanced on August 17, 2021, to a total depth of 10 feet bgs. No elevated OVA readings, odors, or visual indications of contamination were noted in the soil column. A soil sample was collected from two to four feet bgs and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

A total of 10 soil samples, including a field duplicate sample, were collected for laboratory analysis. These samples were submitted to Pace Analytical Service, Inc. (Pace), in Mount Juliet, Tennessee, under Chain-of-Custody protocol. A soil analytical summary (detections only) is provided in **Table 1**. Laboratory analytical reports are included in **Appendix D**.

3.2.2 Temporary Monitoring Well Installation & Groundwater Sampling Activities

Five of the soil borings were extended into the water table and converted into temporary groundwater monitoring wells (TMW-1, TMW-2, TMW-3, TMW-4, and TMW-5) on August 17, 2021. Locations of the temporary monitoring wells are depicted on **Figure 4**.

Temporary, one-inch diameter, polyvinyl chloride (PVC) monitoring wells were installed in 10-foot sections after the borings were advanced into the water table. The well screens were 0.010-inch PVC and screen lengths for each well were 10 feet. Silica sand packs were installed to surface.

After their installation, the temporary monitoring wells were developed until at least five well volumes were removed or until the well was fully evacuated of groundwater. Suspended fines and foreign materials from the initial soil borings were purged during development with the goal of encouraging formation groundwater to enter the well screen. Non-aqueous phase liquid (NAPL) or free product was not observed in the temporary monitoring wells during the course of this investigation.

Prior to sampling, the wells were purged with a peristaltic pump until either a minimum of three well volumes were purged or until groundwater quality parameters stabilized. Groundwater quality parameters measured include pH, temperature, conductivity, and dissolved oxygen. These parameters were measured using a YSI ProSeries Professional Plus. Turbidity was measured utilizing a Hach 2100Q turbidity meter to verify that groundwater turbidity was less than 10 Nephelometric Turbidity Units (NTU). Cardno was unable to obtain <10 NTUs in all monitoring wells (TMW-1 through TMW-5); turbidity ranged from 692.34 NTUs in TMW-2 to 33.96 NTUs in TMW-4.

A summary of each installed groundwater well is as follows:

Temporary Monitoring Well TMW-1 was installed at the location of B-1 and over three well volumes were purged. After groundwater parameters stabilized, a groundwater sample was collected on August 18, 2021, and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Temporary Monitoring Well TMW-2 was installed at the location of B-2 and over three well volumes were purged. After groundwater parameters stabilized, a groundwater sample was collected on August 18, 2021, and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Temporary Monitoring Well TMW-3 was installed at the location of B-3 and over three well volumes were purged. After groundwater parameters stabilized, a groundwater sample was collected on August 18, 2021, and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO. A duplicate groundwater sample was collected and analyzed for VOCs.

Temporary Monitoring Well TMW-4 was installed at the location of B-4 and over three well volumes were purged. After groundwater parameters stabilized, a groundwater sample was collected on August 18, 2021, and analyzed for VOCs, SVOCs, RCRA 8 metals, DRO, RRO, and GRO.

Temporary Monitoring Well TMW-5 was installed at the location of B-5 and over three well volumes were purged. After groundwater parameters stabilized, a groundwater sample was collected on August 18, 2021, and analyzed for VOCs, SVOCs, RCRA 8 metals, PCBs, DRO, RRO, and GRO.

A total of six groundwater samples, including a field duplicate sample, were collected and submitted to Pace in Mount Juliet, Tennessee, under chain-of-custody protocol. A groundwater analytical summary (detections only) is provided in **Table 2**. Groundwater sampling logs can be found in **Appendix C**. Laboratory analytical reports are included in **Appendix D**. Following groundwater sampling activities, each of the temporary monitoring wells were decommissioned by a licensed driller.

3.2.3 Investigation Derived Waste

Investigation derived waste (IDW) generated during this investigation included all materials recovered during boring and monitoring well installation and sampling activities. IDW were containerized in a 55-gallon drum which was staged on the Subject Property. A total of one 55-gallon drum was labeled as non-hazardous waste with waste generator information provided. The 55-gallon drum will be disposed at a Subtitle D landfill in accordance with all appropriate regulations.

3.2.4 Ground Penetrating Radar

Based on Cardno's findings from the May 2021 Phase I ESA, the former Markwardt Brothers Garage building was used as an auto repair garage and gasoline filling station. Further, Cardno personnel identified potential UST vent pipes attached to the west interior wall in the vicinity of the area historically used as a gasoline filling station as well as a second vent pipe in the eastern area of the building which potentially serviced a heating oil tank.

On August 17, 2021, Cardno subcontracted GPR Data Inc. (GPR Data) to conduct a ground penetrating radar (GPR) study in the area identified in the 1931 Sanborn FIM and subsurface utility clearing of all boring/well locations. GPR field investigation began with the utilization of a Geophysical Survey Systems Inc. (GSSI) Utility Scan LT GPR system, configured with a 400-Megahertz (MHz) GPR antenna connected to a SIR3000. Upon completion, GPR Data identified one anomaly, appearing to represent patterns, data, and information comparable to a UST in the interior of the building. No other anomalies or evidence of additional USTs were noted. The approximate location of the UST is depicted in **Figure 5** and the GPR report is included in **Appendix E.**

3.2.5 Debris Characterization Analysis

Per the Phase II ESA Work Plan dated June 23, 2021, Cardno proposed to collect up to 10 bulk samples from the debris/rubble pile for laboratory analysis by polarized light microscopy (PLM) to determine

asbestos fiber content. Further, Cardno proposed the collection of up to four (4) paint chip samples to be collected from the debris/rubble pile and analyzed for lead by Toxicity Characteristic Leaching Procedure (TCLP).

During Cardno's Phase II ESA activities, Cardno's Ashton Smithwick, a licensed and accredited asbestos inspector, collected six (6) bulk samples from the debris/rubble pile and submitted these samples to Eurofins EMLab P&K (EMLab) in Norcross Georgia. EMLab analyzed all samples using Polarized Light Microscopy (PLM) via EPA Method 600/R-93/116. This laboratory is accredited by the National Institute of Standards of Technology (NIST), and is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP). EMLab participates as a nationally recognized laboratory accreditation program for asbestos testing, as required by ODEQ regulation OAR 430-248-0270(3)(c). A bulk sample analysis summary is provided in **Table 3**. A copy of the analytical results including the laboratory certification is included in **Appendix D.**

Further, Mr. Smithwick, an EPA-trained lead-based paint (LBP) inspector, collected two samples from the debris/rubble pile to be analyzed for lead by Toxicity Characteristic Leaching Procedure (TCLP). These samples were submitted to Pace in Mount Juliet, Tennessee, under chain-of-custody protocol. A TCLP analysis summary is provided in **Table 4.** A copy of the analytical results including the laboratory certification is included in **Appendix D**.

4 Environmental Assessment Results

4.1 Site Geology

Based on the soil boring log data, soil underlying the Site predominantly consists of unconsolidated sand and silt deposits to the deepest terminal boring depth of 15 feet below ground surface (bgs). Generally, these deposits were represented by sandy silt, with less common observances of gravel and clay. Soil was consistently observed to be brown with the exception of the sand observed from 13.5-15 feet bgs in boring B-5 which was observed to be gray.

4.2 Site Groundwater

Groundwater was encountered in soil borings B-1 through B-5 between 5 and 8 feet bgs. Static groundwater on August 18, 2021, was observed between 9.59 and 10.62 feet below top of temporary well casings, which approximately corresponded to ground surface elevations. A summary of shallow water table data collected on August 18, 2021, is provided on **Table 5**.

4.3 Analytical Data Results

4.3.1 Soil

A comparison of the laboratory analytical results to the ODEQ RBCs (ODEQ, 2018) for sample results above laboratory reporting limits is presented in **Table 1**.

Select VOC (**1,2,4-trimethybenzene** and **xylenes (total**), RCRA 8 metal (**barium**, **chromium**, **lead**, and **mercury**), DRO, and RRO concentrations were present above laboratory reporting limits. A discussion of soil analytical results and exceedances of applicable RBCs is included in Section 5.

SVOCs, PCBs, and GRO concentrations were not present above laboratory reporting limits in soil samples analyzed from the Site.

4.3.2 Groundwater

A comparison of the laboratory analytical results to the RBCs for sample results above laboratory reporting limits is presented in **Table 2**.

With the exception of **GRO**, **barium**, **chromium**, and **lead**, analyzed constituents were not present in groundwater above laboratory reporting limits. A discussion of groundwater analytical results and exceedances of applicable RBCs is included in Section 5.

VOCs, SVOCs, DRO, and RRO concentrations were not reported above laboratory reporting limits in groundwater samples analyzed from the Site.

4.3.3 Quality Assurance and Quality Control Methods

Samples were labeled with a distinct sample identification number, the sampler's initials, and the date of the collection. Each sample container was sealed, labeled, placed on ice in a cooler, and shipped to Pace within the sample hold times. A completed chain-of-custody form was initiated in the field and accompanied the samples when submitted to the laboratory for analyses.

Copies of the chain-of-custody forms are shown in the laboratory analytical reports included as **Appendix D.**

4.3.4 Debris Characterization Analysis

Based on the analytical results of suspect ACM samples collected from the debris pile for the purpose of debris characterization, the following materials were identified as asbestos-containing:

- White texture with paint on drywall
- White joint compound on drywall

The drywall identified throughout the debris/rubble pile appeared to be in poor condition and is considered a friable material. The laboratory report is included as **Appendix D** with results summarized in **Table 3**. Additionally, samples collected from the debris/rubble pile and analyzed for TCLP indicated lead was below laboratory method detection limits. The laboratory report is included as **Appendix D** with results summarized in **Table 4**.

5 Conceptual Site Model

The conceptual site model (CSM) takes into consideration the potential distribution(s) of contaminants with respect to the property and anticipated fate and transport characteristics of contaminants in the setting being assessed. The CSM further summarizes the receptors (human and ecological) and potential exposure pathways to regulated contaminants discovered in the Site subsurface (soil, groundwater, and soil vapor). Human exposure to contaminants on the Subject Property is evaluated according to the type and extent of exposure expected based on the Site's current and reasonable future use. ODEQ publishes RBCs for commonly discovered contaminants (ODEQ, 2018). The RBCs are calculated for varying exposure pathways and scenarios, and are conservative estimates of protective levels of contaminant concentrations in soil, groundwater, and air.

5.1 Sources

The sources of contaminant concentrations on the Subject Property include the potential for a release of petroleum products to the soil and groundwater from historical on-site automotive repair and operation of an UST system used to dispense fuels.

5.2 Potential Exposure Pathways and Receptors

Current and likely future land uses according to zoning regulations or known redevelopment plans were used to develop a model describing potential exposure pathways on the Subject Property. The Subject Property is currently an unoccupied building originally constructed as an automotive repair and gasoline filling station facility, zoned for commercial use, located in an area with a mix of residential and occupational uses on adjoining and nearby properties. According to Klamath County zoning ordinance, the Site's commercial zoning class allows for the following uses:

- Retail trade establishments such as food stores, drug stores, hardware stores, furniture stores, appliance sales, equipment sales, automobile sales, or clothing sales;
- Business, governmental or professional office;
- Service commercial establishment such as motel, gasoline service station or restaurant;
- Financial institution;
- Personal and business service such as barber shop, tailoring shop, printing shop, laundry or dry cleaning establishment;
- Commercial amusement such as a bowling alley or theater;
- Similar uses as authorized by the city council;

Therefore, potential human receptors on the Site and on nearby/off-Site properties could include residential, occupational, construction workers, and excavation workers.

The exposure pathways for the Site and a determination if said pathways are considered complete are summarized in the following table:

Pathway	Potential Receptor	Complete Pathway?	Basis for selection/exclusion
SOIL			
Ingestion, dermal contact,and inhalation	Residential	No	There are no contaminant concentrations exceeding residential ingestion/dermal contact/inhalation RBCs.

Pathway	Potential Receptor	Complete Pathway?	Basis for selection/exclusion
	Occupational	No	There are no contaminant concentrations exceeding occupational ingestion/dermal contact/inhalation RBCs.
	Construction worker	No	There are no contaminant concentrations exceeding construction worker ingestion/dermal contact/inhalation RBCs.
	Excavation worker	No	There are no contaminant concentrations exceeding excavation worker ingestion/dermal contact/inhalation RBCs.
Vapor intrusion into buildings and outdoor air	Residential	No	There are no contaminant concentrations exceeding residential or occupational vapor intrusion RBCs.
	Occupational	No	
Leaching to groundwater	Residential	No	Lead was detected above the residential and occupational leaching to groundwater RBC. However, the leaching to groundwater pathway is incomplete on the Subject Property and Locality of the Facility based on empirical groundwater data collected from the Site, and the availability of municipal drinking water to the Site and surrounding area.
	Occupational	No	
GROUNDWATER			
Ingestion and inhalationfrom tap water	Residential	No	The groundwater pathway is incomplete at the Subject Property and in the Locality of the Facility due to the availability of municipal drinking water to the Site and surrounding area.
	Occupational	No	
Vapor intrusion into buildings and outdoor air	Residential	No	There are no contaminant concentrations exceeding residential or occupational vapor intrusion RBCs.
	Occupational	No	
Groundwater in excavation	Construction and excavation worker	No	There are no contaminant concentrations exceeding occupational groundwater in excavation RBCs.

Note: Yes = Pathway is complete; No = Pathway is incomplete; Potential = Pathway may be potentially complete in the future

5.3 Risk-Based Screening of Laboratory Analytical Data

In order to evaluate the risk posed to human health and the environment, the soil and groundwater analytical data collected during this assessment was compared to the generic RBCs developed by ODEQ.

5.3.1 Soil

5.3.1.1 Direct Contact (Ingestion, Dermal Contact, and Inhalation)

VOC, **GRO**, **DRO, RRO**, and **RCRA 8 metal** constituents with reported concentrations above laboratory method detection limits do not exceed direct contact RBCs in soil samples collected from the Site.

5.3.1.2 Vapor Intrusion into Buildings and Volatilization into Outdoor Air

Concentrations of **VOC**s in soil samples do not exceed vapor intrusion into buildings or volatilization into outdoor air RBCs.

5.3.1.3 Leaching to Groundwater

Lead concentrations in the soil samples collected from B-2, B-3, B-6, and B-7 exceed the leaching to groundwater RBC of 30 milligrams per kilogram; however, lead was not reported above laboratory reporting limits in groundwater samples collected from the Site, with the exception of TMW-3 where lead was reported at 26.7 µg/L. The leaching to groundwater pathway is incomplete on the Subject Property and Locality of the Facility based on the empirical groundwater data from the Site and the availability of municipal drinking water to the Subject Property and surrounding area.

5.3.2 Groundwater

5.3.2.1 Direct Contact (Ingestion and Inhalation)

Concentrations of analyzed constituents do not exceed direct contact RBCs.

5.3.2.2 Vapor Intrusion into Buildings and Volatilization into Outdoor Air

Concentrations of analyzed constituents do not exceed volatilization to outdoor air or vapor intrusion into buildings RBCs.

5.3.2.3 Groundwater in Excavation

Concentrations of analyzed constituents do not exceed groundwater in excavation RBCs.

6 Discussion of Findings

6.1 Recognized Environmental Conditions

Based on the results of this assessment, the recognized environmental conditions and non-scope considerations discussed in the previous Phase I ESA appear to have been evaluated. No additional RECs were encountered during this investigation.

6.2 Affected Media

6.2.1 Soil Impacts

Lead concentrations reported in soil samples B-2, B-3, B-6, and B-7 exceed the residential and occupational leaching to groundwater RBC; however, no lead concentrations were reported above laboratory reporting limits with the exception of TMW-3 at 26.7 µg/L. Therefore, the general absence of lead in groundwater samples collected from the Site and the availability of municipal drinking water to the surrounding area mitigates the risk of lead leaching to groundwater.

6.2.2 Groundwater Impacts and Shallow Depth to Groundwater

Groundwater samples did not contain concentrations of analyzed constituents exceeding applicable residential and occupational RBCs.

Groundwater was observed across the Site at approximately 10 feet bgs.

6.2.3 Debris Characterization

White texture with paint and white joint compound were identified as asbestos-containing and the drywall on which they were found is considered a friable material. Painted building materials from the debris pile were collected and analyzed for lead using the TCLP. TCLP results were below laboratory reporting limits. The debris/rubble pile equates to approximately 200 cubic yards, and should be disposed of as regulated asbestos waste in accordance with federal, state, and local guidelines.

6.3 Vapor Intrusion Screening

Based on groundwater analytical results, the potential for vapor intrusion and/or encroachment is not a concern for the Subject Property’s current or future developed status.

7 Phase II ESA Conclusions & Recommendations

Cardno has completed a Phase II ESA for the former Markwardt Brothers Garage property, located northeast of the North 1st Avenue and West Chocktoot Street intersection, in Chiloquin, Oregon. The Phase II ESA was conducted to determine if the RECs identified by Cardno in the May 2021 Phase I ESA have impacted soil, groundwater, or vapor conditions at the Site. In order to address these RECs, a series of soil borings and temporary monitoring wells were installed in pre-determined locations. Soil and/or groundwater samples were submitted for laboratory analysis from each of the borings.

The soil and groundwater samples were selectively analyzed for VOCs, SVOCs, RCRA 8 metals, PCBs, GRO, DRO, and RRO. With the exception of lead in soil samples collected from borings B-2, B-3, B-6, and B-7, analyzed constituents were not present at concentrations exceeding their respective RBCs. Based on the aforementioned results of this Phase II ESA and the Beneficial Land and Water Use completed in association with this, Cardno did not discover a complete exposure pathway with respect to hazardous substance or petroleum product impacts to soil or groundwater.

Due to the potential for on-Site UST(s), lifts, and oil-change pit to contain remnant petroleum products, Cardno recommends the following actions to both facilitate redevelopment/reuse efforts on the Site and to protect future construction or excavation workers if these features are inadvertently encountered, or for future Site occupants in the event they result in a future release to the Site subsurface:

- Based on the GPR report provided by GPR Data, the area of the potential UST anomaly should be further investigated. If a UST is discovered, said UST should be decommissioned and reported in accordance with ODEQ guidelines;
- The potential for an additional heating oil UST in the Subject Property's east area (building interior east wall) should be further evaluated by installing a test pit/exploratory excavation, and if confirmed, the UST should be decommissioned in accordance with ODEQ guidelines;
- The in-ground hydraulic lifts and oil-change pit should be decommissioned by removal;
- Any concrete or soil removed from the Site should be characterized and directed to an appropriately permitted landfill for disposal;
- The debris/rubble pile should be characterized as regulated asbestos waste, and should be removed from the Site by a qualified asbestos abatement contractor in compliance with federal, state, and local regulations.

8 Qualifications/Signatures of Environmental Professional(s)

Prepared by:

I declare that I meet the definition of Environmental Professional as defined in 40 CFR Part 312.10 and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I further certify that in my professional judgment, this report meets the general requirements of *ASTM Method E1903-19, Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

for Cardno

W. Ashton Smithwick
Geologist I

Date: November 2021

QA/QC by:

I declare that I meet the definition of Environmental Professional as defined in 40 CFR Part 312.10 and that I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I further certify that in my professional judgment, this report meets the general requirements of *ASTM Method E1903-19, Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

for Cardno

Keri L. Chappell, R.G.
Project Geologist

Date: November 2021

for Cardno

Keith Ziobron, PE
Senior Principal

Date: November 2021

9 References

ASTM International. 2013. *ASTM Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.*

ASTM International. 2019. *ASTM Method E1903-19, Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process.*

Cardno. May 17, 2021a. *Asbestos & Lead-Based Paint Survey, Former Markwardt Brothers Garage, North 1st Avenue and West Chocktoot Street, Chiloquin, Klamath County, Oregon.*

Cardno. May 17, 2021b. *Phase I Environmental Site Assessment, Former Markwardt Brothers Garage, Chiloquin, Klamath County, Oregon.*

Cardno. June 23, 2021c. *Phase II Environmental Site Assessment Work Plan, Former Markwardt Brothers Garage, North 1st Avenue and West Chocktoot Street, Chiloquin, Oregon*.

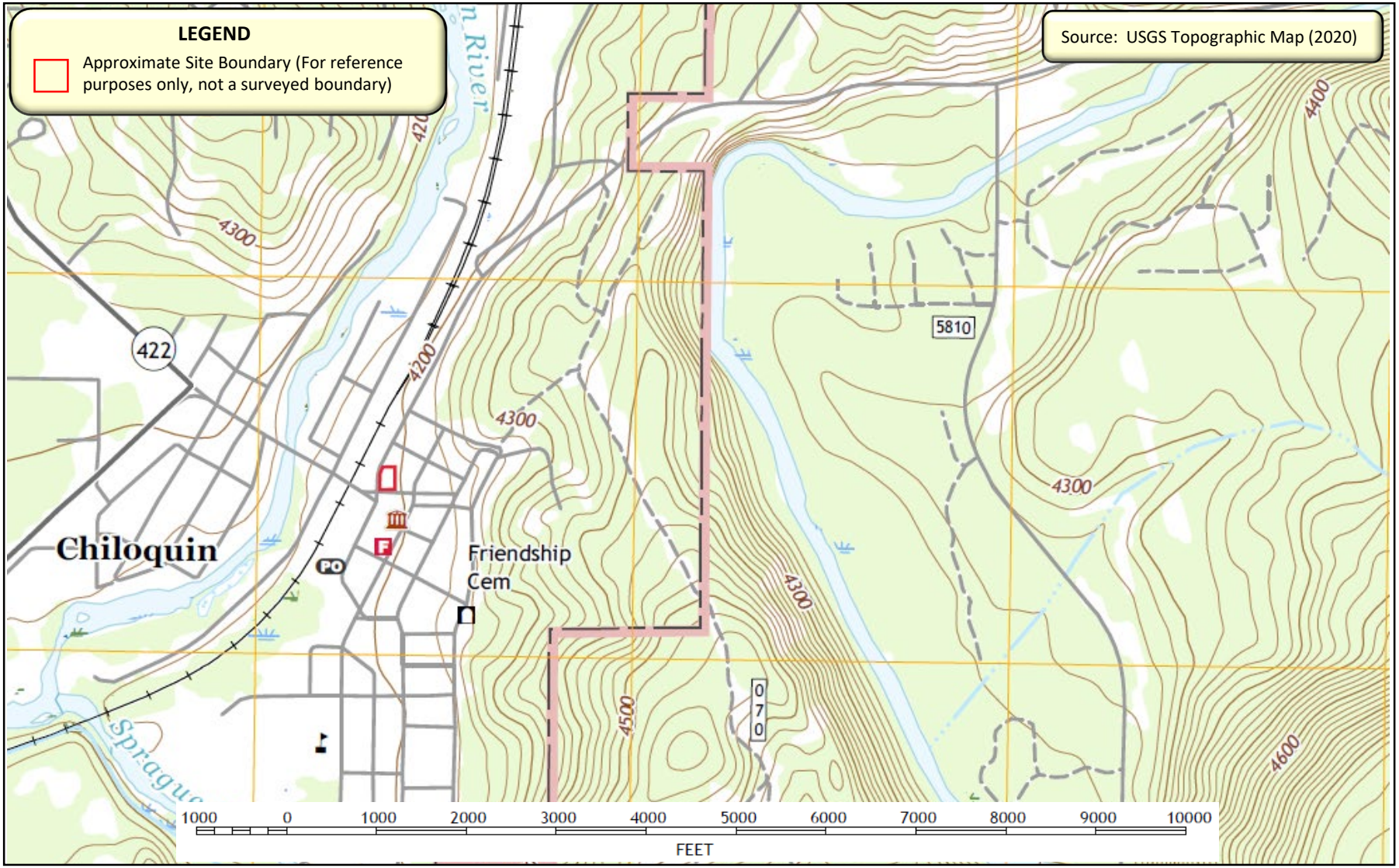
Oregon Department of Environmental Quality (ODEQ). July 1, 1998a. *Guidance for Consideration of Land Use in Environmental Remedial Actions*. (October 2017 update to contact information and website links).

Oregon Department of Environmental Quality (ODEQ). July 1, 1998b. *Guidance for Conducting Beneficial Water Use Determinations at Environmental Cleanup Sites*. (October 2017 update to contact information and website links).

Oregon Department of Environmental Quality, Environmental Cleanup Program (ODEQ). May 2018. *Risk-Based Concentrations for Individual Chemicals*

FORMER MARKWARDT
BROTHERS GARAGE

FIGURES

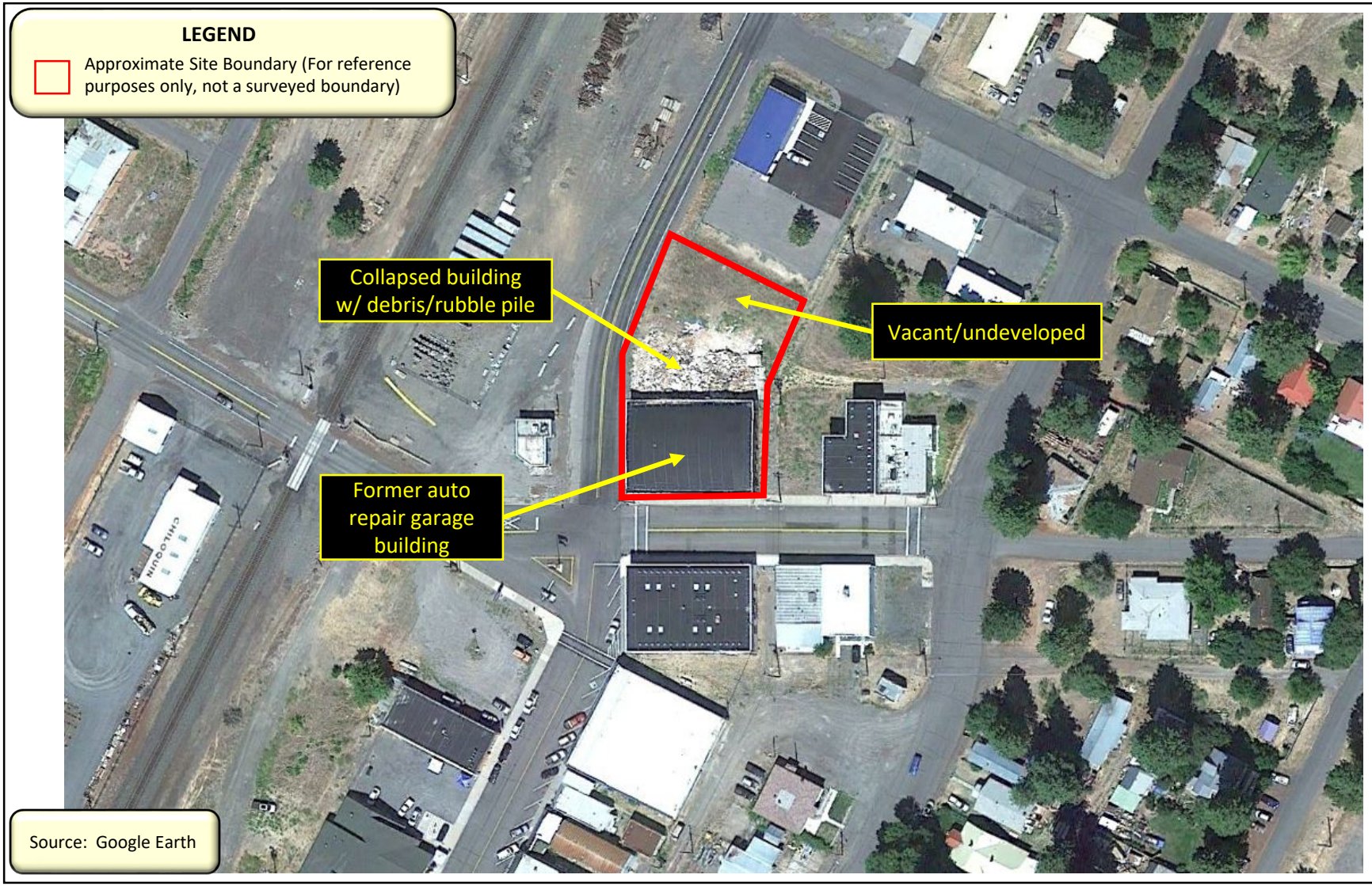


Cardno
Shaping the Future

"This is not a map of survey."

Phase II ESA
Former Markwardt Brothers Garage
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 1
Site Vicinity Map



Cardno Shaping the Future

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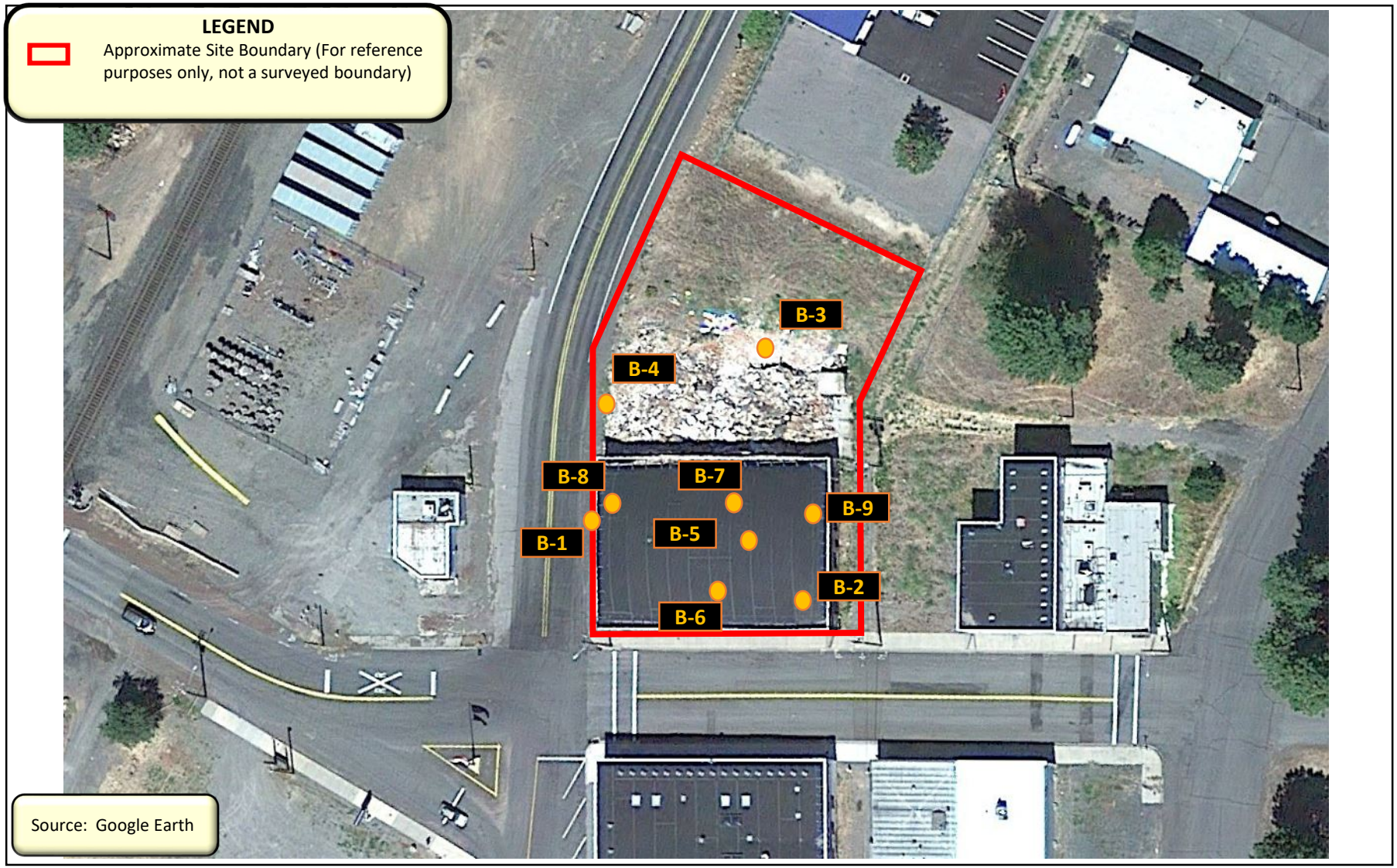
Map not scaled

Phase II ESA
Former Markwardt Brothers Garage
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 2
Site Boundary Map



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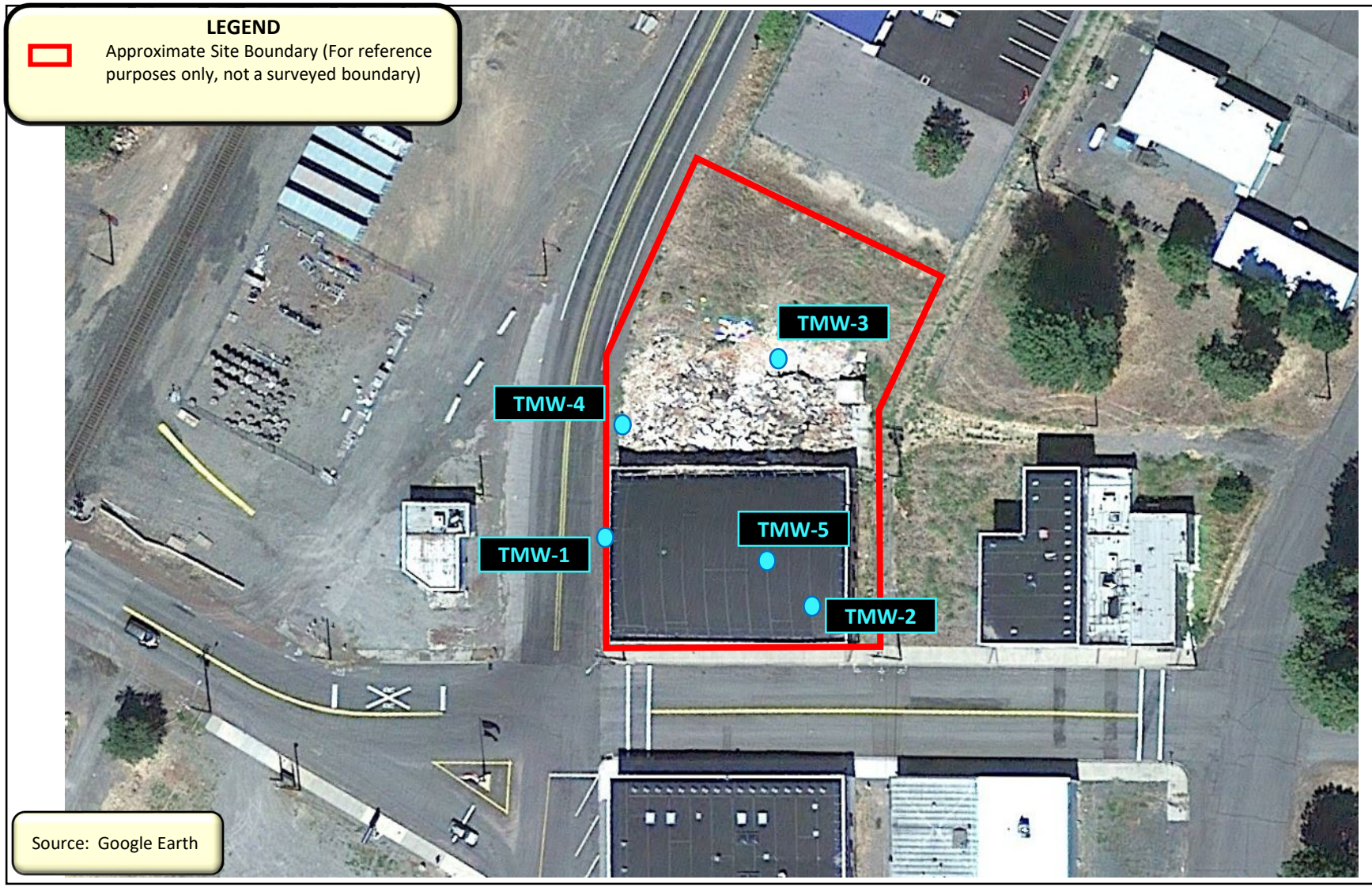
Phase II ESA
Former Markwardt Brothers Garage
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 3
Soil Boring Location Map



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Phase II ESA
Former Markwardt Brothers Garage
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 4
Temporary Monitoring Well Location Map

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Map not scaled

Phase II ESA
Former Markwardt Brothers Garage
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 5
Potential UST Location Map

FORMER MARKWARDT
BROTHERS GARAGE

TABLES

TABLE 1: SOIL ANALYTICAL SUMMARY

FORMER MARKWARDT BROTHERS GARAGE
CHILOQUIN, KLAMATH COUNTY, OREGON

											Sample Identification									
										Soil Boring	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9	B-6 DUP
										Sample Depth (feet bgs)	2-4	0-2	0-2	0-2	0-2	0-2	0-2	2-4	2-4	0-2
										Sample Date	08.17.2021	08.17.2021	08.17.2021	08.17.2021	08.17.2021	08.17.2021	08.17.2021	08.17.2021	08.17.2021	08.17.2021
	Residential Receptor Scenario				Occupational Receptor Scenario				Construction Worker Receptor Scenario	Excavation Worker Receptor Scenario	Results presented in mg/kg or parts per million (DETECTIONS ONLY)									
RCRA Metals	**RBCss**	**RBCso**	**RBCsi**	**RBCsw**	**RBCss**	**RBCso**	**RBCsi**	**RBCsw**	**RBCss**	**RBCss**										
Barium	**15,000**	NV	NV	*	**220,000**	NV	NV	*	**69,000**	>Max	198	182	183	167	202	156	199	170	195	NA
Chromium	**120,000**	NV	NV	*	>Max	NV	NV	*	**530,000**	>Max	26.8	18.0	13.9	16.9	24.0	15.8	14.1	18.7	17.4	NA
Lead	**400**	NV	NV	**30**	**800**	NV	NV	**30**	**800**	**800**	1.85	**119**	**54.1**	4.35	2.11	**36.8**	**58.9**	1.20	14.0	NA
Mercury	**23**	NV	NV	*	**350**	NV	NV	*	**110**	**2,900**	*<0.0569*	*<0.0558*	0.0536	*<0.0547*	*<0.0587*	*<0.0537*	*<0.0544*	*<0.0548*	*<0.0537*	NA
NWTPH-Dx	**RBCss**	**RBCso**	**RBCsi**	**RBCsw**	**RBCss**	**RBCso**	**RBCsi**	**RBCsw**	**RBCss**	**RBCss**	Results presented in mg/kg or parts per million (DETECTIONS ONLY)									
Diesel Range Organics (C12 - C24)	**1,100**	>Max	>Max	**9,500**	**14,000**	>Max	>Max	>Max	**4,600**	>Max	*<5.69*	13.0	*<5.05*	*<5.47*	*<5.87*	111	*<5.44*	*<5.48*	*<5.37*	NA
Residual Range Organics (>C24)	**2,800**	>Max	>Max	>Max	**36,000**	>Max	>Max	>Max	**11,000**	>Max	*<14.2*	75.1	17.6	*<13.7*	*<14.7*	564	*<13.6*	*<13.7*	*<13.4*	NA
VOCs	**RBCss**	**RBCso**	**RBCsi**	**RBCsw**	**RBCss**	**RBCso**	**RBCsi**	**RBCsw**	**RBCss**	**RBCss**	Results presented in mg/kg or parts per million (DETECTIONS ONLY)									
1,2,4-Trimethylbenzene	**430**	>Csat	**140**	**10**	**6,900**	>Csat	>Csat	**48**	**2,900**	**81,000**	*<0.0134*	*<0.0143*	0.0176	*<0.0130*	*<0.0186*	*<0.0169*	*<0.0169*	*<0.0149*	*<0.0163*	*<0.0164*
Xylenes (total)	**1400**	>Csat	**160**	**23**	**25,000**	>Csat	>Csat	**100**	**20,000**	**560,000**	*<0.0174*	*<0.0186*	0.0581	*<0.0170*	*<0.0242*	*<0.0218*	*<0.0219*	*<0.0194*	*<0.0211*	*<0.0214*
SVOCs	**No SVOC constituents reported above laboratory method detection limits**										BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NA
NWTPH-Gx	**NWTPH-Gx not reported above laboratory method detection limits**										BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	NA
PCBs	**No PCB constituents reported above laboratory method detection limits**										NA	NA	NA	NA	BRL	BRL	BRL	NA	NA	NA

RBC = Risk-Based Concentration screening value

RBCss = Soil Ingestion, Dermal Contact, and Inhalation / **RBCso** = Volatilization to Outdoor Air / **RBCsi** = Vapor Intrusion into Buildings / **RBCsw** = Leaching to Groundwater

Concentrations in **bold** exceed ODEQ residential and/or occupational RBC(s)

VOC = Volatile Organic Compound

SVOC = Semi-Volatile Organic Compound

NWTPH-Gx = Northwest Total Petroleum Hydrocarbons - Gasoline

NWTPH-Dx = Northwest Total Petroleum Hydrocarbons - Diesel

PCBs = Polychlorinated Biphenyls

RCRA = Resource Conservation Recovery Act

mg/kg = milligrams per kilogram

B = Soil Boring

bgs = below ground surface

BRL = Below Reporting Limits

NA = Not Analyzed

NV = Non-Volatile chemical (no RBC for volatilization pathway)

>Max = The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.

>Csat = The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of Csat indicate that free product might be present.

* = Leaching-to-Groundwater RBCs are not provided in ODEQ RBC generic tables for inorganic chemicals. This pathway is not of concern, and site-specific leaching tests are not recommended.

TABLE 2: GROUNDWATER ANALYTICAL SUMMARY

FORMER MARKWARDT BROTHERS GARAGE
CHILOQUIN, KLAMATH COUNTY, OREGON

RCRA Metals	Temporary Monitoring Well					Sample Identification					
						TMW-1	TMW-2	TMW-3	TMW-4	TMW-5	TMW-3 DUP
	Sample Date					08.18.2021	08.18.2021	08.18.2021	08.18.2021	08.18.2021	08.18.2021
	Residential Receptor Scenario		Occupational Receptor Scenario		Construction & Excavation Worker Receptor Scenario	Results presented in µg/L or parts per billion (DETECTIONS ONLY)					
	RBCwo	RBCwi	RBCwo	RBCwi	RBCwe						
Barium	NV	NV	NV	NV	>S	25.6	60.9	38.3	9.10	91.9	NA
Chromium	NV	NV	NV	NV	**9,400**	*< 10.0*	11.8	*< 10.0*	*< 10.0*	14.0	NA
Lead	NV	NV	NV	NV	>S	*< 6.0*	*< 6.0*	26.7	*< 6.0*	*< 6.0*	NA
NWTPH-Gx	**RBCwo**	**RBCwi**	**RBCwo**	**RBCwi**	**RBCwe**	**Results presented in µg/L or parts per billion (DETECTIONS ONLY)**					
Gasoline Range Organics (C7 - >C12)	>S	**22,000**	>S	>S	**14,000**	159 B	115 B	*< 100*	*< 100*	*< 100*	NA
VOCs	**No VOC constituents reported above laboratory method detection limits**					BRL	BRL	BRL	BRL	BRL	BRL
NWTPH-Dx	**No NWTPH-Dx constituents reported above laboratory method detection limits**					BRL	BRL	BRL	BRL	BRL	NA
PCBs	**No PCB constituents reported above laboratory method detection limits**					NA	NA	NA	NA	BRL	NA
SVOCs	**No SVOC constituents reported above laboratory method detection limits**					BRL	BRL	BRL	BRL	BRL	NA

RBC = Risk-Based Concentration screening value

RBCwo = Volatilization to Outdoor Air / **RBCwi** = Vapor Intrusion into Buildings / **RBCwe** = Occupational Contact with Groundwater in Excavation

Concentrations in **bold** exceed ODEQ residential and/or occupational RBC(s)

VOC = Volatile Organic Compound

SVOC = Semi-Volatile Organic Compound

NWTPH-Gx = Northwest Total Petroleum Hydrocarbons - Gasoline

NWTPH-Dx = Northwest Total Petroleum Hydrocarbons - Diesel

PCBs = Polychlorinated Biphenyls

RCRA = Resource Conservation Recovery Act

µg/L = micrograms per liter

TMW = Temporary Monitoring Well

bgs = below ground surface

BRL = Below Reporting Limits

NA = Not Analyzed

NV = Non-Volatile chemical (no RBC for volatilization pathway)

B = Analyte present in associated method blank

>S = The constituent RBC for this pathway is calculated as greater than constituent solubility in groundwater (i.e. present in subsurface as undissolved or "free product"/"Non-Aqueous Phase Liquid")

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TABLE 3: SUMMARY OF BULK SAMPLE ANALYSIS

FORMER MARKWARDT BROTHERS GARAGE
CHILOQUIN, KLAMATH COUNTY, OREGON

HA ID	Date	HA Description	Material Location	Percent and Type of Asbestos Detected[1]	Estimated Quantity	Type of ACM[2]	Friability[3]	Physical Condition
RP-01-01	8/18/21	Shingles	Rubble pile (east)	NAD	N/A	N/A	NF	Poor
RP-01-02	8/18/21	Shingles	Rubble pile (north)	NAD	N/A	N/A	NF	Poor
RP-02-01a	**8/18/21**	**Drywall (White texture w/ paint)**	**Rubble pile (west)**	**2% CH**		**Misc. Cat 1**	**F**	**Poor**
RP-02-01b	8/18/21	Drywall (Cream tape)	Rubble pile (west)	NAD	N/A	N/A	F	Poor
RP-02-01c	**8/18/21**	**Drywall (White joint compound)**	**Rubble pile (west)**	**2% CH**		**Misc. Cat 1**	**F**	**Poor**
RP-02-01d	8/18/21	Drywall (White drywall w/ brown paper)	Rubble pile (west)	NAD	N/A	N/A	F	Poor
RP-02-02a	8/18/21	Drywall (Cream tape)	Rubble pile (north)	NAD	N/A	N/A	NF	Poor
RP-02-02b	**8/18/21**	**Drywall (White joint compound)**	**Rubble pile (north)**	**2% CH**		**Misc. Cat 1**	**F**	**Poor**
RP-02-02c	8/18/21	Drywall (White drywall w/ brown paper)	Rubble pile (north)	NAD	N/A	N/A	NF	Poor
RP-03-01	8/18/21	Gray caulk	Rubble pile (west)	NAD	N/A	N/A	NF	Poor
RP-03-02	8/18/21	Gray caulk	Rubble pile (east)	NAD	N/A	N/A	NF	Poor

Notes:
(1) CH = Chrysotile; AM = Amosite; CR = Crocidolite; AN = Anthophyllite; AC = Actinolite; NAD = No Asbestos Detected
(2) Misc = Miscellaneous; TSI = Thermal System Insulation; SM= Surfacing Material
(3) F = Friable; NF - Non friable. For ACMs only: I = Non-Friable Category I; II = Non-Friable Category II
NM - not measured LF = linear feet PACM = Presumed Asbestos-Containing Materials
n/a - not applicable SF = square feet CY = Cubic Yards
Samples in **Bold** and yellow highlight contain asbestos above the regulatory threshold of 1%

TABLE 4: SUMMARY OF TOXICITY CHARACTERISTIC LEACHING PROCEDURE

FORMER MARKWARDT BROTHERS GARAGE
CHILOQUIN, KLAMATH COUNTY, OREGON

Sample ID	Date	Location	Result (Lead)	Estimated Quantity	Physical Condition
RP-01	8/18/21	Rubble pile (east)	BRL	N/A	Deteriorated
RP-02	8/18/21	Rubble pile (west)	BRL	N/A	Deteriorated

Notes:

NM = not measured

BRL = Below Laboratory Reporting Limit

N/A = not applicable

TABLE 5: GROUNDWATER DEPTH SUMMARY

FORMER MARKWARDT BROTHERS GARAGE
CHILOQUIN, KLAMATH COUNTY, OREGON

Well Number	Measurement Date	Depth of Well (ft btc)	Depth to Water (ft btc)
TMW-1	8/18/2021	13.00	10.51
TMW-2	8/18/2021	14.47	10.11
TMW-3	8/18/2021	11.43	9.59
TMW-4	8/18/2021	14.80	10.62
TMW-5	8/18/2021	13.28	10.08

ft btc = Feet Below Top of Casing

FORMER MARKWARDT
BROTHERS GARAGE

APPENDIX

A

PREVIOUS ENVIRONMENTAL
REPORT(S) EXCERPTS

Phase I Environmental Site Assessment Report

Former Markwardt Brothers Garage
Chiloquin, Klamath County, Oregon

May 17, 2021

Prepared for:
City of Chiloquin, Oregon

Cardno
Shaping the Future

Phase I Environmental Site Assessment Report

Prepared for: City of Chiloquin, Oregon

Project Name: **Phase I Environmental Site Assessment**
Former Markwardt Brothers Garage
Chiloquin, Klamath County, Oregon

Cardno Project #: CHILOQ100

Date: May 17, 2021

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1 Executive Summary

Cardno has completed a Phase I Environmental Site Assessment (ESA) of the Former Markwardt Brothers Garage property located in Chiloquin, Klamath County, Oregon (**Figure 1**). The Subject Property is currently developed with a single-story commercial building totaling approximately 8,500 square feet (sq. ft.) of concrete block and brick construction, some of which is coated with plaster/stucco.

According to the City of Chiloquin Public Works Department, the remaining on-site building was utilized as an auto repair/car dealership facility from approximately the 1930s – 1960s; second-hand store in the 1970s; and Juniper wood products facility in the 1980s. Until recently the area of the site to the north of the on-site building was occupied by a commercial building that recently collapsed with the exception of a vault that still remains. All that remains is a pile of rubble. This building was formerly occupied by the Chiloquin Mercantile. The area to the north of the rubble pile consist of vacant land once occupied by a rooming house.

The remaining building is currently vacant and the site is owned by and in the care of Klamath County. The subject site/property is located in downtown Chiloquin, Oregon, which will herein be referred to as "The Subject Site/Property" or "the Site". According to information on the Klamath County Tax Assessor records the Subject Property consists of two parcels (Parcel ID 3407-034DC-00500 and Parcel ID 3407-034DC-00400) of land totaling approximately 0.55 acres and is located at the northeast of the North 1st Avenue and West Chocktoot Street intersection (**Figure 2-3**).

Photos of the Subject Property and surrounding properties taken during the site visit are provided in **Appendix A.** A surrounding land use map is provided as **Figure 4**. This assessment was performed under and funded by the City of Chiloquin's Business of Oregon Brownfield Grant in general accordance with *40 CFR Part 312 Standards and Practices for All Appropriate Inquiries* and *ASTM Standard Practices E1527-13 for Environmental Site Assessments.*

This assessment was performed to satisfy the requirements of City of Chiloquin (Client) with respect to identifying potential environmental impairment and liabilities associated with the property due to contamination by hazardous substances, controlled substances, or petroleum products on or near the site. The City of Chiloquin is considering taking title to the Subject Property and is of the opinion that the property may have significant residential, commercial, or mixed-use development potential.

This Phase I Environmental Site Assessment was completed in general accordance with ASTM Standard: E 1527-13 – Standard Practice for Environmental Site Assessments. This report meets the general requirements for conducting all appropriate inquiry into the previous ownership, uses, and environmental conditions of a property, as specified in 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries. Furthermore, this work was conducted by or under the responsible charge of an environmental professional as defined in 40 CFR §312.10.

ASTM Standard Practice E1527-13 defines a Recognized Environmental Condition (REC) as:

> "The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment, 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment. The term is not intended to include *de Minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

ASTM Standard Practice E1527-13 defines a Controlled Recognized Environmental Condition (CREC) as:

> "A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

ASTM Standard Practice E1527-13 defines a Historical Recognized Environmental Condition (HREC) as:

> "A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls."

1.1 Findings and Conclusions

Cardno completed this Phase I ESA of the Subject Site in conformance with the scope and limitations of ASTM Standard E 1527-13. Any exceptions to or deletions from this practice are described in Section 2.0 of this report. The following RECs associated with the Subject Property were identified during this assessment:

FINDINGS AND CONCLUSIONS SUMMARY						
Report Section		**Further Action?**	***De minimis* Condition**	**REC and/or CREC**	**HREC**	**Description**
4.0	**User Provided Information**	No	No	No	No	
5.1	**Federal, State and Local Database Findings**	No	No	No	No	The former Texaco gas station to the west across North 1st Avenue is considered a HREC as it received a No Further Action designation from Oregon DEQ. (**HREC #1**).
5.2	**Additional Environmental Record Sources**	No	No	No	No	
5.3	**Local Environmental Record Sources**	No	No	No	No	
5.3	**Historical Records Sources**	Yes	No	Yes	No	A Printing facility (**REC #4**) and a Cleaning facility (**REC #5**) were identified in the 1931 Sanborn FIM.
6.2	**Hazardous Substance Use, Storage and Disposal**	Yes	No	Yes	No	Former use as an auto repair garage of unknown best management practices in disposal of hazardous substances (**REC #2**).
6.3	**Underground Storage Tanks**	Yes	No	Yes	No	Possible UST(s) and/or heating oil tank on the Subject Property (**REC #1 & 3**).
6.4	**Aboveground Storage Tanks**	No	No	No	No	
6.5	**Other Petroleum Products**	No	No	No	No	
6.6	**Polychlorinated Biphenyls (PCBs)**	Yes	No	Yes	No	Three in-ground hydraulic lifts were observed in the on-site building (**REC #2**).
6.7	**Unidentified Substance Containers**	No	No	No	No	
6.8	**Nonhazardous Solid Waste**	No	No	No	No	A pile of wood chips was observed within the on-site building. The former adjacent building to the North was demolished and the associated debris remains on-site.
6.9	**Wastewater**	No	No	No	No	
6.10	**Waste Pits, Ponds, and Lagoons**	No	No	No	No	
6.11	**Drains and Sumps**	No	No	No	No	
6.12	**Septic Systems**	No	No	No	No	

6.13	**Storm water Management System**	No	No	No	No	A stormwater drain was observed along W. Chocktoot St.
6.14	**Wells**	No	No	No	No	
7.0	**Subsurface Vapor Migration**	Yes	No	Yes	No	There is potential for vapor migration from the RECs below (**RECs #1-5**).
8.0	**Interviews**	No	No	No	No	
9.1	**Asbestos Containing Material**	Yes	No	No	No	Asbestos-containing materials have been identified in association with the remaining building. The potential for asbestos containing material in the debris form the collapsed building also exists.
9.2	**Lead-Based Paint**	Yes	No	No	No	Lead-based paints have been identified in association with the remaining building. The potential for lead-based paint in the debris from the collapsed building also exists.

The RECs identified during this assessment are located on **Figure 6.** Phase II ESA investigations and/or other actions are recommended to fully characterize the Subject Property.

On-Site REC

1. According to the 1931 Sanborn FIM, the building was used as an auto repair garage and an area with-in the on-site building, at the southwest corner, is labeled “Gas & Oil”. Further, during site reconnaissance, Cardno personnel identified a potential UST vent pipe attached to the west interior wall of the on-site building. Therefore, there is potential for a UST(s) to exist on the property and said tank may have impacted the soil, groundwater, and/or vapor at the Subject Property.

2. The remains of three in-ground hydraulic lifts and one oil-changing pit were observed in the building. According to the 1931 Sanborn Fire Insurance Map (FIM), the on-site building is labeled as being an auto repair/garage facility. Additionally, based on the age of the building, this time-frame predates the regulation of the storage/disposal of hazardous substances such as used oil and other non-regulated automobile chemicals. Based on the age and duration of use, the in-ground lifts and unknown chemical management and disposal practices associated with historic operations, site soil, groundwater, and/or vapor may have been impacted by historic site operations.

3. During site reconnaissance, Cardno identified a potential vent pipe in the interior of the building along the eastern wall. This could be an indication for a UST and/or heating oil tank to exist on the Subject Property. Based on the age and duration of the former use of the building, there is potential for a UST/heating oil tank on the property that may have impacted the soil, groundwater, and/or vapor at the Subject Property.

Off-Site RECs

4. According to the 1931 Sanborn FIM, a Printing facility is located approximately 80 feet to the east. The length of operation for this facility is unknown. There is potential for a release from this facility.

5. According to the 1931 Sanborn FIM, a Cleaning facility is located approximately 120 feet to the southeast. The length of operation for this facility is unknown. There is a potential for a historic release from this facility.

Off-site HRECs

1. According to Oregon Department of Environmental Quality (ODEQ) records, the former Chiloquin Texaco, located west and approximately 45 feet away, indicate that four USTs were installed pre-1989 which predates UST registration. These tanks were removed from the property in July 1994, and three new registered gasoline USTs were installed in the UST tank excavation in August 1994. The

new tanks were subsequently removed in 2017. Post-excavation confirmation sampling conducted in 2017 and soil sampling conducted in June 2018 indicate that the residual petroleum in soil are low. On July 22, 2019, ODEQ granted an NFA determination letter for the Chiloquin Texaco site. Based on the issuance of an NFA, and given the assumed ground waterflow direction away from the subject site, this facility is considered a historical REC. See Section 5.1 for further details.

Asbestos-Containing Materials

Asbestos containing materials (ACMs) were identified throughout the interior of the building including:

- Interior white skim coat on plaster surfacing, totaling approximately 3,600 square feet (SF), located within the western most portions of the on-site building.
- Interior white texture and joint compound on drywall, totaling approximately 1000 SF, located within the western most portions of the on-site building.
- Interior white caulk, totaling approximately 50 linear feet (LF), located on interior west wall windows.

Overall, given the state of the buildings, most of these materials were in good to fair condition. Therefore, the identified ACM has a low probability of disturbance during ordinary use. Prior to any renovation or demolition that may cause the ACM to become friable, the material should be removed or abated by a qualified asbestos abatement contractor.

The following suspect building materials were not sampled and should be considered presumed asbestos containing materials (PACM):

- Exterior building debris from former attached north addition, totaling approximately 650 cubic yards (CY).

The building to the north was constructed around the same time as the remaining building, and the building debris appeared to have suspect materials. Therefore, the building debris/rubble should be considered asbestos containing until sampling by a licensed asbestos inspector indicates otherwise.

Lead-Based Paint

Lead-based paint (LBP) was identified on various painted surfaces throughout the interior and exterior of the building in various tenant spaces including:

- Red paint on exterior concrete masonry unit (CMU), totaling approximately 3,600 SF, located on the exterior east, south, and west walls.
- Tan/gray paint on interior ceiling, totaling approximately 1,200 SF, located on wood board ceiling on the southwest corner of the building.

Most of the identified painted surfaces were in poor condition, with peeling and deterioration noted. As the building is not considered to be child-occupied facility, the identified LBP can be left intact unless disturbed during renovation or demolition.

A more detailed summary of the ACM and LBP inspection will be provided under a separate cover and included as **Appendix H**.

Please note: This is a cursory summary of findings. The full report must be read in its entirety for a comprehensive understanding of the stated conclusions/recommendations

2 Introduction

2.1 Purpose

The purpose of this Phase I ESA was to identify RECs in connection with the property at the time of the site reconnaissance. The scope of work for this Phase I ESA may also include certain potential environmental conditions beyond the scope of *ASTM Standard Practice E1527-13*. This report documents our assessment, conclusions, and recommendations.

2.2 Detailed Scope of Services

This Phase I ESA was conducted in general accordance with the *ASTM Standard Practice E1527-13*, consistent with a level of care and skill ordinarily practiced by the environmental consulting profession currently providing similar services under similar circumstances. Significant additions, deletions or exceptions to *ASTM Standard Practice E1527-13* are noted below and detailed in the corresponding sections of this report. The scope of this assessment included following evaluations:

- Assessment of the physical characteristics of the property through a review of referenced sources such as available topographic maps and geologic, soils, and hydrogeological reports.
- Review of the Subject Property, adjoining properties, and surrounding area via referenced historical sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports, and interviews.
- Site observation and interviews with knowledgeable persons regarding the current property usage and conditions including: use, treatment, storage, disposal, or generation of hazardous substances/waste, petroleum products, nonhazardous solid wastes, and wastewater.
- Assessment of the use and condition of adjoining and surrounding properties and their likely impact on the Subject Property from known or suspected releases of hazardous substances or petroleum products.
- Review of information in referenced environmental agency databases and local environmental records from within the specified minimum search distances from the property.
- Assessment of the potential for subsurface vapor encroachment.
- Asbestos and Lead-Based Paint (LBP) sampling to identify asbestos-containing building materials (ACM) or LBP.

No additional investigations, work, or other quantitative/qualitative testing was performed as part of this assessment that was not required by the *ASTM Standard Practices E1527-13*. An example of non-scope investigations includes, but are not limited to, the following: Radon, Lead in Drinking Water, Wetlands, Regulatory Compliance, Cultural and Historic Resources, Industrial Hygiene, Health and Safety, Geotechnical Evaluation, Sinkhole Evaluation, Ecological Resources, Endangered Species, Indoor Air Quality, Vapor Intrusion, Biological Agents, and Mold.

2.3 Significant Assumptions

While this report provides an overview of potential past and present environmental concerns, the environmental assessment is limited by the availability of information at the time of the assessment. It

is possible that unreported disposal of waste or illegal activities impairing the environmental status of the property may have occurred which could not be identified.

The findings and recommendations regarding environmental conditions that are presented in this report are based on the scope of work authorized by the Client. It should be noted, that no matter how exhaustive an assessment might be, there still exists the potential for unidentified environmental conditions above or below ground. Cardno also assumes that the Client and other interested parties will read this report in its entirety.

2.4 Limitations, Exceptions, Deviations and/or Data Gaps

Cardno has prepared this Phase I ESA report using reasonable efforts to identify RECs associated with hazardous substances or petroleum products at the Site. Findings contained within this report are based on information collected from observations made during the site reconnaissance on October 6, 2020 and reasonably ascertainable information obtained from public agencies and other referenced sources.

The *ASTM Standard Practice E1527-13* recognizes inherent limitations for Phase I ESAs, including, but not limited to:

- *Uncertainty Not Eliminated* – A Phase I ESA cannot completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with any property.
- *Not Exhaustive* – A Phase I ESA is not an exhaustive investigation of the property and environmental conditions on such property.
- *Past Uses of the Property* – Phase I requirements only require review of standard historical sources at five-year intervals. Therefore, past uses of property at less than five-year intervals may not be discovered.

Users of this report may refer to *ASTM Standard Practice E1527-13* for further information regarding these and other limitations. This report is not definitive and should not be assumed to be a complete and/or specific definition of all conditions above or below grade. Current subsurface conditions may differ from the conditions determined by surface observations, interviews, and reviews of historical sources. The most reliable method of evaluating subsurface conditions is through intrusive techniques, which are beyond the scope of this report. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other property construction purposes. Any use of this report by any party, beyond the scope and intent of the original parties, shall be at the sole risk and expense of such user.

Cardno makes no representation or warranty that the past or current operations at the property are, or have been, in compliance with all applicable Federal, State, and local laws, regulations, and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations, conditions, and locations not investigated. Regardless of the findings stated in this report, Cardno is not responsible for consequences or conditions arising from facts not fully disclosed to Cardno during the assessment.

An independent data research company provided the government agency database referenced in this report. Information on surrounding area properties was requested for approximate minimum search distances and is assumed to be correct and complete unless obviously contradicted by Cardno's observations or other credible referenced sources reviewed during the assessment. Cardno shall not

be liable for any such database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain or produce accurate or complete records.

Cardno makes no warranty, guarantee or certification regarding the quality, accuracy, or reliability of any prior report provided to Cardno and discussed in this Phase I ESA report. Cardno expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to Cardno and discussed in this Phase I ESA report.

Cardno used reasonable efforts to identify evidence of aboveground and underground storage tanks and ancillary equipment on the property during the assessment. "Reasonable efforts" were limited to observation of accessible areas, review of referenced public records, and interviews. These reasonable efforts may not identify subsurface equipment or evidence hidden from view by things including, but not limited to, vegetation, paving, construction activities, stored materials, and landscaping.

Any estimates of costs or quantities in this report are approximations for commercial real estate transaction due diligence purposes and are based on the findings, opinions and conclusions of this assessment, which are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations and other factors associated with performing the Phase I ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report. The estimated costs or quantities in this report are not intended to be used for financial disclosure related to the *Financial Accounting Standards Board (FASB) Statement No. 143, FASB Interpretation No. 47, Sarbanes/Oxley Act* or any United States Securities and Exchange Commission reporting obligations, and may not be used for such purposes in any form without the express written permission of Cardno.

Cardno did not act as a professional title insurance or land surveyor firm as part of this investigation, and makes no guarantee, express or implied, that any land title records acquired or reviewed in this report, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

The Environmental Professional statement in Section 1.1 of this report does not "certify" the findings contained in this report and is not a legal opinion of such Environmental Professional. The statement is intended to document Cardno's opinion that an individual meeting the qualifications of an Environmental Professional was involved in the performance of the assessment and that the activities performed by, or under the supervision of, the Environmental Professional were performed in conformance with the standards and practices set forth in 40 CFR Part 312 per the methodology in *ASTM Standard Practice E1527-13* and the scope of work for this assessment.

Per *ASTM Standard Practice E1527-13, Section 6, User Responsibilities*, the User of this assessment has specific obligations for performing tasks during this assessment that will help identify the possibility of recognized environmental conditions in connection with the property. Failure by the User to fully comply with the requirements may impact their ability to use this report to help qualify for Landowner Liability Protections (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Cardno makes no representations or warranties regarding a User's qualification for protection under any Federal, State or local laws, rules or regulations.

In accordance with the *ASTM Standard Practice E1527-13*, this report is presumed to be valid for a six-month period. If the report is older than six months, the following information must be updated in order for the report to be valid: (1) regulatory review, (2) site visit, (3) interviews, (4) specialized knowledge and (5) environmental liens search. Reports older than one year may not meet *the ASTM Standard Practice E1527-13* and therefore, the entire report must be updated to reflect current conditions and property-specific information

No data gaps were identified during this Phase I investigation.

2.5 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by the City of Chiloquin, as well as any of their affiliates, respective successors, and assigns, in connection with a commercial real estate transaction involving the property, and in accordance with the terms and conditions in place between Cardno and the Client for this project. Any third party agrees by accepting this report that any use or reliance on this report shall be limited by the exceptions and limitations in this report, and with the acknowledgment that actual site conditions may change with time, and that hidden conditions may exist at the property that were not discovered within the authorized scope of the assessment. Any use by or distribution of this report to third parties, without the express written consent of Cardno is at the sole risk and expense of such third party.

Cardno makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied.

3 Site Description

3.1 Location and Legal Description

The Subject Site is comprised of two tax parcels , currently owned by the Klamath County, located at the center of downtown Chiloquin, Oregon as shown on **Figures 2 and 3**. The Subject Property is bound by a commercial facility to the north, undeveloped/vacant land to the northeast, multi-commercial facility to the east, Sky Lakes Wilderness Adventures and Klamath Tribal Courts & Child Support Enforcement Office to the southeast, the Hirvi building to the south, a former gas station to the west, and the former Union Oil Bulk Plant property to the northwest. According to the Klamath County Tax Assessor's website, the Site encompasses two parcels totaling approximately 0.55 acres. The Subject Property currently is developed with a single-story commercial building of concrete block and brick facade construction. A second building which was once occupied by the Chiloquin Mercantile that collapsed and was demolished with the exception of a vault. The associated rubble remains on-site. The building is currently vacant and in the care of Klamath County.

3.2 Surrounding Area General Characteristics

The Subject Property is located in a mixed commercial and residential use area in downtown Chiloquin, Oregon. The surrounding areas to the north, east, west, and south are commercially developed. A surrounding land use map is included as **Figure 4**.

3.3 Current Use of the Property

At the time this report was developed, the Subject Property was vacant.

Approximate Size of Property	0.55 acre
General Topography of Property	The majority of the Subject Site is relatively flat, sloping slightly west/southwest towards the Williamson River.
Adjoining and/or Ingress/Egress Roads	The ingress points for the Subject Property observed via North 1st Avenue and West Chocktoot Street
Paved Areas	There are no paved areas on the Subject Property.
Unimproved Areas	There are no unimproved areas on the Subject Property.
Landscaped Areas	There are landscaped areas on the north portions of the Subject Property.
Surface Water	None
Potable Water Source	City of Chiloquin
Sanitary Sewer Utility	Available
Electrical Utility	Available
Natural Gas Utility	Available
Current Occupancy Status	Vacant
Unoccupied Buildings/Spaces/Structures	Vacant
Building Name or General Building Description	Former Markwardt Brothers garage and auto sales ; currently vacant. The remains of an adjacent collapsed/demolished building are located to the north
Number of Floors	One with partial mezzanine/loft
Approximate Total Square Footage of Structure(s)	Former Markwardt Bros. Garage: 8,500 sq. ft. Vault: 150 sq. ft.

Construction Completion Year	Former Markwardt Bros. Garage: Pre-1931 Vault: Pre-1931

3.4 Current Uses of Adjoining Properties

Direction from Property	Occupant(s) Name	Current Use	Potential REC(s)
South	Hirvi Building	Commercial	None
West	Former Texaco Gas Station	Commercial	HREC #1
Northwest	Vacant	Undeveloped/Vacant	None
North	Vacant	Commercial	None
Northeast	Undeveloped/Vacant	Undeveloped/Vacant	None
East	Vacant Multi-Commercial facility	Vacant Commercial	None
Southeast	Sky Lakes Wilderness Adventures	Commercial	None
Southeast	Klamath Tribal Courts & Child Support Enforcement Office	Municipal	None

4 User Provided Information

4.1 Title Records

A complete title search was not requested by the User (Client, City of Chiloquin) as part of this assessment, nor did the User provide title record information. However, according to information accessed from the Klamath County Tax Assessor, the parcels which make up the Subject Property is currently owned by Klamath County. Ownership of the property was acquired as a tax foreclosure action. No information indicated the exact date of property acquisition; however, Mr. Rick Vaughn stated Klamath County has been associated with the property for two years.

4.2 Environmental Liens or Activity and Use Limitations (AULs)

The User provided no information regarding property environmental liens or activity and use limitations (AULs). However, any liens and AULs associated with the property (if any) are anticipated to be addressed by the End User/Current Site Owner as part of the land/title transaction process.

4.3 Specialized Knowledge

The User provided no specialized knowledge regarding recognized environmental conditions associated with the property, other indicating that the site was used as an auto repair garage at one period of time, and that there may have been underground storage tanks on-site at one time.

4.4 Valuation Reduction for Environmental Issues

The User stated the building may have conducted fueling operations. However, no other information was provided regarding a significant valuation reduction for environmental issues associated with the property **(Appendix B)**.

4.5 Owner, Property Manager, and Occupant Information

The Subject Property is owned by Klamath County. A copy of the AAI interview questionnaire completed by Mr. Rick Vaughn, Tax Collector and Property Manager for Klamath County, is also included in **Appendix B**.

4.6 Reason for Performing Phase I

This assessment was performed to satisfy the requirements of the Client and other interested parties with respect to potential environmental impairment associated with the property due to contamination by hazardous substances, controlled substances, or petroleum products on or near the site. The Subject Site was selected by the City of Chiloquin as a potential location for future residential or mixed-use development, or other public use.

5 Records Review

The purpose of the records review is to obtain and review records that will help identify RECs in connection with the property. Some records reviewed pertain not only to the property, but also to properties within a minimum search distance in order to assess the likelihood of potentially migrating hazardous substances or petroleum products. Unless stated otherwise, the minimum search distances used below were as specified in *ASTM Standard 1527-13*.

5.1 Standard Environmental Record Sources

The regulatory agency database radius report discussed in this section, provided by Environmental Database Resources, Inc. (EDR), was reviewed for information regarding reported use or release of hazardous substances and petroleum products on or near the property. Unless otherwise noted, the information provided by the regulatory agency database report and other sources referenced in this report, were considered sufficient to determine RECs, CRECs, HRECs, or de minimis conditions without conducting supplemental agency file reviews.

Cardno also reviewed the unlocated (orphan) site listings within the database report, cross-referencing available address information and facility names. Unlocated sites are listings that could not be plotted with confidence, but are potentially in the general area of the property, based on the partial street address, city, or zip code. Any unlocated sites within the minimum search distance from the property that was identified by Cardno through site reconnaissance and/or cross-referencing to mapped listings are included in the discussion within this section. The complete regulatory agency database report is provided in **Appendix C.** The following is a summary of the findings of the database review:

Regulatory Database	Minimum Search Distance	Subject Property Listed?	No. of Sites Listed
Federal National Priority List (NPL)	1 mile	No	0
Federal Delisted NPL (DNPL)	½ mile	No	0
Superfund Enterprise Management Systems (SEMS) formerly the Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list	½ mile	No	0
Federal Resource Conservation and Recovery Act (RCRA), Corrective Action facilities (RCRAC)	1 mile	No	0
Federal RCRIS non-CORRACTS Treatment, Storage, and Disposal Facilities (RCRAT)	½ mile	No	0
Federal RCRA Generators (RCRAGR10)	¼ mile	No	0
Federal Engineering Institutional Control Sites (EC)	Property	No	0
Federal Emergency Response Notification System (ERNSOR) list	Property	No	0
Facility Registry System (FRSOR)	Property	No	0
Enforcement and Compliance History Information (ECHOR10)	Property	No	0
RCRA NonGen/NLR (RCRANGR10)	¼ mile	No	2

Regulatory Database	Minimum Search Distance	Subject Property Listed?	No. of Sites Listed
Hazardous Materials Incident Reporting System (HMIRSR10)	Property	No	0
PCB Activity Database System (PADS)	Property	No	0
Alternative Fueling Stations (ALTFUELS)	¼ mile	No	0
State Landfill or Solid Waste Disposal Sites (LFSWDS)	½ mile	No	0
State Leaking Underground Storage Tanks (LST)	½ mile	No	3
Tribal Leaking Underground Storage Tanks (LUSTR10)	½ mile	No	0
Heating Oil Tank Incidents (HOT)	½ mile	No	0
State Registered Underground Storage Tanks (UST)	¼ mile	No	3
State Registered Aboveground Storage Tanks (AST)	¼ mile	No	2
Tribal Registered Underground/Aboveground Storage Tanks (USTR10)	¼ mile	No	0
State Institutional Control/Engineering Control Registry (ICEC)	Property	No	0
State Voluntary Cleanup Sites (VCP)	½ mile	No	3
State Brownfield Sites (Brownfield)	½ mile	No	1
State Drycleaners (Cleaners)	½ mile	No	0
State Environmental Cleanup Site Information Database (ECSI)	½ mile	No	13
HazMat/Incidents (SPILLS)	Property	No	0
Permitted Air Dischargers (AIRS)	Property	No	0
Environmental Response Program Spills (RSPILLS)	Property	No	0

Thirty-six (36) database records were noted and located within a 1-mile radius of the target area by the database search. There are fewer sites than records as a particular site may appear on more than one environmental database. Several of the listed facilities may represent a REC/CREC/HREC environmental concern due to distance, anticipated direction of groundwater flow, and/or anticipated risk of contamination. Further details regarding the Subject Property and sites listed on the Environmental Database Resources database within 0.25 mile of the Subject Property are provided below.

- **Chiloquin Texaco (HREC #1)**

  Location: Northwest of the North 1st Avenue and West Chocktoot Street intersection
  Located approximately 45 feet west and topographically downgradient of the Subject Property

Summary: The Chiloquin Texaco property is listed in the EDR radius report as an Underground Storage Tank (UST), Leaking Underground Storage Tank (LUST), Facility Index System/Facility Registry System (FINDS), Brownfields, and EDR Historic auto repair (EDR HIST AUTO) database. Cardno reviewed Stantec's Independent Cleanup Pathway Final Report dated April 18, 2019 of the former service station. Oregon Department of Environmental Quality (ODEQ) records indicated that four USTs were removed from the property in July 1994, and three new registered gasoline USTs were installed in the UST tank excavation in August 1994. This facility utilized one 2,000-gallon; one 4,000-gallon; and one 6,000-gallon USTs. ODEQ records indicate that the 2,000-gallon UST was converted from storing "super" grade gasoline to storing diesel in 2003.

In July 1994, two 550-gallon gasoline USTs, one 1,000-gallon gasoline UST, and one 2,000-gallon gasoline UST were removed from the ground. Approximately 40 cubic yards of concrete and impacted soil were removed from the tank excavation. Two soil samples were collected at the bottom of the tank excavation area and detected gasoline-range hydrocarbons ranging from 28 to 860 milligrams per kilogram (mg/kg). Approximately 360 gallons of groundwater was pumped from the tank excavation into 55-gallon drums from July 13-25, 1994. Four groundwater samples were collected from the purged groundwater and submitted for benzene, toluene, ethylbenzene, and total xylenes (BTEX). The maximum BTEX constituent concentration detected was total xylenes at 15 milligrams per liter (mg/l). The property owner reported a release from the USTs to ODEQ in July 1994.

In 2017, Stantec oversaw the removal of one 6,000-gallon gasoline UST and a 6,000-gallon compound UST comprised of a 4,000-gallon gasoline UST compartment and a 2,000-gallon diesel UST compartment. Subsequently, Stantec installed six soil borings adjacent to the tank excavation area to approximately 15 feet below ground surface (ft bgs) and converted the borings to temporary groundwater monitoring wells. Soil samples were collected from the tank excavation area and from the installed soil borings. The highest TPH-Gx concentrations were detected in the southern and western excavation sidewalls ranging from 28.6 mg/kg to 4,200 mg/kg. Soil samples analyzed from soil borings detected TPH-Gx in three soil samples with concentrations ranging from 33.9 mg/kg to 2,780 mg/kg. In boring GP-1, located in the North 1st Avenue right-of-way upgradient from the UST excavation, TPH-Gx was detected at 33.9 mg/kg at 1 ft bgs. In 2018, groundwater samples were collected and TPH-Gx concentrations were below 1 mg/l with the exception of one sample where TPH-Gx was detected at 14 mg/l that was located downgradient (northwest) of the tank excavation area. Post-excavation confirmation sampling conducted in 2017, and soil sampling conducted in June 2018 indicate that the residual petroleum in soil are low.

On July 22, 2019, ODEQ granted a no further action (NFA) determination letter for the Chiloquin Texaco. Based on the issuance of an NFA, and the documented groundwater flow direction to the northwest, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Chiloquin Standard Oil Bulk Plant**

Location: Chocktoot Street
Located approximately 315 feet southwest and topographically crossgradient of the Subject Property

Summary: The facility is listed in the following EDR database records: Environmental Cleanup Site Information System (ECSI), Voluntary Cleanup Program (VCP), Brownfields, and FINDS databases. According to the Environmental Database Resources database report, this site was reportedly occupied by a series of bulk plant operators from 1984 through 2005. ODEQ records show that four gasoline USTs and one diesel UST were removed from the site in 1991. In January 2006, 38 test pits were excavated to a depth of approximately 4 ft bgs to evaluate potential impacts to soil. Soil samples from each test pit were analyzed for gasoline, diesel, and heavy oil-range petroleum hydrocarbons, volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and total lead. Benzene was the only constituent found in soil at concentrations exceeding applicable risk screening levels.

In 1993, four groundwater monitoring wells were installed and in September 2008, three additional wells were installed. Groundwater sampling events occurred intermittently from 1993 to 2011. Groundwater analytical data indicated no constituents were detected in groundwater above applicable ODEQ human health risk screening criteria and impacts on ecological receptors are not significant. From these seven groundwater monitoring wells, potentiometric surface data indicate groundwater flow is towards the Williamson River to the northwest.

According to the EDR radius report, ODEQ records indicate that the proposed remedial action was conducted between August and October 2012. Based on confirmation sampling and since residual contamination does not exceed acceptable risk levels, ODEQ issued an NFA determination letter on January 28, 2013. Based on the NFA issuance and groundwater flow direction, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Modoc Motors**

Location: 0 Chocktoot Street
Located approximately 425 feet northwest and topographically downgradient of the Subject Property

Summary: The facility is listed in the EDR database as an ECSI facility. According to the Environmental Database Resources database report, ODEQ added this site to the ECSI database for tracking as a former auto repair facility in August 2010. However, no violations or releases have been reported for this facility. Based on the distance, lack of documented releases, and inferred groundwater flow direction, this facility does not appear to have impacted the Subject Property.

- **Chiloquin Cleaning & Pressing (REC #4)**

Location: Southwest corner of West Chocktoot Street and South 2nd Avenue
Located approximately 115 feet southeast and topographically upgradient of the Subject Property (See **Figure 5**)

Summary: The facility is listed in the EDR database as an ECSI and FINDs facility. According to the Environmental Database Resources database report, ODEQ added this site to the ECSI database for tracking as a former dry-cleaning facility in

November 2001. No information indicated the duration of operation; however, the age of this facility pre-dates chlorinated solvents and likely handled Stoddard solvents. Based on the distance and inferred groundwater flow direction, this facility may have impacted the Subject Property.

- **Telephone Utilities of Eastern Oregon**

  Location: Southwest corner of South 2nd Avenue and East Yahooskin Street
  Located approximately 120 feet northeast and topographically crossgradient of the Subject Property

  Summary: The facility is listed in the EDR database as an UST facility. According to the Environmental Database Resources database report, this facility utilized one UST of unknown size and contents that was reportedly decommissioned. Cardno reviewed ODEQ's list of registered tanks but information for this facility was not ascertainable. Based on the lack of reported releases and inferred groundwater flow direction, this facility it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Chiloquin Agency Lake Fire District**

  Location: 156 South 2nd Avenue
  Located approximately 445 feet south and topographically crossgradient of the Subject Property

  Summary: The facility is listed in the EDR database as an AST and Hazardous Substance Information Survey (HSIS) facility. According to the Environmental Database Resources database report, this facility utilizes one AST cylinder of nitrogen of unknown size. However, there are reported releases or violations. Based on the lack of reported releases, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Tony Reyes**

  Location: 123 South 3rd Street
  Located approximately 450 feet south and topographically crossgradient of the Subject Property

  Summary: The facility is listed in the EDR database as a Resource Conservation and Recovery Act – Non-Generator / No Longer Regulated (RCRA NonGen/NLR) facility. According to the Environmental Database Resources database report, this facility is no longer a RCRA generator and no other information is provided. Based on the lack of reported releases, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Klamath County School District**

  Location: 131 South 3rd Street
  Located approximately 615 feet southeast and topographically crossgradient of the Subject Property

  Summary: The facility is listed in the EDR database as an AST and Hazardous Substance Information Survey (HSIS) facility. According to the Environmental Database Resources database report, this facility utilizes one AST of propane of unknown size. However, there are reported releases or violations. Based on the lack of reported releases, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Wampler Logging**

  Location: 212 North Klamath Avenue
  Located approximately 620 feet northwest and topographically downgradient of the Subject Property

  Summary: The facility is listed in the EDR database as an ECSI and FINDs facility. According to the Environmental Database Resources database report, ODEQ added this site to the ECSI database for tracking as an active logging facility in November 2006. Additionally, Environmental Database Resources database reports this facility is no longer a RCRA generator and no other information is provided. Based on the lack of reported releases, this facility does not appear to have impacted the Subject Property. Based on the distance and inferred groundwater flow direction, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Chocktoot Street Petroleum Releases**

  Location: 0 Chocktoot Street (East of bridge)
  Located approximately 785 feet northwest and topographically downgradient of the Subject Property

  Summary: The facility is listed in the EDR database as an ECSI facility. According to the Environmental Database Resources database report, ODEQ discovered petroleum contamination while sampling for a street project in August 2010. However, based on distance and assumed groundwater flow direction, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

- **Clyde's Fairway Market**

  Location: 323 Chocktoot Street
  Located approximately 1,170 feet northwest and topographically downgradient of the Subject Property

  Summary: The facility is listed in the EDR database as an ECSI facility. According to the Environmental Database Resources database report, ODEQ added this site to the ECSI database for tracking as a former service station facility in March 2004. However, based on distance and groundwater flow direction, it is not likely that this facility has impacted the environmental integrity of the Subject Property.

Additional sites were identified between 0.25 and ½ mile in the Environmental Database Resources database records search. However, based upon distance, intervening topographic gradient, proximity to the river, and regulatory information provided, these facilities are not considered potential environmental concerns with respect to the Subject Site. Based on a review of the database and windshield survey of the are there are no off-site RECs associated with the property.

5.2 Physical Setting Sources

An EDR Physical Setting Map report is included in **Appendix C.** According to this report, surficial soil at the Site is Lobert sandy loam. Additionally, the Site is underlain by Pliocene fluvial sedimentary deposits.

The Site is located on the Chiloquin, OR 2014 USGS 7.5-minute series topographic map. The topography at the Subject Property slopes gently to the west. Elevation at the Site is approximately 4,195 – 4,200 feet above mean sea level (MSL). Based on the mapped topography of the site, the

inferred primary direction of groundwater flow for the vicinity of the Subject Site is anticipated to be generally northwest towards the Williamson River. However, it is feasible that localized variations in ground water flow may exist, and a site-specific determination would be required to verify ground water flow direction.

5.3 Historical Records Sources

5.3.1 Aerial Photographs, Topographic Maps, and Sanborn Fire Insurance Maps

The objective of consulting historical sources is to determine the likelihood of past uses having led to recognized environmental conditions in connection with the Subject Site. A review was conducted of historical aerial photographs (**Appendix D)** and topographic maps (**Appendix E**) obtained from Environmental Database Resources.

Additionally, Sanborn Fire Insurance Maps (FIMs) have been produced since the late 1800s to provide information relative to fire hazards on insurable property. These maps often indicate locations of underground and aboveground gasoline tanks, storage facilities for flammable and hazardous chemicals, such as dry cleaners, paint shops, maintenance and garage facilities, as well as historical information on occupants of buildings, unavailable through other sources. Production of these maps typically was limited to the immediate vicinity of downtown urban areas. The detailed EDR Sanborn FIMs report is included in **Appendix F**. Findings of review of the historical Sanborn Fire Insurance Maps are chronologically summarized in the following table.

Findings of review of the historical aerial photos, topographic maps, and Sanborn FIMs are chronologically summarized in the following table:

Period	Source(s)	Identified Historical Uses		Comments
		Subject Property	Surrounding Area	
1931	Sanborn FIM **(Figure 5)**	A **large auto repair/garage building** is depicted on the Subject Property. An area at the southwest corner within the auto repair building is labeled **"Gas & Oil".** A building addition is connected to the auto repair building to the north. Additionally, a building is depicted on the northern portion and labeled "Rooms" on the Subject Property.	A **Printing facility** is located to the east. A **Cleaning facility** is located to the southeast. The S.P.CO. Railroad is located west of the Subject Property. A Shell Oil Co. facility with one steel oil tank and oil warehouse is located to the west. An auto repair garage is located to the southwest.	The "Gas & Oil" (**REC #1**) and auto repair/garage (**REC #2**) at the on-site building are RECs. The Printing facility (**REC # 4**) and the Cleaning facility (**REC #5**) are considered RECs based on the review of the Sanborn Map.
1953	Aerial Photograph	A commercial building appears on the Subject Property.	Commercial buildings are to the south and west. Residential buildings are in the surrounding area. A railroad and river appear to the west.	No additional RECs noted.

Period	Source(s)	Identified Historical Uses		Comments
		Subject Property	Surrounding Area	
1955	Aerial Photograph	Blurry; similar to previous aerial photograph.	Blurry; similar to previous aerial photograph.	No additional RECs noted.
1957	Topographic Map	A building is depicted on the Subject Property	Several commercial buildings and residential dwellings appear in the surrounding area. A railroad and river appear to the west. A water tower is located to the east.	No additional RECs noted.
1975	Aerial Photograph	Similar to previous aerial photograph.	Several commercial buildings appear to have been removed to the southeast. A commercial building appears at the north adjoining property.	No additional RECs noted.
1982	Aerial Photograph	Similar to previous aerial photograph.	Additional commercial development appears to the south.	No additional RECs noted
1994	Aerial Photograph	Similar to previous aerial photograph.	Additional commercial development appears to the northeast and east. A **gas station** appears to the west.	The off-site gas station is a HREC (**HREC #1**)
1998	Topographic Map	Similar to previous aerial photograph.	More residential and commercial structures in the surrounding area. The Chiloquin Airfield is depicted to the west.	No additional RECs noted.
2000	Aerial Photograph	Similar to previous aerial photograph.	Additional commercial development appears to the west.	No additional RECs noted.
2006	Aerial Photograph	Similar to previous aerial photograph.	Additional commercial development appears in the surrounding area.	No additional RECs noted.
2009	Aerial Photograph	Similar to previous aerial photograph.	Land clearing is visible to the northeast and south.	No additional RECs noted.
2012	Aerial Photograph	Similar to previous aerial photograph.	Similar to previous aerial photograph.	No additional RECs noted.
2014	Aerial Photograph	Similar to previous topographic map. The on-site structure is depicted.	Similar to previous topographic map. No structures are depicted on the map.	No additional RECs noted.
2016	Aerial Photograph	Similar to previous aerial photograph.	Similar to previous aerial photograph.	No additional RECs noted.

Note: Text in **bold** are environmental concerns and are further discussed below.

REC#1: According to the 1931 Sanborn FIM (**Figure 5**), the building is an auto repair/garage and an area within the on-site building, at the southwest corner, is labeled “Gas & Oil”. Therefore, there is

potential for a UST(s) to exist on the property and said tank may have impacted the soil, groundwater, and/or vapor at the Subject Property.

REC #2: The on-site building operated as an auto repair facility from the 1930s to the 1960s. This time-frame predates the regulations of storage/disposal of hazardous substances such as used oil and other non-regulated automobile chemicals. Therefore, there is potential for release of hazardous materials in the soil and groundwater at the Subject Property.

REC #4: According to the 1931 Sanborn FIM (**Figure 5**), a Printing facility is located approximately 80 feet to the east. The length of operation for this facility is unknown. There is potential for a release from this facility.

REC #5: According to the 1931 Sanborn FIM (**Figure 5**), a Cleaning facility is located approximately 120 feet to the southeast. The length of operation for this facility is unknown. There is a potential for a release from this facility.

HREC #1: According to Oregon Department of Environmental Quality (ODEQ) records, the former Chiloquin Texaco, located west and approximately 45 feet away, indicate that four USTs were installed pre-1989, predates UST registration, and were removed from the property in July 1994, and three new registered gasoline USTs were installed in the UST tank excavation in August 1994. Soil and groundwater samples were collected from within and adjacent to the tank excavation area. Analytical results indicated BTEX constituent concentrations were above applicable risk screening levels. However, post-excavation confirmation sampling conducted in 2017 and soil sampling conducted in June 2018 indicate that the residual petroleum in soil are low. On July 22, 2019, ODEQ granted an NFA determination letter for the Chiloquin Texaco. Based on the issuance of an NFA, this facility is considered a historical REC. See Section 5.1 for further details.

5.3.2 City Directories

Historical City directories are generally referenced for study areas to help identify changes in land use based on the type of businesses that occupied the Subject Site and surrounding area. The type of business, such as automotive, dry cleaning, gasoline/service stations, etc. are indicative of the possible presence of hazardous substances or petroleum products. The detailed City Directories reports are included in **Appendix G**. No Historical City Directories were available for the Subject Property and surrounding area prior to 1992.

Period	City Directory Identified Historical Uses		Comments
	Subject Property	Surrounding Area	
1992	No Listing	E. Yahooskin St.: Residential N. 1st Ave.: Residential	No RECs noted.
1995	No Listing	119 E. Yahooskin St.: Chiloquin Head Start 220 W. Chocktoot St.: Paul's Automotive Service 119 W. Chocktoot St.: Beas Antiques & Refinishing 323 W. Chocktoot St.: Clyde's Fairway Market	No RECs noted.
2000	No Listing	210 S. 1st Ave.: Chiloquin Alternative Education Center 216 S. 1st Ave.: Chiloquin Branch Library 219 N. 1st Ave.: Chiloquin Awareness Committee Hoops Activity Center	No RECs noted.
2005	No Listing	228 S. 1st Ave.: United States Postal Service	No RECs noted.

Period	City Directory Identified Historical Uses		Comments
	Subject Property	Surrounding Area	
2010	No Listing	S. 1st Ave.: Chiloquin Community Correction 414 W. Chocktoot St.: Oregon Reflections	No RECs noted.
2014	No Listing	118 W. Chocktoot St.: Klamath Tribal Court **201 W. Chocktoot St.: Chiloquin Shell & Food Mart** 323 W. Chocktoot St.: Clyde's Fairway Market 127 S. 1st Ave.: Chiloquin Agency Lake Fire District 228 S. 1st Ave.: United States Government 221 N. 1st Ave.: Klamath Water Commission 119 E. Yahooskin St.: Head Start Klamath Tribes	The Chiloquin Shell & Food Mart is a HREC (HREC #1).
2017	No Listing	119 E. Yahooskin St.: Klamath Tribes 221 N. 1st Ave.: Klamath Water Commission 323 W. Chocktoot St.: Fairway Market 127 S. 1st Ave.: Chiloquin Agency Lake Fire District 140 S. 1st Ave.: Community Correction Chiloquin Office	No additional RECs noted

Note: Text in **bold** are environmental concerns and are further discussed below.

HREC #1: According to Oregon Department of Environmental Quality (ODEQ) records, the former Chiloquin Texaco, located west and approximately 45 feet away, indicate that four USTs were installed pre-1989, predates UST registration, and were removed from the property in July 1994, and three new registered gasoline USTs were installed in the UST tank excavation in August 1994. Soil and groundwater samples were collected from within and adjacent to the tank excavation area. Analytical results indicated BTEX constituent concentrations were above applicable risk screening levels. However, post-excavation confirmation sampling conducted in 2017 and soil sampling conducted in June 2018 indicate that the residual petroleum in soil are low. On July 22, 2019, ODEQ granted an NFA determination letter for the Chiloquin Texaco. Based on the issuance of an NFA, this facility is considered a historical REC. See Section 5.1 for further details.

5.3.3 Prior Reports

No prior environmental reports were provided for review.

6 Site Reconnaissance

The following is a summary of visual and/or physical observations of the property on the day of the site visit. As stated, the site is comprised one on-site building, building debris remnants of a former building, a vault, and vacant/undeveloped portion of the Subject Property. Representative photographs can be found in **Appendix A**.

6.1 Methodology and Limiting Conditions

Mr. Keith Ziobron, P.E. and Mr. Ashton Smithwick with Cardno conducted the site reconnaissance on April 13 2021. The site reconnaissance consisted of visual and/or physical observations of the property and improvements; adjoining sites as viewed from the property; and, the surrounding area based on visual observations made during the trip to and from the property.

No other limiting conditions were identified during the site reconnaissance, and all exterior and interior areas were inspected.

6.2 Hazardous Substance Use, Storage, and Disposal

Cardno did not observe any substance use, storage, or disposal at the Subject Property. However, between approximately 1930 to the 1960s, this facility was occupied by an auto repair garage and this time-frame predates regulations set forth by state regulations of the disposal of hazardous substances and other non-regulated chemicals. Therefore, improper storage and disposal practices may have occurred on the Subject Property (**REC #2**).

6.3 Underground Storage Tanks (USTs)

Cardno did not observe any USTs. However, Cardno identified a vent pipe attached to the west exterior wall of the on-site building (**REC #1**). Cardno believes this to be a ventilation pipe for an UST(s) on the Subject Property (See Photo 9). According to the 1931 Sanborn FIM, there is an area within the southwest corner labeled “Gas & Oil” which could be an indication for an on-site UST(s). Further, Cardno observed a potential vent pipe along the interior of the east wall. This vent pipe is a potential indicator for an on-site buried UST or heating oil tank (**REC #3**).

6.4 Aboveground Storage Tanks (ASTs)

Cardno did not observe any ASTs.

6.5 Other Petroleum Products

Cardno did not observe any other petroleum products.

6.6 Polychlorinated Biphenyls (PCBs)

Cardno observed the remains of three in-ground hydraulic lifts and one oil-changing pit within the on-site building (**REC #2**). No other information was provided regarding the lifts or oil-changing pit. Based on its potential to contain PCBs and/or other hydraulic fluids, it has potential to impact the soil, groundwater, and/or vapor at the Subject Property.

6.7 Unidentified Substance Containers

Cardno did not observe any unidentified substance containers.

6.8 Nonhazardous Solid Waste

Cardno observed a significant pile of wood chips within the on-site building. According to Mr. Charlie Case of the City of Chiloquin Public Works Department, the on-site building was utilized prior to 2000 for manufacturing wooden boxes and wood smoking chips for grills/barbeques. The leftover wooden chips are the remains of the Juniper wood products business.

Additionally, significant quantities of building debris are located along the north exterior wall from the previous building attachment. These materials have potential for asbestos-containing materials (ACM) and lead-based paint (LBP). Cardno estimates there is approximately 650 cubic yards of building debris that remains on the Subject Property. See Photos 2 for a general representation of site conditions.

6.9 Wastewater

Cardno did not observe evidence of wastewater generation at the Subject Property.

6.10 Waste Pits, Ponds and Lagoons

Cardno did not observe any pits, ponds, or lagoons on the Subject Property.

6.11 Drains and Sumps

Cardno did not observe any drains or sumps on the Subject Property.

6.12 Septic Systems

Cardno did not observe evidence of septic tank usage on the Subject Property.

6.13 Storm Water Management System

Cardno observed a stormwater drain near the southeast corner of the on-site building on West Chocktoot Street.

6.14 Wells

Cardno did not observe any monitoring or active drinking wells on the Subject Property.

7 Subsurface Vapor Migration

Hazardous gases (vapor) from subsurface sources, such as contaminated soil or groundwater can migrate into residential, commercial, and industrial buildings with any foundation type, including basements, crawlspaces, or slabs. According to EPA guidance, three conditions must exist for hazardous vapors to reach the interior of buildings from the subsurface environment underneath or near a building. First, a source of hazardous vapors must be present in the soil or in groundwater underneath or near a building. Second, vapors must form and have a pathway along which to migrate toward the building. Third, entry routes must exist for the vapors to enter the building, and driving forces must exist to draw the vapors into the building.

Cardno considered the nature and extent of on-site sources of potential subsurface vapor migration by evaluating the current and historical usage of the property, the construction type and history, the physical setting, and the potential sources of subsurface vapor migration through the review of regulatory agency database information that was summarized in Section 5.0.

Based on the evaluation of the known or suspected releases of hazardous substances or petroleum products, their distance from the property, all potential pathways separated by roads with underground utilities, and soil type, et al, are not determined to impact the Subject Property with the exception of the following:

- **REC#1** – Former on-site automobile fueling;
- **REC #2** – On-site auto repair garage operations;
- **REC #3** – Potential on-site UST or heating oil tank
- **REC #4** – Off-site printing; and
- **REC #5** – Off-site dry-cleaning

8 Interviews

Cardno obtained completed interview questionnaire from the following persons:

- Rick Vaughn – Tax Collector and Property Manager for Klamath County
- Teresa R. Foreman – City Recorder for the City of Chiloquin
- Charlie Case – City of Chiloquin Public Works
- Fire Chief Michael Cook – Chiloquin Fire & Rescue

The completed All Appropriate Inquiry questionnaires, completed by Mr. Rick Vaughn and Ms. Teresa R. Foreman, are provided in **Appendix B.**

Ms. Teresa Foreman stated there is no purchase price for the property and is owned by Klamath County through tax foreclosure. Ms. Foreman indicated the on-site building was formerly utilized as a car dealership and garage. She also stated she assumes fuel and oil were stored and used as part of the business.

Mr. Rick Vaughn has been associated with the Subject Property for approximately two years. Mr. Vaughn states the property is approximately 0.51-acres and he believes the on-site building is approximately 12,316 sq. ft. He is not aware of the past uses of the property and that Klamath County obtained the property through tax foreclosure.

Mr. Charlie Case indicated the former Markwardt Brothers Garage was in operation from approximately the 1930s to the 1960s; a second-hand store in the 1970s; and Juniper wood products in the 1980s. Mr. Case stated the remains of the wood chips within the on-site building are from the Juniper wood products company that manufactured wooden boxes and wood chips for grills/barbeques. Mr. Case stated the southwest corner of the on-site building was utilized as a fueling stations between the 1930s to the 1950s. He also mentioned the roof of the former building attachment north of the on-site building had completely collapsed and the remainder of the building was demolished around 2015.

Cardno contacted Fire Chief Michael Cook of the Chiloquin Fire & Rescue Department in regards to any fires, spills, and/or incidents. Chief Cook stated there are no records on file for the Subject Property.

9 Additional Scope Items

During the course of this investigation, Cardno completed a comprehensive asbestos inspection on the former Markwardt Brothers Garage as depicted in **Figures 2-3**. A copy of this report will be provided under a separate cover and is included as **Appendix H.**

No other collection or investigation for the purpose of determining the possible presence of radon, mold, and/or any other potential contaminants requiring specialized testing procedures or sampling were conducted during this investigation. No assessment was conducted for the possible presence or absence of wetlands and no determination is offered with regard to the suitability of the subject site for development or for any other specific use or purpose.

Notwithstanding these limitations, the applicability of certain environmental issues which are not covered by ASTM standards are still germane to a wide array of properties. The following is a summary of non-scope issues identified at the property on the day of the site visit.

9.1 Asbestos Containing Materials

The inspection was performed on April 13, 2021 by Mr. Ashton Smithwick, an EPA accredited asbestos inspector, in accordance with the Asbestos Hazardous Emergency Response Act (AHERA) and Asbestos School Hazard Abatement Reauthorization Act (ASHARA).

In accordance with National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 61 Subpart M, paragraph 145, all asbestos containing materials (ACMs) must be identified and removed prior to disturbance, either during a renovation or demolition. ACM is defined by OSHA as materials that contain greater than 1% asbestos fibers.

The asbestos inspection included a visual inspection of all accessible interior and exterior areas of the on-site buildings. This inspection was performed in accordance with AHERA and ASHARA protocols. Cardno made a reasonable attempt to visually identify all suspect materials or homogeneous areas (HAs). The interior and exterior of the buildings were identified, with the exception of the building roof due to the overall unsafe condition. Each HA was visually assessed for condition, friability, and quantity.

During the inspection, Cardno collected twenty-three (23) samples from eight (8) different HAs throughout interior/exterior of the on-site facility. All bulk samples were collected and stored in appropriate sample containers, labeled, and delivered to Eurofins EMLab P&K (EMLab) in Norcross, Georgia. AES analyzed the samples using Polarized Light Microscopy (PLM) via EPA Method 600/R-93/116. This laboratory is accredited by the National Institute of Standards of Technology (NIST), and is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP).

9.1.1 Asbestos Results

The following materials were identified as containing greater than 1% ACM:

- Interior white skim coat on plaster surfacing, totaling approximately 3,600 square feet (SF), located within the western most portions of the on-site building.
- Interior white texture and joint compound on drywall, totaling approximately 1000 SF, located within the western most portions of the on-site building.

- Interior white caulk, totaling approximately 50 linear feet (LF), located on interior west wall windows.

The following materials were not sampled and should be considered PACM:

- Exterior building debris from former attached north addition, totaling approximately 650 CY.

The north building addition was constructed around the same time as the main building, and the building debris appeared to have suspect materials. Therefore, the building debris should be considered asbestos containing until sampling by a licensed asbestos inspector indicates otherwise.

A more detailed summary of the inspection, identified ACM, and diagrams of samples and ACM locations will be provided under separate cover and is included as **Appendix H**. Photos of the identified ACM are included as **Appendix A**.

9.2 Lead-Based Paint

A limited lead-based paint (LBP) inspection was conducted on April 13, 2021 by Cardno's Mr. Ashton Smithwick. All testing was completed in accordance with applicable HUD, state, and federal regulations regarding LBP inspections. No previous LBP sampling information was provided by the client or the property owner.

The LBP testing was performed in general accordance with the inspection protocol in Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing. Painted surfaces were tested by collected paint chips of various painted surfaces throughout the interior and exterior of the buildings. LBP is defined by EPA as containing greater than 0.5% lead in painted materials.

During the inspection, Cardno collected 12 paint chips samples from unique locations throughout the interior/exterior of the on-site buildings.

The paint chip samples were collected into appropriate containers, labeled, and delivered to EMLab in Norcross, Georgia. The laboratory analyzed the samples using flame atomic absorption spectrometry (FAAS) via National Institute for Occupational Safety and Health (NIOSH) Method 7082. This laboratory is accredited by the NIST program, and is recognized under the NVLAP. A copy of the analytical results included the laboratory certification will be provided under a separate cover.

9.2.1 Lead-based Paint Results

In accordance with EPA, any paint containing 0.5% by weight of lead is categorized as containing lead. Based on the paint chip sampling results, the following painted surface tested positive for lead-based paint:

- Red paint on exterior concrete masonry unit (CMU), totaling approximately 3,600 SF, located on the exterior east, south, and west walls.
- Tan/gray paint on interior ceiling, totaling approximately 1,200 SF, located on wood board ceiling on the southwest corner of the building.

A more detailed summary of the inspection, identified LBP, and diagrams of sample LBP locations will be provided under a separate cover and included as **Appendix H**. Photos of the identified LPB is included as **Appendix A**.

9.3 Additional Non-ASTM Considerations

No other collection or any investigation for the purpose of determining the possible presence of radon, mold, and/or any other potential contaminants requiring specialized testing procedures or sampling were conducted during this investigation. No assessment was conducted for the possible presence or absence of wetlands and no determination is offered with regard to the suitability of the subject site for development or for any other specific use or purpose.

10 Findings and Recommendations

Cardno has completed a Phase I Environmental Site Assessment (ESA) of the former Markwardt Brothers Garage property located northeast of the North 1st Avenue and West Chocktoot intersection in downtown Chiloquin, Klamath County, Oregon (**Figure 1**). The property boundary is shown on **Figure 2** and the tax parcel map is provided in **Figure 3**.

Photos of the Subject Property and surrounding properties taken during the site visit are provided in **Appendix A.** The surrounding land use map is provided as **Figure 4**. This assessment was performed under and funded by the City of Chiloquin Business of Oregon Brownfield Grant in general accordance with *40 CFR Part 312 Standards and Practices for All Appropriate Inquiries* and *ASTM Standard Practices E1527-13 for Environmental Site Assessments.*

This assessment was performed to satisfy the requirements of City of Chiloquin (Client) with respect to potential environmental impairment and liabilities associated with the property due to contamination by hazardous substances, controlled substances, or petroleum products on or near the site.

10.1 Findings

Phase I ESA investigations seek to identify known or suspect RECs, HRECs, CRECs, and de minimis conditions. De minimis conditions are those that are judged to not present a material risk of harm to health or the environment.

This assessment has identified several RECs in connection with the Subject Property, as shown in **Figure 5**, consisting of the following:

On-Site REC

1. According to the 1931 Sanborn FIM, the building was used as an auto repair garage and an area with-in the on-site building, at the southwest corner, is labeled “Gas & Oil”. Further, during site reconnaissance, Cardno personnel identified a potential UST vent pipe attached to the west interior wall of the on-site building. Therefore, there is potential for a UST(s) to exist on the property and said tank may have impacted the soil, groundwater, and/or vapor at the Subject Property.

2. The remains of three in-ground hydraulic lifts and one oil-changing pit were observed in the building. According to the 1931 Sanborn Fire Insurance Map (FIM), the on-site building is labeled as being an auto repair/garage facility. Additionally, based on the age of the building, this time-frame predates the regulation of the storage/disposal of hazardous substances such as used oil and other non-regulated automobile chemicals. Based on the age and duration of use, the in-ground lifts and unknown chemical management and disposal practices associated with historic operations, site soil, groundwater, and/or vapor may have been impacted by historic site operations.

3. During site reconnaissance, Cardno identified a potential vent pipe in the interior of the building along the eastern wall. This could be an indication for a UST and/or heating oil tank to exist on the Subject Property. Based on the age and duration of the former use of the building, there is potential for a UST/heating oil tank on the property that may have impacted the soil, groundwater, and/or vapor at the Subject Property.

Off-Site RECs

4. According to the 1931 Sanborn FIM, a Printing facility is located approximately 80 feet to the east. The length of operation for this facility is unknown. There is potential for a release from this facility.

5. According to the 1931 Sanborn FIM, a Cleaning facility is located approximately 120 feet to the southeast. The length of operation for this facility is unknown. There is a potential for a release from this facility.

Off-site HRECs

1. According to Oregon Department of Environmental Quality (ODEQ) records, the former Chiloquin Texaco, located west and approximately 45 feet away, indicate that four USTs were installed pre-1989 which predates UST registration. These tanks were removed from the property in July 1994, and three new registered gasoline USTs were installed in the UST tank excavation in August 1994. The new tanks were subsequently removed in 2017. Post-excavation confirmation sampling conducted in 2017 and soil sampling conducted in June 2018 indicate that the residual petroleum in soil are low. On July 22, 2019, ODEQ granted an NFA determination letter for the Chiloquin Texaco site. Based on the issuance of an NFA, and given the assumed ground waterflow direction away from the subject site, this facility is considered a historical REC.

Asbestos-Containing Materials

Asbestos containing materials (ACMs) were identified throughout the interior of the building including:

- Interior white skim coat on plaster surfacing, totaling approximately 3,600 square feet (SF), located within the western most portions of the on-site building.
- Interior white texture and joint compound on drywall, totaling approximately 1000 SF, located within the western most portions of the on-site building.
- Interior white caulk, totaling approximately 50 linear feet (LF), located on interior west wall windows.

Overall, given the state of the buildings, most of these materials were in good to fair condition. Therefore, the identified ACM has a low probability of disturbance during ordinary use. Prior to any renovation or demolition that may cause the ACM to become friable, the material should be removed or abated by a qualified asbestos abatement contractor. A more detailed summary of the inspection, identified ACM, and diagram of samples and ACM location will be provided under a separate cover and included as **Appendix H**.

The following suspect building materials were not sampled and should be considered presumed asbestos containing materials (PACM):

- Exterior building debris from former attached north addition, totaling approximately 650 cubic yards (CY).

The building to the north was constructed around the same time as the remaining building, and the building debris appeared to have suspect materials. Therefore, the building debris/rubble should be considered asbestos containing until sampling by a licensed asbestos inspector indicates otherwise.

Lead-Based Paint

Lead-based paint (LBP) was identified on various painted surfaces throughout the interior and exterior of the building in various tenant spaces including:

- Red paint on exterior concrete masonry unit (CMU), totaling approximately 3,600 SF, located on the exterior east, south, and west walls.

- Tan/gray paint on interior ceiling, totaling approximately 1,200 SF, located on wood board ceiling on the southwest corner of the building.

Most of the identified painted surfaces were in poor condition, with peeling and deterioration noted. As the buildings are not considered to be child-occupied facilities, the identified LBP can be left intact unless disturbed during renovation or demolition. A more detailed summary of the inspection, identified LBP, and diagram of samples and LBP locations will be provided under a separate cover and included as **Appendix H**.

10.2 Recommendations

Cardno makes the following recommendations:

- A geophysical survey should be performed in the vicinity of the vent pipes in order to determine if USTs are present. If they are found to be present, soil and ground war sampling should be performed adjacent to the tanks.
- Soil boings or test pits should install and soil samples collected and analyzed to evaluate impacts from the identified on and off-site RECs.
- A limited ground water monitoring network should be installed and sampled to evaluate potential ground water impacts and the potential for vapor intrusion.
- The exterior building debris/rubble should be considered PACM and treated as ACM until further sampling by a licensed asbestos inspector indicates otherwise. In addition to ACM testing, the debris should be characterized relate to the potential presence of toxic levels of lead. Finally, After the debris is removed, the need for additional site characterization should be considered.
- Prior to any renovation or demolition that may cause the ACM to become friable, the material should be removed or abated by a qualified asbestos abatement contractor. If the ACM is to be left in place, an Operation and Maintenance (O&M) plan should be implemented regarding the handling of the identified ACM.
- The identified lead-based paint appeared to be overall in fair to poor condition. The on-site building is not considered a child-occupied facility, the identified LBP can be left intact unless disturbed during renovation or demolition. If the LBP is to be disturbed during renovation or demolition, depending on the extent of the disturbance, the LBP can be encapsulated, enclosed, or abated. All activity that disturbs LBP should be conducted by a licensed LBP renovation, repair, or paint (RRP) firm or a qualified LBP abatement contractor.

  If the property is to be renovated or demolished, due to the presence of lead on various painted surfaces, toxicity characteristic leachate procedure (TCLP) analysis for lead should be conducted on any construction debris to determine if the material should be characterized as a hazardous waste prior to disposal.

11 References

EDR. *Radius Report*, Order *Number 6438323.2s*

EDR. *Aerial Photo Decade Package*, Order Number *6438323.8*

EDR. *City Directories,* Order Number *6438323.5*

EDR. *Historical Topographic Maps*, Order Number *6438323.4*

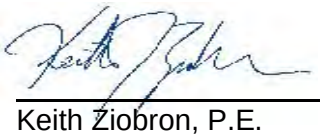
EDR. *Sanborn Fire Insurance Maps,* Order Number *6438323.3*

12 Qualifications/Signatures of Environmental Professional(s)

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312.10. I certify that this report has been prepared in general accordance with 40 CFR Part 312 and ASTM E 1527-13 Standard Practice for Environmental Site Assessments.

I further certify that, in my professional judgment, this report meets the requirements of 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries. I have the specific qualifications based on training, experience and registration to perform and/or assist in the assessment of a property of the nature, history and setting of the Subject Property.

for Cardno



Keith Ziobron, P.E.
Branch Manager

Date: May 17, 2020

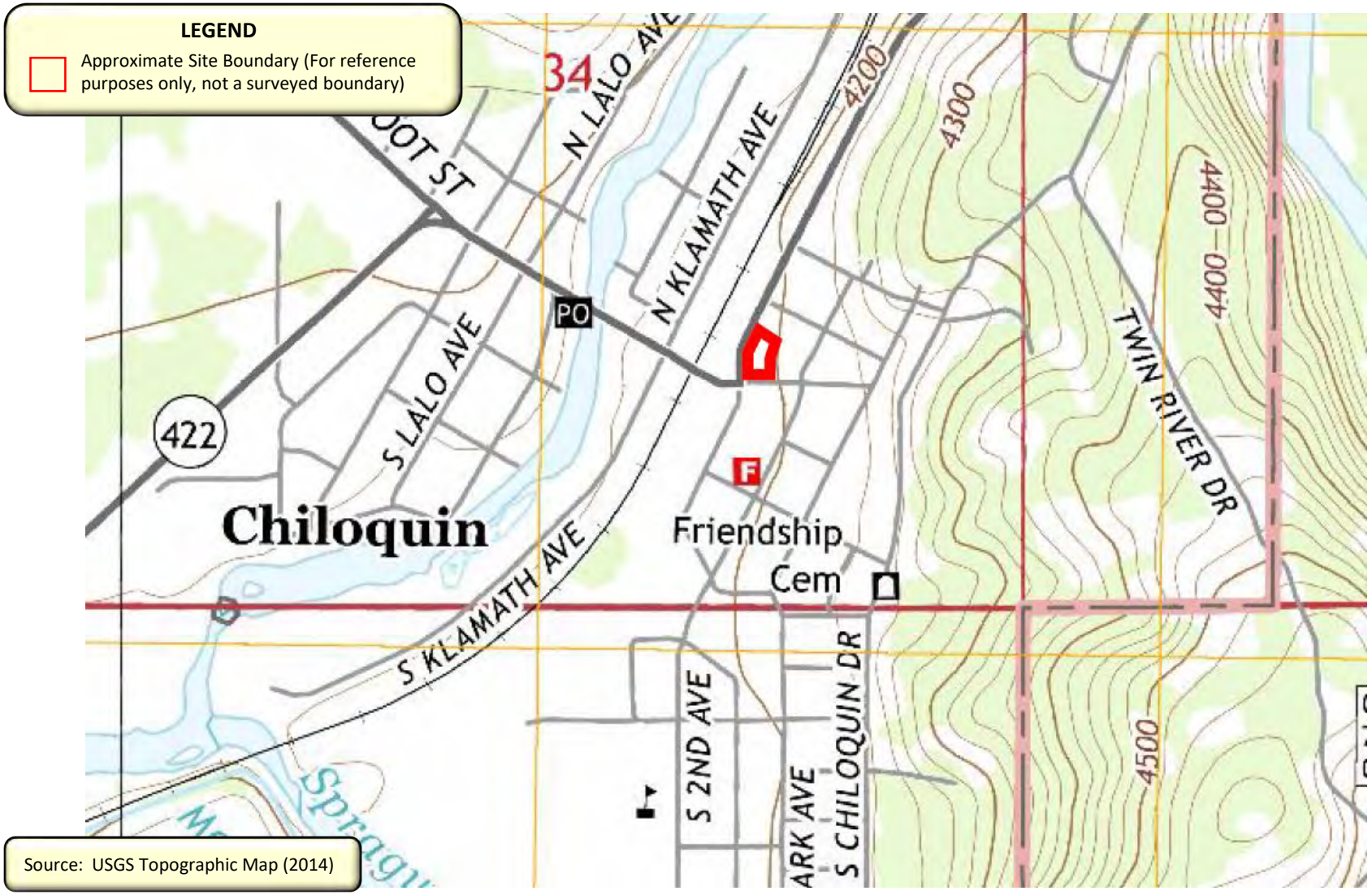
I declare this "*Phase I Environmental Site Assessment*" Report meets or exceeds Cardno's standards for editorial content, technical accuracy, and quality assurance verification. All data and calculations presented herein have been checked for accuracy and the basis for all conclusions and recommendations have been described.

for Cardno

W. Ashton Smithwick
Geologist I

Date: May 17, 2021

Figures



Cardno
Shaping the Future

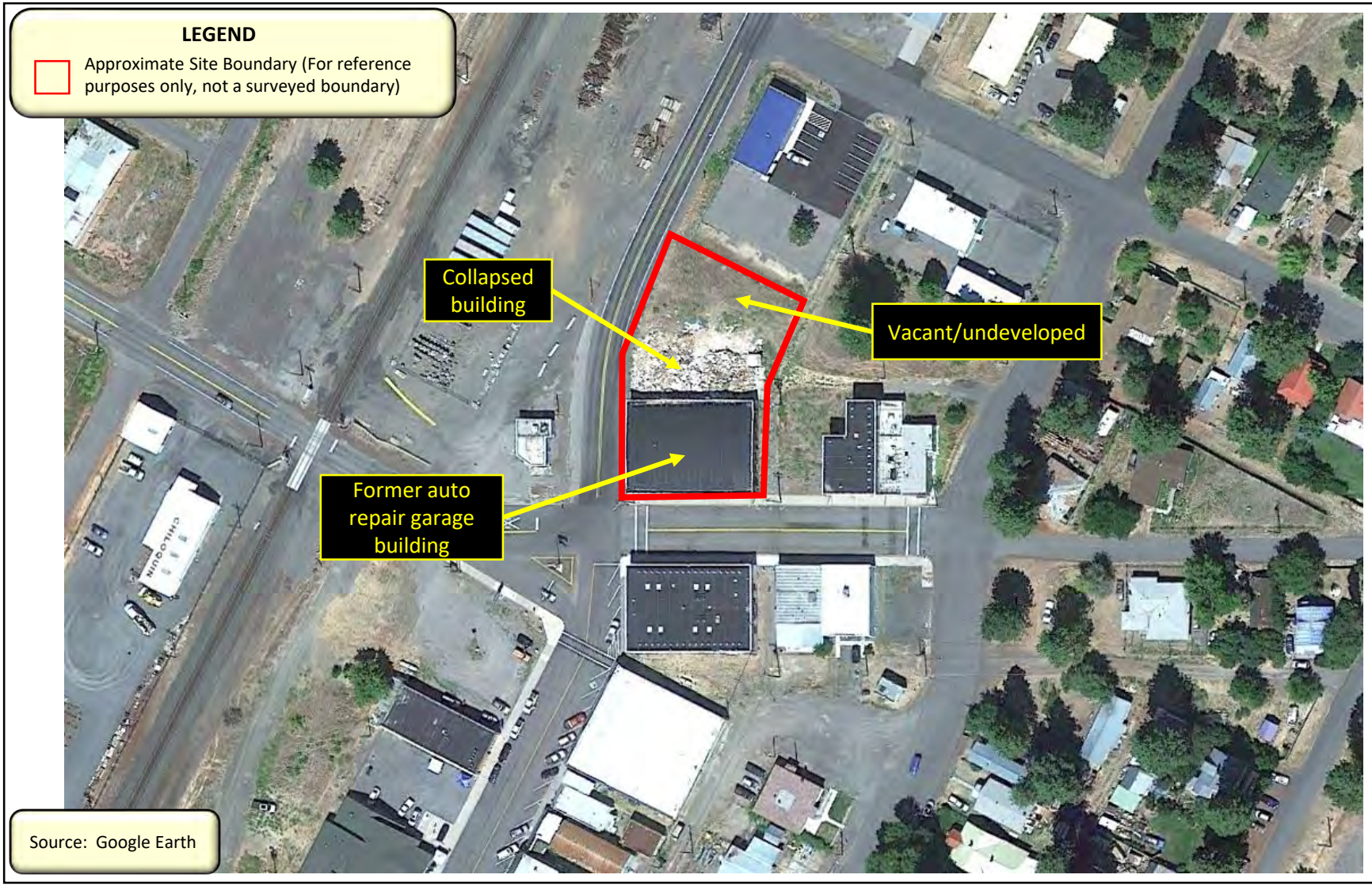
"This is not a map of survey."

N

310 0 310

Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Harney County
EPA Cooperative Agreement: #BF-01J86601-0

Figure 1
USGS/Site Vicinity Map



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"This is not a map of survey."

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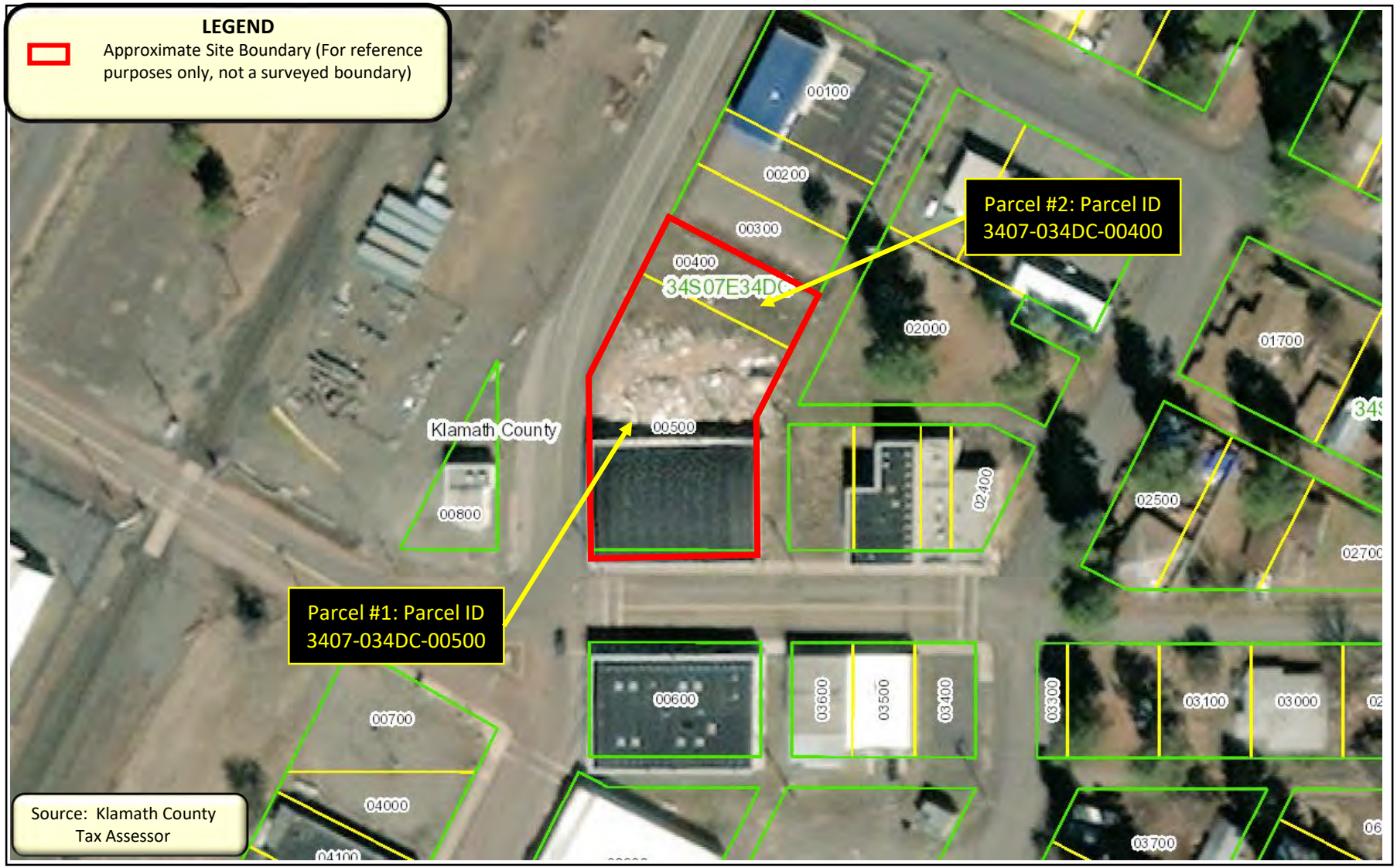
Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 2
Site Boundary Map



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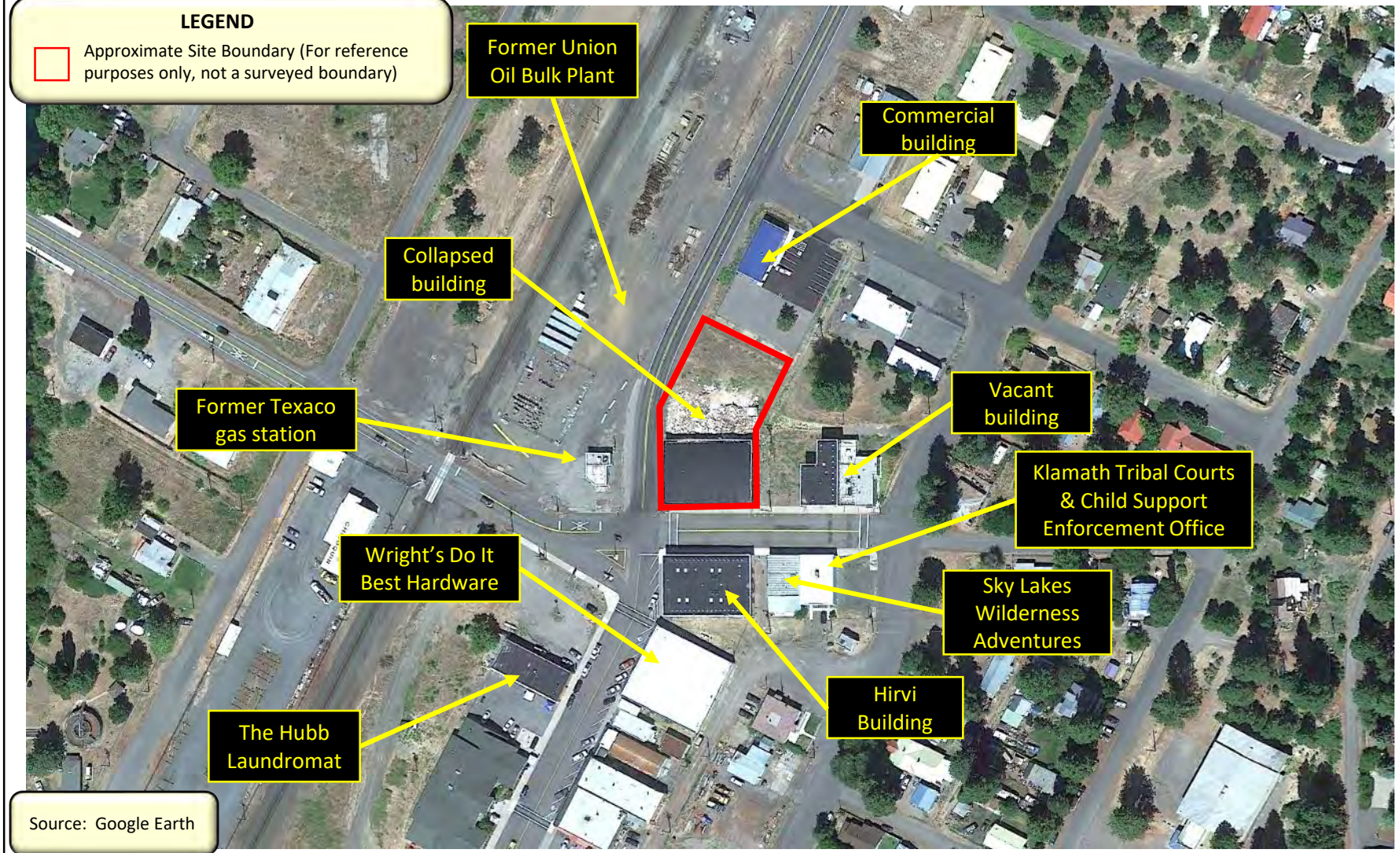
Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Harney County
EPA Cooperative Agreement: #BF-01J86601-0

Figure 3
Tax Map



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"This is not a map of survey."

N

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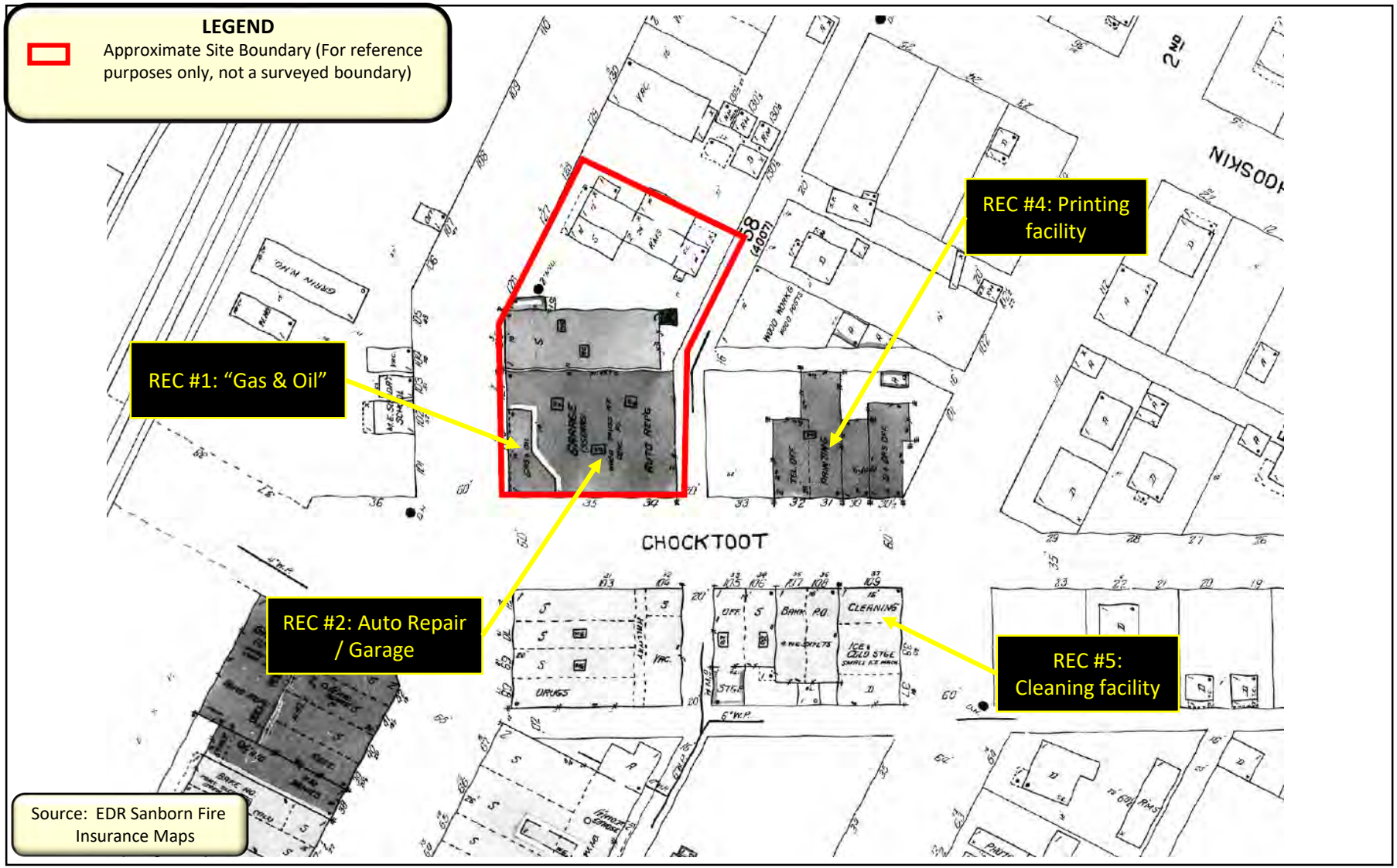
Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Harney County
EPA Cooperative Agreement: #BF-01J86601-0

Figure 4
Surrounding Land Use Map



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"This is not a map of survey."

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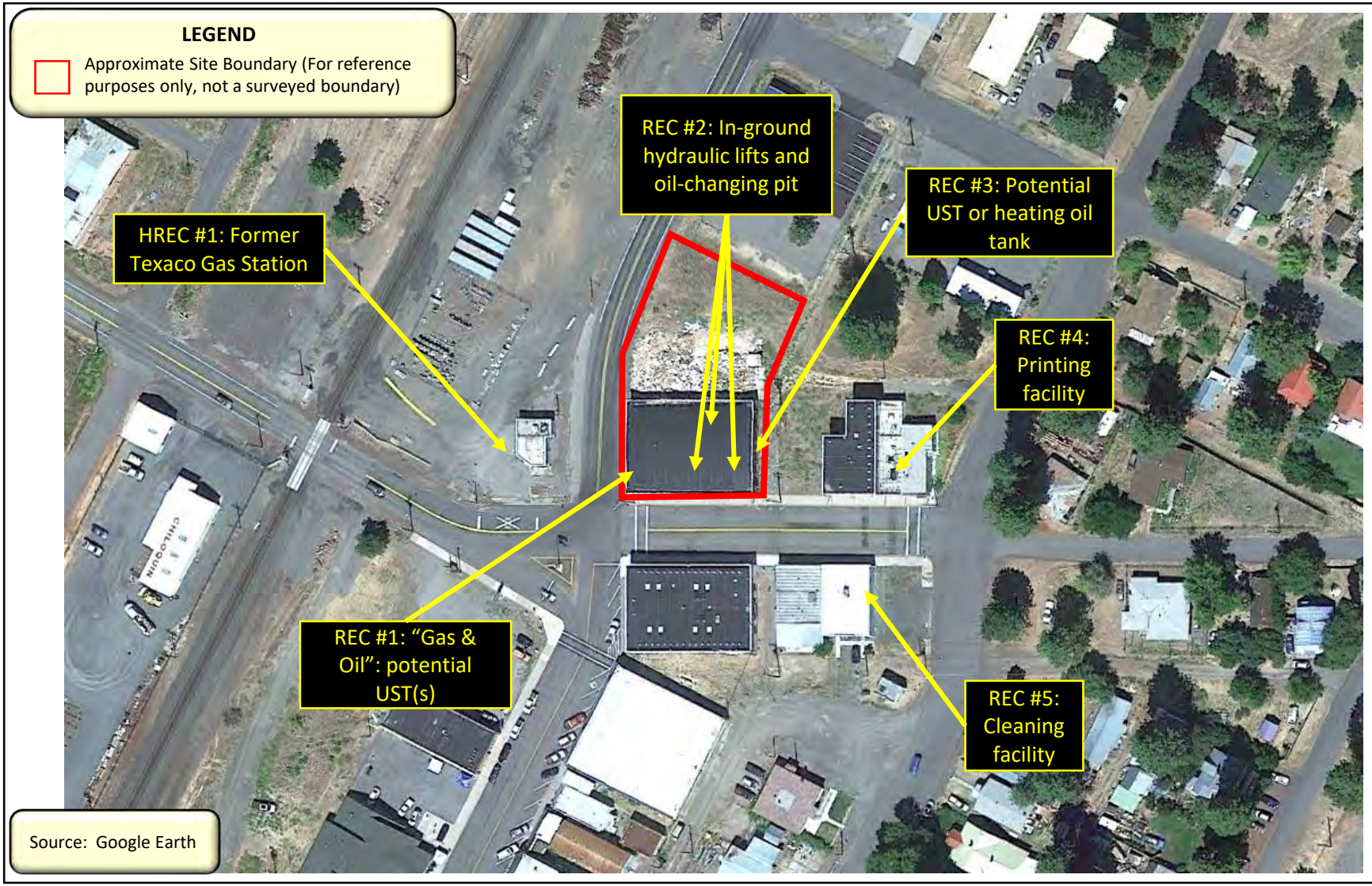
Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Harney County
EPA Cooperative Agreement: #BF-01J86601-0

Figure 5
1931 Sanborn FIM Map



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"This is not a map of survey."

N

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Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 6
REC Location Map

Appendix A

Photographic Log

PHOTOGRAPHIC LOG

Site Location:	Project
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	Date:
1	4/13/2021

Direction Photo Taken:

East

Description:

A view of the on-site building located at the Subject Property from North 1st Avenue.

Photo No.	Date:
2	4/13/2021

Direction Photo Taken:

Southeast

Description:

View of the on-site building and demolished building attachment on the Subject Property from North 1st Avenue. The building debris is considered PACM.

PHOTOGRAPHIC LOG

Site Location:	Project
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	Date:
3	4/13/2021

Direction Photo Taken:

North

Description:

View of the southwest corner of the on-site building from West Chocktoot Street.

Photo No.	Date:
4	4/13/2021

Direction Photo Taken:

Northeast

Description:

View of the southeast corner of the on-site building from West Chocktoot Street.

PHOTOGRAPHIC LOG

Site Location:	Project
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	Date:
5	4/13/2021

Direction Photo Taken:

Southwest

Description:

View of a pile of wood chips and an in-ground hydraulic lift (1).

Photo No.	Date:
6	4/13/2021

Direction Photo Taken:

East

Description:

A view of an in-ground hydraulic lift (2). Additionally, a vent pipe (left of door) is indicative of a potential UST or heating oil tank.

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PHOTOGRAPHIC LOG

Site Location:	Project
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	Date:
7	4/13/2021

Direction Photo Taken:

East

Description:

View of an oil-changing pit (1) and an in-ground hydraulic lift (3).

Photo No.	Date:
8	4/13/2021

Direction Photo Taken:

Northwest

Description:

View of potential underground storage tank (UST) vent pipe along the interior of the west wall.

PHOTOGRAPHIC LOG

Site Location:	Project
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	Date:
9	4/13/2021

Direction Photo Taken:

Northeast

Description:

A view of a commercial building at the north adjoining property.

Photo No.	Date:
10	4/13/2021

Direction Photo Taken:

East

Description:

View of an abandoned building at the east adjoining property.

PHOTOGRAPHIC LOG

Site Location: Former Markwardt Brothers, Chiloquin, Oregon 97624	**Project** CHILOQ100

Photo No.	**Date:**
11	**4/13/2021**

Direction Photo Taken:

Southeast

Description:

A view of Sky Lakes Wilderness Adventures (right) and Klamath Tribal Courts & Child Support Enforcement Office (left) at the southeast adjacent property.

Photo No.	**Date:**
12	**4/13/2021**

Direction Photo Taken:

Southwest

Description:

View of the Hirvi Building at the south adjacent property.

PHOTOGRAPHIC LOG

Site Location:	**Project**
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	**Date:**
13	**4/13/2021**

Direction Photo Taken:

West

Description:

View of the former Shell gas station at the west adjacent property.

Photo No.	**Date:**
14	**4/13/2021**

Direction Photo Taken:

Southwest

Description:

Confirmed ACM: White skim coat on plaster surfacing located in Room 2.

PHOTOGRAPHIC LOG

Site Location:	Project
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	Date:
15	4/13/2021

Direction Photo Taken:

Southeast

Description:

Confirmed ACM: White texture and joint compound on drywall located in Room 2.

Photo No.	Date:
16	4/13/2021

Direction Photo Taken:

Southwest

Description:

Confirmed ACM: Interior white caulk located in Room 2.

PHOTOGRAPHIC LOG

Site Location:
Former Markwardt Brothers, Chiloquin, Oregon 97624

Project
CHILOQ100

Photo No.	Date:
17	4/13/2021

Direction Photo Taken:

Southeast

Description:

Confirmed ACM: Exterior red paint on plaster surfacing.

Photo No.	Date:
18	4/13/2021

Direction Photo Taken:

N/A

Description:

Confirmed LBP: Interior tan/gray paint on wood ceiling located in Room 2.

Asbestos & Lead-Based Paint Survey

Former Markwardt Brothers Garage
North 1st Avenue and West Chocktoot Street
Chiloquin, Klamath County, Oregon

May 17, 2021

Prepared for:
City of Chiloquin, Oregon

Cardno®
Shaping the Future

Asbestos & Lead-Based Paint Survey Report

Prepared for: Ms. Teresa R. Foreman
City Recorder for the City of Chiloquin
City of Chiloquin, Oregon
127 South 1st Avenue
Chiloquin, Oregon 97624

Project Name: **Asbestos & Lead-Based Paint Survey**
Former Markwardt Brothers Garage
North 1st Avenue and West Chocktoot Street
Chiloquin, Klamath County, Oregon

Cardno Project #: CHILOQ100

Date: May 17, 2021

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Figures

Tables

Appendices

Executive Summary

Cardno has completed a comprehensive Asbestos and limited Lead-Based Paint survey of the former Markwardt Brothers Garage located northeast of the North 1st Avenue and West Chocktoot Street intersection in Chiloquin, Oregon. The study property is herein referred to as "the Subject Site/Property" or "the Site" (as generally depicted in **Figures 1 and 2**) and consists of approximately 0.55-acres developed with one commercial structure. The Subject Property and its on-site structure are currently owned by Klamath County. The Subject Site is currently being evaluated for redevelopment.

The Subject Property is located in the downtown area of Chiloquin, Oregon. Historically, the surrounding area has been commercially and residentially developed since the 1920s. The Subject Property is bordered to the north by a commercial property; to the east and south by additional commercial properties; and to the west by a former gas station.

This assessment was performed to satisfy the requirements of the Client (City of Chiloquin) and their assigns (including the prospective purchaser) with respect to potential environmental impairment and liabilities associated with the property due to contamination by hazardous substances. This assessment was completed under the City of Chiloquin's Business of Oregon Brownfield Grant for the site.

In summary, the results of this survey are stated below.

Asbestos: Comparison of the laboratory analytical results to the Occupational Safety and Health Administration's (OSHA) for building materials containing >1% asbestos revealed:

- Interior white skim coat on plaster surfacing, totaling approximately 3,700 square feet (SF), located within the western most portions of the on-site building.
- Interior white texture and joint compound on drywall, totaling approximately 1000 SF, located within the western most portions of the on-site building.
- Interior white caulk, totaling approximately 50linear feet (LF), located on interior west wall windows.

For the purposes of demolition, the ACMs identified during this inspection are considered RACM (regulated ACM). RACM consists of friable ACM, Category I non-friable ACM that has become friable, Category I non-friable ACM that is subjected to sanding, grinding, cutting or abrading, or Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The following suspect building materials were not sampled and should be considered presumed asbestos containing materials (PACM):

- Exterior building debris from former attached north addition, totaling approximately 650 cubic yards (CY).

The north building addition was constructed around the same time as the main building, and the building debris appeared to have suspect materials. Therefore, the building debris should be considered asbestos containing until sampling by a licensed asbestos inspector indicates otherwise.

Lead-Based Paint: Comparison of the laboratory analytical results to the Environmental Protection Agency (EPA) and Housing and Urban Development (HUD) for paint chips identified the following materials as lead-based paint:

- Red paint on exterior concrete masonry unit (CMU), totaling approximately 3,600 SF, located on the exterior east, south, and west walls.
- Tan/gray paint on interior ceiling, totaling approximately 1,200 SF, located on wood board ceiling on the southwest corner of the building.

Based on the results of the Phase II ESA, Cardno recommends:

- The identified ACMs appears to be in good to fair condition. Prior to any renovation or demolition that may cause the ACM to become friable, these materials should be removed or abated by a qualified asbestos abatement contractor in compliance with federal, state, and local regulations. If the ACM is to be left in place, an Operation and Maintenance (O&M) plan should be implemented regarding the handling of the identified ACM.
- The exterior building debris should be considered PACM and treated as ACM until further sampling by a licensed asbestos inspector indicates otherwise.
- The identified lead-based paint appeared to be overall in good to fair condition. The building is not considered a child-occupied facility, the identified LBP can be left intact unless disturbed during renovation or demolition.
- For the purposes of demolition or renovation, if the paint is well adhered to the substrate and will not be cut, sanded, or abraded by mechanical means for sizing than it can be disposed of along with the construction and demolition debris. Loose and flaking lead-containing paint should be removed and containerized as a waste stream for disposal purposes. Once all of the paint materials are collected for disposal, a waste profile sample should be collected to determine if the waste is hazardous. Hazardous materials must be properly containerized, transported, and disposed of in accordance with Resource Conservation Recovery Act (RCRA) standards and regulations.

1 Introduction

1.1 Purpose

This assessment was completed under the City of Chiloquin's Business of Oregon Brownfield Grant for the subject property. The Client (City of Chiloquin) intends to either renovate or demolish the building.

1.2 Site History

The Subject Site historically was identified as the Markwardt Brothers Garage from the 1930s to the 1960s; a second-hand store in the 1970s; and Juniper wood products processing facility in the 1980s. According to the Public Works Department, the building has been vacant since the late 1990s. A building attachment formerly occupied the property north of the on-site building. However, the roof of the former building collapsed and the remainder of the building was demolished in 2015. The northern portion of the property was developed with one structure in the 1930s but was razed and vacant since.

1.3 Property Descriptions

The Subject Site is comprised of one parcel, currently owned by the Klamath County, located in the center of downtown Chiloquin, Oregon as shown on **Figures 2 and 3**. The Subject Property is bound by an auto repair facility to the north, undeveloped/vacant land to the northeast, multi-commercial facilities to the east, Sky Lakes Wilderness Adventures and Klamath Tribal Courts & Child Support Enforcement Office to the southeast, the Hirvi building to the south, a former gas station to the west, and the former Union Oil Bulk Plant property to the northwest.

According to the Klamath County Tax Assessor's website, the Site encompasses two parcels totaling approximately 0.55 acres. The Subject Property currently is developed with a single-story commercial building of concrete block and brick facade construction. A former building addition has been previously demolished and the remains of the building materials remain with the exception of a vault. The building is currently vacant and in the care of Klamath County.

1.4 Building Description

During the asbestos and LBP survey, Cardno noted the construction materials utilized for the interior/exterior of the on-site building. The exterior walls of the building were concrete masonry units (CMU) with brick façade and the roof appears to be newly renovated thick plastic over wooden trusses.

The interior walls throughout the building consisted of a combination of CMU and CMU overlain with drywall and/or plaster/stucco. Throughout the interior of the building the floor consists of bare concrete slab. No basement or crawlspace was observed during the survey.

1.5 Previous Assessments

Cardno is also completing a Phase I ESA in concert with this asbestos and lead-based paint survey. This Phase I ESA investigation identified a potential UST(s), auto repair/garage uses, potential mishandling/disposal of chemicals on the Subject Property as well as a Recognized Environmental conditions (RECs) associated with former off-site printing and dry-cleaning facilities. The Phase I ESA report will be submitted to the client under separate cover. However, no prior environmental reports were provided for review.

1.6 Limitations / Exceptions of Assessment

A comprehensive asbestos and limited LBP survey was completed by Cardno to identify potential ACM and LBP. Any suspect building materials not sampled and analyzed for asbestos during this investigation should be treated as presumed asbestos containing materials (PACM) until further sampling by a certified inspector indicates otherwise. Any suspect LBP not sampled and analyzed for lead during this investigation should be treated as LBP until further sampling by a certified inspector indicates otherwise. Further, it should be noted that the collection and analysis of roofing materials was not included in the scope of this project.

No other warranty is expressed or implied.

1.7 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by the entity(s) identified in the Executive Summary of this report as the Client, as well as any of its affiliates and their respective successors and assigns, in connection with a commercial real estate transaction involving the property, and in accordance with the terms and conditions in place between Cardno and the Client for this project. Any third party agrees by accepting this report that any use or reliance on this report shall be limited by the exceptions and limitations in this report, and with the acknowledgment that actual site conditions may change with time, and that hidden conditions may exist at the property that were not discovered within the authorized scope of the assessment. Any use by or distribution of this report to third parties, without the express written consent of Cardno is at the sole risk and expense of such third party.

Cardno makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied.

2 Sampling Activities

2.1 Asbestos Survey

A comprehensive asbestos survey was conducted on April 13, 2021 by Cardno's Mr. Ashton Smithwick, a licensed and accredited asbestos inspector, in accordance with the Asbestos Hazardous Emergency Response Act (AHERA) and Asbestos School Hazard Abatement Reauthorization Act (ASHARA). Mr. Smithwick was assisted by Cardno's Keith Ziobron, P.E. Mr. Smithwick's accreditation certificate is included as **Appendix C.**

In accordance with National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 61-Subpart M, paragraph 145, all asbestos containing materials (ACMs) must be identified and removed prior to disturbance, either during a renovation or demolition. ACM is defined by OSHA as materials that contain greater than 1% asbestos fibers.

The ACM survey included a visual survey of all accessible interior/exterior areas of the on-site building. Destructive testing was performed to verify the existence and extent of ACM in all building materials. The roof and exterior were also included during this survey. This survey was performed in accordance with AHERA and NESHAP protocols.

All suspect materials, or homogeneous areas (HAs) were visually identified. Each HA was visually assess for condition, friability, and quantity. All identified ACMs were classified by their category as denoted by EPA NESHAP and OSHA. These categories include:

- Thermal System Insulation (TSI) – insulation typically over pipes, fittings, elbows, boilers, tanks, ducts, etc.
- Surfacing material – material that is sprayed, troweled-on, or otherwise applied to surfaces.
- Miscellaneous – All other ACMs
- Friable – ACM that can be crumbled pulverized or reduced to a powder by hand pressure when dry
- Category I Non-Friable – ACM consisting of packing material, gaskets, resilient floor covering, and asphalt roofing products
- Category II Non-Friable – All ACM that is not listed in Category I Non-Friable ACM
- Presumed Asbestos Containing Material (PACM) – all potential ACM not analytically analyzed

Each HA was visually assessed for condition, friability, and quantity. A summary of the bulk samples collected is included as **Table 1** and sample locations are depicted on **Figure 3.**

During the survey, Cardno collected 23 samples from the former Markwardt Brothers Garage building. All bulk samples were collected and stored in appropriate sample containers, labeled, and delivered to Eurofins EMLab P&K (EMLab) in Norcross, Georgia. EMLab analyzed all samples using Polarized Light Microscopy (PLM) via EPA Method 600/R-93/116. This laboratory is accredited by the National Institute of Standards of Technology (NIST), and is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP). A copy of the analytical results including the laboratory certification is included in **Attachment B.**

2.2 Limited Lead-Based Paint Survey

A limited LBP survey was conducted on April 13, 2020 by Cardno's Mr. Ashton Smithwick, an EPA-accredited LBP inspector. Mr. Smithwick was assisted by Cardno's Keith Ziobron, P.E. All testing was completed in accordance with applicable HUD, state, and federal regulations regarding LBP surveys. No previous LBP sampling information was provided by the client or the property owner.

The LBP testing was performed in accordance with the survey protocol in Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing. Painted surfaces were tested by collected paint chips of various painted surfaces throughout the interior and exterior of the building. The roof and exterior were not included during this survey. LBP is defined by EPA as containing greater than 0.5% lead in painted materials.

During the survey, Cardno collected 12 paint chips samples from unique locations throughout the interior and exterior of the on-site building. A summary of all paint chip samples collected is included as **Table 2** and sample locations are depicted on **Figure 3.**

The paint chip samples were transferred into appropriate containers, labeled, and shipped to EMLab in Norcross, Georgia. The laboratory analyzed the samples using flame atomic absorption spectrometry (FAAS) via National Institute for Occupational Safety and Health (NIOSH) Method 7082. This laboratory is accredited by the NIST program, and is recognized under the NVLAP. A copy of the analytical results included the laboratory certification is included in **Appendix B.**

3 Analytical Results

3.1 Asbestos-Containing Materials

- Interior white skim coat on plaster surfacing, totaling approximately 3,600 square feet (SF), located within the western most portions of the on-site building.
- Interior white texture and joint compound on drywall, totaling approximately 800 SF, located within the western most portions of the on-site building.
- Interior white caulk, totaling approximately 30 linear feet (LF), located on interior west wall windows.

The interior skim coat identified totaled approximately 3,600 SF and was located within the western most portions of the on-site building. This material was in fair condition and considered a friable surfacing material.

The texture and joint compound on drywall totaled approximately 800 SF and was located in Rooms 2 and 3. This material was in fair condition and considered a miscellaneous Category I non-friable material.

The interior white caulk totaled approximately 30 LF and was located in Room 3. This material was in good condition and considered a miscellaneous Category II non-friable material.

The following materials were not sampled and should be considered PACM:

- Exterior building debris from former attached north addition, totaling approximately 650 CY.

The north building addition was constructed around the same time as the main building, and the building debris appeared to have suspect materials. Therefore, the building debris should be considered asbestos containing until sampling by a licensed asbestos inspector indicates otherwise.

Photos of some of the identified ACMs are included as **Attachment A**.

The laboratory report is included as **Attachment B** with results summarized in **Table 1**.

3.2 Lead-Based Paint

In accordance with EPA, any paint containing 0.5% by weight of lead is categorized as containing lead. Based on the paint chip sampling results, the following painted surface tested positive for lead-based paint:

- Red paint on CMU on the south exterior wall, totaling approximately 3,600 SF.
- Tan/gray paint on wood on the Room 3 ceiling, totaling approximately 1,200 SF.

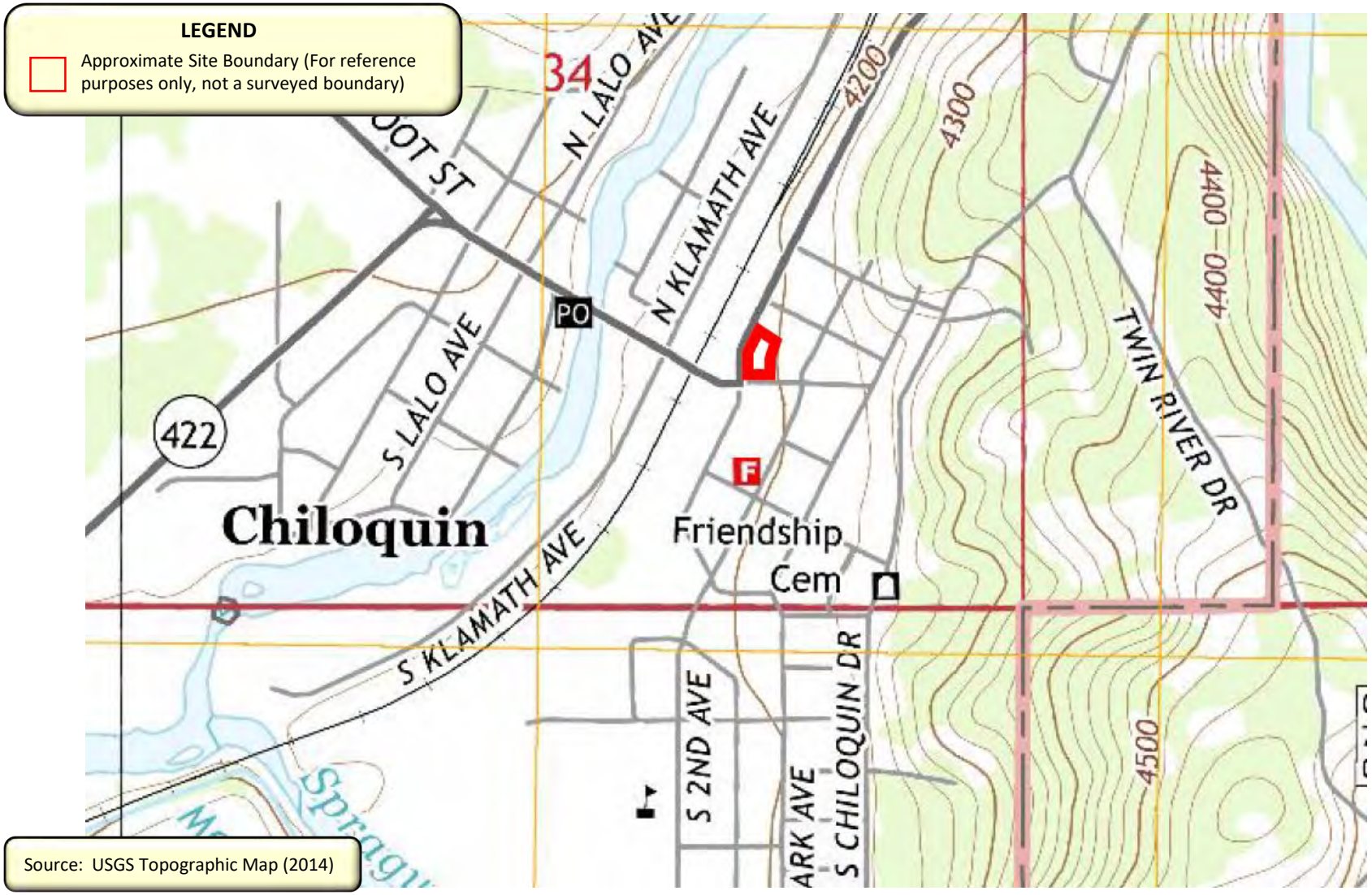
Photos of some of the identified LBPs are included as **Attachment A**. The laboratory report is included as **Appendix B** with results summarized in **Table 2**.

4 Conclusions/Recommendations

Based on the results of this Phase II ESA:

- The identified ACMs appears to be in good to fair condition. Prior to any renovation or demolition that may cause the ACM to become friable, these materials should be removed or abated by a qualified asbestos abatement contractor in compliance with federal, state, and local regulations. If the ACM is to be left in place, an O&M plan should be implemented regarding the handling of the identified ACM.
- The exterior building debris should be considered PACM and treated as ACM until further sampling by a licensed asbestos inspector indicates otherwise.
- The identified lead-based paint appeared to be overall in good to fair condition. The building is not considered a child-occupied facility, the identified LBP can be left intact unless disturbed during renovation or demolition.
- For the purposes of demolition or renovation, if the paint is well adhered to the substrate and will not be cut, sanded, or abraded by mechanical means for sizing than it can be disposed of along with the construction and demolition debris. Loose and flaking lead-containing paint should be removed and containerized as a waste stream for disposal purposes. Once all of the paint materials are collected for disposal, a waste profile sample should be collected to determine if the waste is hazardous. Hazardous materials must be properly containerized, transported, and disposed of in accordance with RCRA standards and regulations.

Figures



Cardno
Shaping the Future

"This is not a map of survey."

N

310 0 310

Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 1
USGS/Site Vicinity Map

Cardno
Shaping the Future

"This is not a map of survey."

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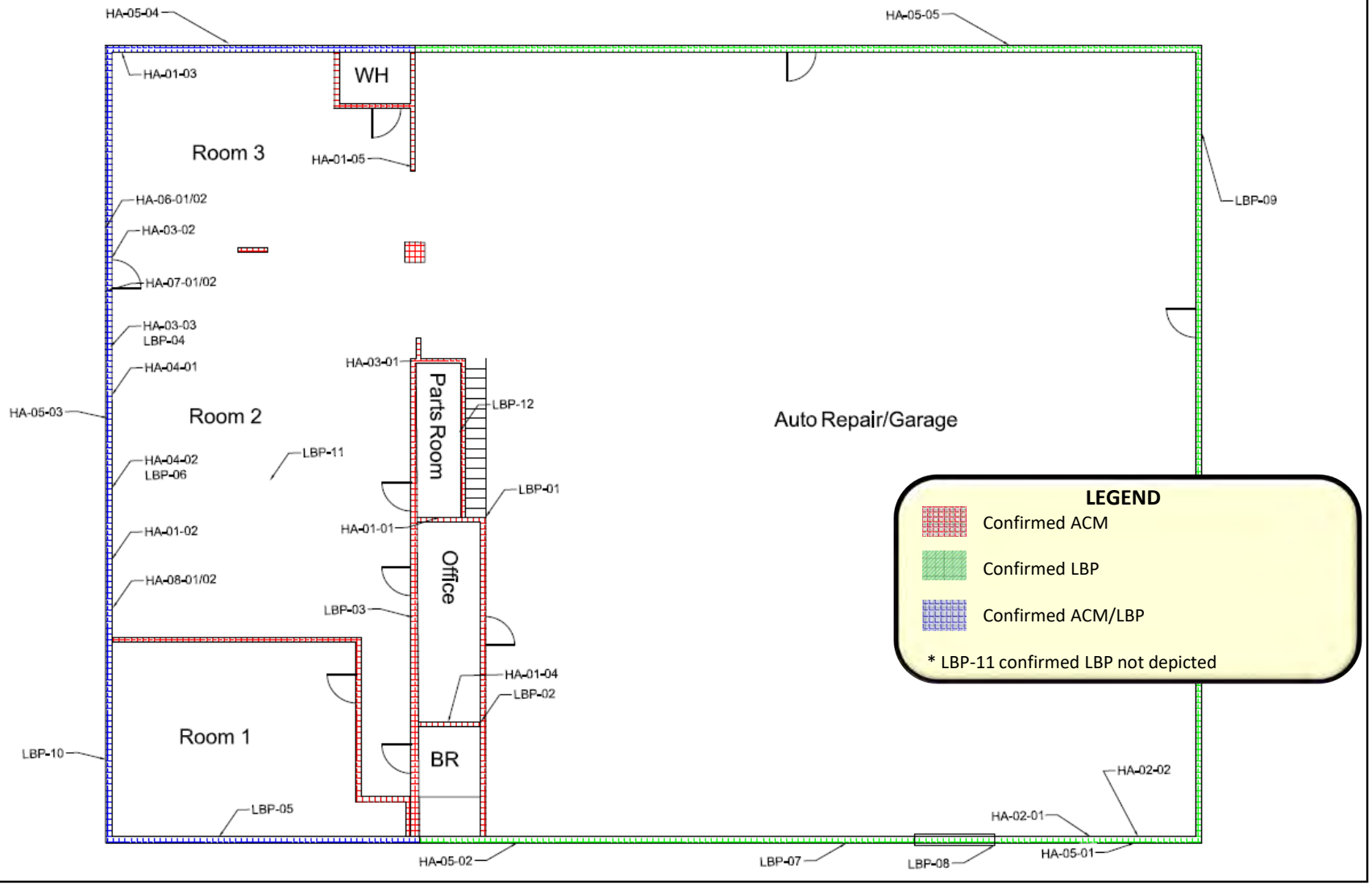
Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 2
Site Boundary Map



Cardno
Shaping the Future

"This is not a map of survey."

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Phase I ESA
Former Markwardt Brothers
Chiloquin, Klamath County, Oregon
Cardno Project # CHILOQ100

Figure 3
Building Diagram with ACM/LBP Sample Locations

Tables

TABLE 1: SUMMARY OF BULK SAMPLE ANALYSIS AND ASSESSMENT
FACILITY NAME: FORMER MARKWARDT BROTHERS GARAGE
CHILOQUIN, OREGON

HA ID	Date	HA Description	Material Location	Percent and Type of Asbestos Detected[1]	Estimated Quantity	Type of ACM[2]	Friability[3]	Physical Condition
HA-01-01	4/13/21	Interior plaster surfacing (Off-white plaster)	Parts room	NAD	N/A	N/A	NF	Good
HA-01-02	**4/13/21**	**Interior plaster surfacing (white skim coat)**	**Room 2**	**2% CH**	**3,600 SF***	**SM**	**F**	**Good**
HA-01-03	4/13/21	Interior plaster surfacing (Off-white plaster)	Room 3	NAD	N/A	N/A	NF	Good
HA-01-04A	**4/13/21**	**Interior plaster surfacing (white skim coat)**	**Office**	**2% CH**	**3,600 SF***	**SM**	**F**	**Good**
HA-01-04B	4/13/21	Interior plaster surfacing (Off-white plaster)	Office	NAD	N/A	N/A	NF	Good
HA-01-05	4/13/21	Interior plaster surfacing (Off-white plaster/gray debris)	Room 3	NAD	N/A	N/A	NF	Good
HA-02-01	4/13/21	Window glazing, gray	Auto repair/Garage	NAD	N/A	N/A	NF	Good
HA-02-02	4/13/21	Window glazing, gray	Auto repair/Garage	NAD	N/A	N/A	NF	Good
HA-03-01A	**4/13/21**	**Drywall (Texture)**	**Room 3**	**2% CH**	**800 SF****	**Misc. Cat 1**	**NF**	**Fair**
HA-03-01B	4/13/21	Drywall (Cream tape)	Room 3	NAD	N/A	N/A	NF	Fair
HA-03-01C	**4/13/21**	**Drywall (Joint Compound)**	**Room 3**	**2% CH**	**800 SF****	**Misc. Cat 1**	**NF**	**Fair**
HA-03-01D	4/13/21	Drywall (with brown paper)	Room 3	NAD	N/A	N/A	NF	Fair
HA-03-02A	**4/13/21**	**Drywall (Texture)**	**Room 2**	**2% CH**	**800 SF****	**Misc. Cat 1**	**NF**	**Fair**
HA-03-02B	4/13/21	Drywall (Cream tape)	Room 2	NAD	N/A	N/A	NF	Fair
HA-03-02C	**4/13/21**	**Drywall (Joint Compound)**	**Room 2**	**2% CH**	**800 SF****	**Misc. Cat 1**	**NF**	**Fair**
HA-03-02D	4/13/21	Drywall (with brown paper)	Room 2	NAD	N/A	N/A	NF	Good
HA-03-03A	4/13/21	Drywall (Texture)	Room 2	NAD	N/A	N/A	NF	Good
HA-03-03B	4/13/21	Drywall (Cream tape)	Room 2	NAD	N/A	N/A	NF	Good
HA-03-03C	4/13/21	Drywall (Joint Compound)	Room 2	NAD	N/A	N/A	NF	Good
HA-03-03D	4/13/21	Drywall (with brown paper)	Room 2	NAD	N/A	N/A	NF	Good
HA-04-01	4/13/21	Wall felt, black	Room 2	NAD	N/A	N/A	NF	Good
HA-04-02	4/13/22	Wall felt, black	Room 2	NAD	N/A	N/A	NF	Good
HA-05-01A	4/13/21	Exterior plaster surfacing (skim coat)	Southeast ext. wall	NAD	N/A	N/A	NF	Good
HA-05-01B	4/13/21	Exterior plaster surfacing (gray plaster)	South ext. wall	NAD	N/A	N/A	NF	Good
HA-05-02	4/13/21	Exterior plaster surfacing (gray plaster)	Southwest ext. wall	NAD	N/A	N/A	NF	Good
HA-05-03	4/13/21	Exterior plaster surfacing (gray plaster)	West ext. wall	NAD	N/A	N/A	NF	Good
HA-05-04	4/13/21	Exterior plaster surfacing (gray plaster)	Northwest ext. wall	NAD	N/A	N/A	NF	Good
HA-05-05	4/13/21	Exterior plaster surfacing (gray plaster)	Northeast ext. wall	NAD	N/A	N/A	NF	Good
HA-06-01	4/13/21	Exterior gray caulk	West ext. wall	NAD	N/A	N/A	NF	Good
HA-06-02	4/13/21	Exterior gray caulk	West ext. wall	NAD	N/A	N/A	NF	Good
HA-07-01	4/13/21	Exterior white caulk	West ext. wall	NAD	N/A	N/A	NF	Good
HA-07-02	4/13/21	Exterior white caulk	West ext. wall	NAD	N/A	N/A	NF	Good
HA-08-01	**4/13/21**	**Interior white caulk**	**Room 2**	**2% CH**	**30 LF**	**Misc. Cat 2**	**NF**	**Good**
HA-08-02	**4/13/21**	**Interior white caulk**	**Room 2**	**2% CH**	**30 LF**	**Misc. Cat 2**	**NF**	**Good**
N/A	**4/13/21**	**Building debris**	**Exterior north addition**	**N/A**	**650 CY**	**PACM**	**F**	**Poor**

* White skim coat on plaster quantity is obtained estimated total quantity of assocated plaster
**Joint compound and texture quantity is obtained estimated total quantity of associated drywall

Notes:
(1) CH = Chrysotile; AM = Amosite; CR = Crocidolite; AN = Anthophyllite; AC = Actinolite; NAD = No Asbestos Detected
(2) Misc = Miscellaneous; TSI = Thermal System Insulation; SM= Surfacing Material
(3) F = Friable; NF - Non friable. For ACMs only: I = Non-Friable Category I; II = Non-Friable Category II
NM - not measured LF = linear feet PACM = Presumed Asbestos-Containing Materials
n/a - not applicable SF = square feet CY = Cubic Yards
PS = Positive stop, sample not analyzed

TABLE 2: SUMMARY OF PAINT CHIP ANALYSIS AND ASSESSMENT
FACILITY NAME: FORMER MARKWARDT BROTHERS GARAGE
CHILOQUIN, OREGON

Sample ID	Date	Location	Color	Substrate	Percentage Lead	Estimated Quantity	Physical Condition
LBP-01	4/13/21	Auto repair/Garage	White	Wood	0.150%	N/A	Not Intact
LBP-02	4/13/21	Office	Yellow	Plaster	0.038%	N/A	Intact
LBP-03	4/13/21	Office	Pink	Wood	0.082%	N/A	Intact
LBP-04	4/13/21	Room 2	White	Drywall	BRL	N/A	Intact
LBP-05	4/13/21	Room 1	Blue	CMU	0.0062%	N/A	Intact
LBP-06	4/13/21	Room 2	Green	CMU	0.0042%	N/A	Intact
LBP-07	**4/13/21**	**South Exterior Wall**	**Red**	**Plaster**	**2.000%**	**3,600 SF**	**Not Intact**
LBP-08	4/13/21	South Exterior Wall (garage door)	Green	Metal	0.0210%	N/A	Intact
LBP-09	4/13/21	East Exterior Wall	Red	CMU	0.0110%	N/A	Intact
LBP-10	4/13/21	West Exterior Wall	Red	Wood	0.0120%	N/A	Intact
LBP-11	**4/13/21**	**Room 2**	**Tan/gray**	**Wood**	**6.60%**	**1,200 SF**	**Not Intact**
LBP-12	4/13/21	Parts Room	Green	Wood	0.0120%	N/A	Not Intact

Notes:
NM - not measured
n/a - not applicable
LF = linear feet
SF = square feet
BRL = Below Laboratory Reporting Limit

Appendix A

Photographic Log

PHOTOGRAPHIC LOG

Site Location:
Former Markwardt Brothers, Chiloquin, Oregon 97624

Project
CHILOQ100

Photo No.	Date:
1	4/13/2021

Direction Photo Taken:

Southwest

Description:

Confirmed ACM: White skim coat on plaster surfacing located in Room 2.

Photo No.	Date:
2	4/13/2021

Direction Photo Taken:

Southeast

Description:

Confirmed ACM: White texture and joint compound on drywall located in Room 2.

PHOTOGRAPHIC LOG

Site Location:
Former Markwardt Brothers, Chiloquin, Oregon 97624

Project
CHILOQ100

Photo No. 3	**Date:** 4/13/2021

Direction Photo Taken:

Southwest

Description:

Confirmed ACM: Interior white caulk located in Room 2.

Photo No. 4	**Date:** 4/13/2021

Direction Photo Taken:

Southeast

Description:

Confirmed ACM: Exterior red paint on plaster surfacing.

PHOTOGRAPHIC LOG

Site Location:	Project
Former Markwardt Brothers, Chiloquin, Oregon 97624	CHILOQ100

Photo No.	Date:
5	4/13/2021

Direction Photo Taken:

N/A

Description:

Confirmed LBP: Interior tan/gray paint on wood ceiling located in Room 2.

Photo No.	Date:
6	4/13/2021

Direction Photo Taken:

Southeast

Description:

Pile of building debris is PACM.

FORMER MARKWARDT
BROTHERS GARAGE

APPENDIX

B

SOIL BORING LOGS

BORING LOG

Boring/Well Number: B-1	Permit Number:		Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8.17.21	Borehole Start Time: 1545 ☐ AM ☑ PM	
	End Date:	End Time: 1640 ☐ AM ☑ PM	
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick		Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches): 3"	Borehole Diameter (inches): 3"	Borehole Depth (feet): 15'
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☐ FID ☒ PID

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☑ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				1.7		1	Brown Sandy-Silt Some Gravel		D	
							2				
HA	2 - 4				6.6		3				B-1@2-4' 1650
							4				
DP	4 - 6				1.3		5				
							6				
DP	6 - 8						7			W	
							8				
DP	8 - 10						9				
							10				
DP	10 - 12						11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

ST@15'

BORING LOG

Boring/Well Number: B-2	Permit Number:		Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8.17.21	Borehole Start Time: 1045 ☑ AM ☐ PM	
	End Date: 1	End Time: 1110 ☑ AM ☐ PM	
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick		Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches): 3"	Borehole Diameter (inches): 2"	Borehole Depth (feet): 10'
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content): 6'	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☐ FID ☒ PID

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☑ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				1.3		1	Brown gravelly - Sand/clay		P	B-2@0'-2' 1115
							2				
							3				
HA	2 - 4				1.3		4				
							5				
DP	4 - 6				1.4		6	Brown gravelly - Sand loose coarse grains		W	
							7				
DP	6 - 8						8				
							9				
DP	8 - 10						10	BT @ 10'			
							11				
DP	10 - 12						12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: B-3	Permit Number:		Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8-17-21	Borehole Start Time: 0910 ☑ AM ☐ PM	
	End Date: 1	End Time: 0920 ☑ AM ☐ PM	
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick		Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches): 0	Borehole Diameter (inches):	Borehole Depth (feet):
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☐ FID ☒ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2						1	Brown gravelly-Silt loose fine grain		D	B-3@0-2' 1000
							2				
							3				
HA	2 - 4						4				
							5				
DP	4 - 6						6				
							7				
DP	6 - 8						8			W	
							9	Brown Silt tight fine grains			
DP	8 - 10						10				
							11				
DP	10 - 12						12	Brown Silty-sand some course	SM		

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Page 1 of _____

Boring/Well Number: B-4	Permit Number:		Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8.17.21	Borehole Start Time: 1000 ☑ AM ☐ PM	
	End Date: 1	End Time: 1015 ☑ AM ☐ PM	
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick		Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches): 4"	Borehole Diameter (inches): 3"	Borehole Depth (feet): 15'
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☐ FID ☒ PID

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☑ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				1.6		1	Brown gravelly-Silt loose fine grain some clay		D	B-4@0-2' 1040
							2				
HA	2 - 4				1.4		3				
							4				
							5				
DP	4 - 6				1.8		6				
							7				
DP	6 - 8				2.2		8	Brown Sandy-Silt some fine grain		W	
							9				
DP	8 - 10						10				
							11	Brown silty-Sand			
DP	10 - 12						12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number:	Site Name:	Borehole Start Date:
B-4	Former Markwardt Bros. Garage	8.17.21
		End Date:

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP	12 - 14						13	Brown silty sand		D	
							14				
							15	BT @ 15			
DP	14 - 16						16				
DP	16 - 18						17				
							18				
DP	18 - 20						19				
							20				
							21				
							22				
							23				
							24				
DP	25						25				
							26				
							27				
							28				
							29				
DP	30						30				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: B-5	Permit Number:	Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8.17.21	Borehole Start Time: 1115 ☑ AM ☐ PM
	End Date:	End Time: 1155 ☐ AM ☐ PM
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick	Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches):	Borehole Diameter (inches): / Borehole Depth (feet):
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well): / OVA (list model and check type): ☐ FID ☒ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				3.0		1	Brown gravelly - sand/silt loose			B.5@0-2 1210
							2				
HA	2 - 4				3.6		3	Brown clayey-silt loose some fines			
							4				
DP	4 - 6				1.1		5	Brown silty-sand some gravel			
							6			M	
DP	6 - 8						7			W	
							8				
DP	8 - 10						9				
							10	Brown coarse sand			
DP	10 - 12						11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: B3	Site Name: Former Markwardt Bros. Garage	Borehole Start Date: / End Date:

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
							13	Brown very fine Sand			
DP	12 - 14						14	Gray Dense gravelly-Sand			
							15				
DP	14 - 16						16	BT @ 15'			
DP	16 - 18						17				
							18				
DP	18 - 20						19				
							20				
							21				
							22				
							23				
							24				
DP	25						25				
							26				
							27				
							28				
							29				
DP	30						30				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: B-6	Permit Number:	Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8.17.21	Borehole Start Time: 1425 ☐ AM ☑ PM
	End Date: 1	End Time: 1440 ☐ AM ☑ PM
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick	Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches): 3"	Borehole Diameter (inches): 3"
Borehole Depth (feet): 10'		
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☐ FID ☒ PID		

Disposition of Drill Cuttings [check method(s)]: ☑ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				7.8		1	Brown Sandy-silt		D	B-6 @ 0-2' 1455
							2				B-6 DUP 1500 (VOCs)
HA	2 - 4				3.6		3				
							4				
DP	4 - 6				2.0		5				
							6				
DP	6 - 8				3.1		7			M	
							8				
DP	8 - 10						9				
							10	BT @ 10'			
DP	10 - 12						11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Boring/Well Number: B-7	Permit Number:		Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8-17-21	Borehole Start Time: 1330 ☐ AM ☑ PM	
	End Date: 1	End Time: 1355 ☐ AM ☑ PM	
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick		Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches): 3"	Borehole Diameter (inches): 3"	Borehole Depth (feet): 10'
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): ☐ FID ☒ PID

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				10.5		1	Brown Sandy-silt		D	B7-@0-2' 1425
							2				
							3				
HA	2 - 4				3.0		4				
							5				
DP	4 - 6				3.1		6				
							7			W	
DP	6 - 8				2.5		8				
							9				
DP	8 - 10						10				
							11	BT@10'			
DP	10 - 12						12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Page 1 of _____

Boring/Well Number: B-8	Permit Number:	Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date:	Borehole Start Time: ☐ AM ☐ PM
	End Date:	End Time: ☐ AM ☐ PM
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick	Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches):	Borehole Diameter (inches):
Borehole Depth (feet):		
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☐ FID ☒ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				0.8		1	Brown Sandy-Silt			
							2	Wose			B-8 @ 2-4'
HA	2 - 4				4.9		3				1540
							4				
							5				
DP	4 - 6						6				
							7	Refusal @ 6' x2			
DP	6 - 8						8				
							9				
DP	8 - 10						10				
							11				
DP	10 - 12						12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

4

BORING LOG

Boring/Well Number: B-9	Permit Number:	Facility Identification Number:
Site Name: Former Markwardt Bros. Garage	Borehole Start Date: 8.17.21	Borehole Start Time: 1310 ☐ AM ☑ PM
	End Date: 1	End Time: 1325 ☐ AM ☑ PM
Environmental Contractor: Cardno	Geologist's/Engineer's Name: Ashton Smithwick	Environmental Technician's Name:
Drilling Company: Steadfast Services	Pavement Thickness (inches): 3"	Borehole Diameter (inches): 3" Hollow Stem
Borehole Depth (feet): 10'		
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content): ~7'	Measured Well DTW (in feet after water recharges in well):
OVA (list model and check type): ☐ FID ☒ PID		

Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☐ Backfill ☐ Stockpile ☐ Other

(describe if other or multiple items are checked):

Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	0 - 2				13.9		1	Brown sandy-silt loose some fines		D	
							2				
HA	2 - 4				22.4		3				B-9@2'-4' 1400
							4				
DP	4 - 6				3.8		5				
							6				
DP	6 - 8						7				
							8				
DP	8 - 10						9				
							10	BT@10'			
DP	10 - 12						11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

FORMER MARKWARDT
BROTHERS GARAGE

APPENDIX

C

GROUNDWATER SAMPLING LOGS

Cardno
Shaping the Future
6611 Bay Circle, Suite 220, Norcross, GA 30071
Phone: (678) 421-0080

GROUNDWATER SAMPLING – FIELD DATA SHEET

SITE INFORMATION

Facility: Former Markwardt Bros. Garage
Project Number: CHILOQ100
Location: Chiloquin, Oregon
Date Started: 8.18.21
Date Completed: 1
Sample ID #: TMW-1

WELL INFORMATION

Well ID: TMW-1
Casing Diameter: 1"
TOC Elevation:
Total Well Depth:
Depth to Water:
GW Elevation:

WEATHER CONDITIONS

Weather Conditions (Circle): Clear Rain Windy Cloudy Hot Cold
Air Temperature:

VOLUME CALCULATIONS

Total Well Depth 13.0 Ft.
Depth to Water 10.51 Ft.
Water Column (WC): 2.49 Ft.
(Well Volume = WC x CF)
1 Well Volume: 0.10 Gal.
3 Well Volume: 0.30 Gal.

Conversion Factors (WC to Gallons)
CF 2-inch = 0.163
CF 4-inch = 0.652
CF 6-inch = 1.468

Time:	1100	1105	1110	1115	1120	1125
Purge Volume (gal.):	0.20	0.20	0.20	0.20	0.20	0.20
Total Volume (gal.):	0.20	0.40	0.60	0.80	1.00	1.20
pH:	6.90	6.70	6.63	6.57	6.55	6.54
Conductivity (µs/cm):	184.6	183.5	183.9	183.4	182.6	182.4
Temperature (°C):	11.6	11.8	11.9	12.0	12.0	12.0
Turbidity (NTU):	448.56	259.67	140.09	130.5	126.4	98.74
Dissolved Oxygen (mg/L):	4.11	4.00	3.85	3.69	3.64	3.60
Depth to Water (Ft.):						

SAMPLE INFORMATION

Sampled By: Ashton Smithwick
Time: 1130

Additional Comments

Cardno
Shaping the Future
6611 Bay Circle, Suite 220, Norcross, GA 30071
Phone: (678) 421-0080

GROUNDWATER SAMPLING – FIELD DATA SHEET

SITE INFORMATION

Facility: Former Markwardt Bros. Garage
Project Number: CHILOQ100
Location: Chiloquin, Oregon
Date Started: 8/18/21
Date Completed: 1
Sample ID #: TMW-2

WELL INFORMATION

Well ID: TMW-2
Casing Diameter: 1"
TOC Elevation:
Total Well Depth:
Depth to Water: 10.12 - TOC 10.15 - To Concrete
GW Elevation: 14.47 - TOC 14.51 - TOConcrete

WEATHER CONDITIONS

Weather Conditions (Circle): (Clear) Rain Windy Cloudy Hot (Cold)
Air Temperature: 45.0

VOLUME CALCULATIONS

Total Well Depth	14.47	Ft.
Depth to Water	10.11	Ft.
Water Column (WC):	4.36	Ft.
(Well Volume = WC x CF)		
1 Well Volume:	0.18	Gal.
3 Well Volume:	0.54	Gal.

Conversion Factors (WC to Gallons)

CF 2-inch = 0.163

CF 4-inch = 0.652

CF 6-inch = 1.468

Time:	0840	0845	0850	0855	0900	0905
Purge Volume (gal.):	0	0.20	0.20	0.20	0.20	0.20
Total Volume (gal.):	0	0.20	0.40	0.60	0.80	1.00
pH:	7.50	7.11	6.88	6.77	6.76	6.72
Conductivity (µs/cm):	117.5	116.5	115.6	115.2	114.1	114.3
Temperature (°C):	12.0	11.9	12.0	11.9	11.9	11.9
Turbidity (NTU):	-	3,003.67	1,749.30	1,256.28	1,041.40	692.34
Dissolved Oxygen (mg/L):	6.26	6.33	6.55	6.74	6.75	6.73
Depth to Water (Ft.):						

SAMPLE INFORMATION

Sampled By: Ashton Smithwick
Time: 0910

M Additional Comments: High turbidity
RCRA metals (dissolved) on hold
13 bottles.

Cardno
Shaping the Future
6611 Bay Circle, Suite 220, Norcross, GA 30071
Phone: (678) 421-0080

GROUNDWATER SAMPLING – FIELD DATA SHEET

SITE INFORMATION

Facility: Former Markwardt Bros. Garage
Project Number: CHILOQ100
Location: Chiloquin, Oregon
Date Started: 8.18.21
Date Completed: "
Sample ID #: TMW-3

WELL INFORMATION

Well ID: TMW-3
Casing Diameter: 1"
TOC Elevation:
Total Well Depth: 11.43 TOC
Depth to Water: 9.59 TOC
GW Elevation:

WEATHER CONDITIONS

Weather Conditions (Circle): Clear Rain Windy (Cloudy) Hot Cold
Air Temperature: 85°

VOLUME CALCULATIONS

Total Well Depth 11.43 Ft.
Depth to Water 9.59 Ft.
Water Column (WC): 1.84 Ft.
(Well Volume = WC x CF)
1 Well Volume: 0.08 Gal.
3 Well Volume: 0.24 Gal.

Conversion Factors (WC to Gallons)
CF 2-inch = 0.163
CF 4-inch = 0.652
CF 6-inch = 1.468

Time:	1305	1310	1315	1320	1325	
Purge Volume (gal.):	0	0.20	0.20	0.20	0.20	
Total Volume (gal.):	0	0.20	0.40	0.60	0.80	
pH:	7.01	6.83	6.73	6.69	6.67	
Conductivity (µs/cm):	286.6	278.0	275.9	274.4	272.9	
Temperature (°C):	10.5	10.4	10.5	10.5	10.5	
Turbidity (NTU):	535.21	272.56	139.72	74.80	64.07	
Dissolved Oxygen (mg/L):	3.89	3.56	4.11	4.06	4.03	
Depth to Water (Ft.):						

SAMPLE INFORMATION

Sampled By: Ashton Smithwick
Time: 1330

Additional Comments: TMW-3 DUP -1335 (VOC)

Cardno
Shaping the Future
6611 Bay Circle, Suite 220, Norcross, GA 30071
Phone: (678) 421-0080

GROUNDWATER SAMPLING – FIELD DATA SHEET

SITE INFORMATION

Facility: Former Markwardt Bros. Garage
Project Number: CHILOQ100
Location: Chiloquin, Oregon
Date Started: 8.18.21
Date Completed: 1
Sample ID #: TMW-4

WELL INFORMATION

Well ID: TMW-4
Casing Diameter: 1"
TOC Elevation:
Total Well Depth: 14.8
Depth to Water: 10.62
GW Elevation:

WEATHER CONDITIONS

Weather Conditions (Circle): Clear Rain (Windy) (Cloudy) Hot Cold
Air Temperature:

VOLUME CALCULATIONS

Total Well Depth 14.80 Ft.
Depth to Water 10.62 Ft.
Water Column (WC): 4.18 Ft.
(Well Volume = WC x CF)
1 Well Volume: 0.17 Gal.
3 Well Volume: 0.51 Gal.

Conversion Factors (WC to Gallons)
CF 2-inch = 0.163
CF 4-inch = 0.652
CF 6-inch = 1.468

Time:	1215	1220	1225	1230	1235	
Purge Volume (gal.):	0	0.2	0.2	0.2	0.2	
Total Volume (gal.):	0	0.2	0.4	0.6	0.8	
pH:	7.36	7.23	7.09	6.99	6.95	
Conductivity (µs/cm):	288.2	261.1	254.1	254.2	254.8	
Temperature (°C):	10.4	10.2	10.3	10.3	10.4	
Turbidity (NTU):	454.08	215.37	352.55	40.06	33.96	
Dissolved Oxygen (mg/L):	3.96	4.05	4.22	4.38	4.41	
Depth to Water (Ft.):						

SAMPLE INFORMATION

Sampled By: Ashton Smithwick
Time: 1240

Additional Comments

Cardno
Shaping the Future
6611 Bay Circle, Suite 220, Norcross, GA 30071
Phone: (678) 421-0080

GROUNDWATER SAMPLING – FIELD DATA SHEET

SITE INFORMATION

Facility: Former Markwardt Bros. Garage
Project Number: CHILOQ100
Location: Chiloquin, Oregon
Date Started: 8.18.21
Date Completed: 1
Sample ID #: TMW-5

WELL INFORMATION

Well ID: TMW-5
Casing Diameter: 1"
TOC Elevation:
Total Well Depth: 14.48 TOC 13.28 TO crete
Depth to Water: 11.35 TOC 10.08 TO crete
GW Elevation:

WEATHER CONDITIONS

Weather Conditions (Circle): (Clear) Rain Windy Cloudy Hot Cold
Air Temperature: 60°

VOLUME CALCULATIONS

Total Well Depth 13.28 Ft.
Depth to Water 10.08 Ft.
Water Column (WC): 3.20 Ft.
(Well Volume = WC x CF)
1 Well Volume: 0.13 Gal.
3 Well Volume: 0.39 Gal.

Conversion Factors (WC to Gallons)
CF 2-inch = 0.163
CF 4-inch = 0.652
CF 6-inch = 1.468

Time:	0950	0955	1000	1005	10:10	1015
Purge Volume (gal.):	~~0950~~ 0	0.2	0.2	0.2	0.2	0.2
Total Volume (gal.):	0	0.2	0.4	0.6	0.6	0.6
pH:	8.31	7.04	6.81	6.62	6.51	6.46
Conductivity (µs/cm):	229.9	183.8	185.3	184.9	184.6	183.0
Temperature (°C):	12.7	14.6	12.6	12.7	12.7	12.7
Turbidity (NTU):	813.81	607.13	525.04	422.67	362.09	330.33
Dissolved Oxygen (mg/L):	8.74	6.97	6.40	5.82	5.41	5.17
Depth to Water (Ft.):						

SAMPLE INFORMATION

Sampled By: Ashton Smithwick
Time: 1020

Additional Comments

FORMER MARKWARDT
BROTHERS GARAGE

APPENDIX

D

LABORATORY ANALYTICAL REPORT(S)

ANALYTICAL REPORT

September 03, 2021

Cardno - Peachtree Corners, GA

Sample Delivery Group:	L1393384
Samples Received:	08/20/2021
Project Number:	CHILOQIOU
Description:	Klamath Falls - Chiloquin, OR

Report To: William Smithwick
6611 Bay Circle
Suite 220
Peachtree Corners, GA 30071

Entire Report Reviewed By:

Jeff Carr
Project Manager

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

TABLE OF CONTENTS

B-5 L1393384-01 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 12:10 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:17	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:33	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:38	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729247	51.7	08/17/21 12:10	08/26/21 10:47	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	2.22	08/17/21 12:10	08/25/21 17:01	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 16:50	CAG	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1729626	1	08/27/21 10:13	08/28/21 20:11	AMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1729325	1	08/26/21 02:20	08/26/21 11:28	TMM	Mt. Juliet, TN

B-6 L1393384-02 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 14:55 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:20	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:36	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:41	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729247	56.3	08/17/21 14:55	08/26/21 11:09	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	2.25	08/17/21 14:55	08/25/21 17:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 20:52	CAG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	5	08/30/21 22:05	09/01/21 19:35	CAG	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1729626	1	08/27/21 10:13	08/28/21 20:20	AMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1729325	1	08/26/21 02:20	08/26/21 13:55	TMM	Mt. Juliet, TN

B-7 L1393384-03 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 14:25 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:22	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:39	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:44	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729247	61.3	08/17/21 14:25	08/26/21 11:31	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	2.21	08/17/21 14:25	08/25/21 17:39	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 20:25	CAG	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1729626	1	08/27/21 10:13	08/28/21 21:12	AMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1729325	1	08/26/21 02:20	08/26/21 13:34	TMM	Mt. Juliet, TN

B-1 L1393384-04 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 16:50 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:25	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:41	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:47	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729247	40.5	08/17/21 16:50	08/26/21 11:53	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	1.58	08/17/21 16:50	08/25/21 17:59	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 19:45	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1729325	1	08/26/21 02:20	08/26/21 12:52	TMM	Mt. Juliet, TN

B-8 L1393384-05 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 15:40 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:28	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:49	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:50	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729501	48.3	08/17/21 15:40	08/26/21 06:44	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	1.91	08/17/21 15:40	08/25/21 18:18	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 17:17	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1729325	1	08/26/21 02:20	08/26/21 12:31	TMM	Mt. Juliet, TN

B-9 L1393384-06 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 14:00 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:35	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:52	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:53	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729501	52	08/17/21 14:00	08/26/21 07:06	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	2.17	08/17/21 14:00	08/25/21 18:37	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 19:32	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1729325	1	08/26/21 02:20	08/26/21 13:13	TMM	Mt. Juliet, TN

B-2 L1393384-07 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 11:15 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:38	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 08:51	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:10	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729501	45	08/17/21 11:15	08/26/21 08:32	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	1.77	08/17/21 11:15	08/25/21 18:57	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	09/02/21 14:36	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1730358	1	08/28/21 13:00	08/29/21 01:36	BJP	Mt. Juliet, TN

B-3 L1393384-08 Solid

Collected by: A. Smithwick | Collected date/time: 08/17/21 10:00 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:40	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:55	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:56	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729501	56.5	08/17/21 10:00	08/26/21 08:54	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	2.18	08/17/21 10:00	08/25/21 19:16	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 20:39	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1730358	1	08/28/21 13:00	08/29/21 03:39	BJP	Mt. Juliet, TN

B-4 L1393384-09 Solid

Collected by: A. Smithwick
Collected date/time: 08/17/21 10:40
Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730124	1	08/30/21 09:19	08/30/21 09:25	CMK	Mt. Juliet, TN
Mercury by Method 7471B	WG1729091	1	08/25/21 10:09	08/25/21 19:43	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/26/21 09:57	KMG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728695	1	08/25/21 01:47	08/27/21 06:59	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729501	42.8	08/17/21 10:40	08/26/21 09:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	1.64	08/17/21 10:40	08/25/21 19:35	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731367	1	08/30/21 22:05	08/31/21 19:59	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1730358	1	08/28/21 13:00	08/28/21 21:42	BJP	Mt. Juliet, TN

B-6 DUP L1393384-10 Solid

Collected by: A. Smithwick
Collected date/time: 08/17/21 15:00
Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1730126	1	08/30/21 09:08	08/30/21 09:16	CMK	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729245	2.18	08/17/21 15:00	08/25/21 19:55	JAH	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	68.1		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0587	1	08/25/2021 19:17	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.94	1	08/26/2021 09:33	WG1728695
Barium	202		0.734	1	08/26/2021 09:33	WG1728695
Cadmium	ND		0.734	1	08/26/2021 09:33	WG1728695
Chromium	24.0		1.47	1	08/26/2021 09:33	WG1728695
Lead	2.11		0.734	1	08/26/2021 09:33	WG1728695
Selenium	ND		2.94	1	08/27/2021 06:38	WG1728695
Silver	ND		1.47	1	08/26/2021 09:33	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		8.76	51.7	08/26/2021 10:47	WG1729247
(S) a,a,a-Trifluorotoluene(FID)	*93.0*		*77.0-120*		*08/26/2021 10:47*	WG1729247

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.186	2.22	08/25/2021 17:01	WG1729245
Acrylonitrile	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
Benzene	ND		0.00373	2.22	08/25/2021 17:01	WG1729245
Bromobenzene	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
Bromodichloromethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Bromoform	ND		0.0932	2.22	08/25/2021 17:01	WG1729245
Bromomethane	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
n-Butylbenzene	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
sec-Butylbenzene	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
tert-Butylbenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
Carbon tetrachloride	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
Chlorobenzene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Chlorodibromomethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Chloroethane	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
Chloroform	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Chloromethane	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
2-Chlorotoluene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
4-Chlorotoluene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0932	2.22	08/25/2021 17:01	WG1729245
1,2-Dibromoethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Dibromomethane	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,2-Dichlorobenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,3-Dichlorobenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,4-Dichlorobenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
Dichlorodifluoromethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,1-Dichloroethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,2-Dichloroethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
cis-1,2-Dichloroethene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
trans-1,2-Dichloroethene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,2-Dichloropropane	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,1-Dichloropropene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,3-Dichloropropane	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
cis-1,3-Dichloropropene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
trans-1,3-Dichloropropene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
2,2-Dichloropropane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Di-isopropyl ether	ND		0.00373	2.22	08/25/2021 17:01	WG1729245
Ethylbenzene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Hexachloro-1,3-butadiene	ND		0.0932	2.22	08/25/2021 17:01	WG1729245
Isopropylbenzene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
p-Isopropyltoluene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
2-Butanone (MEK)	ND		0.373	2.22	08/25/2021 17:01	WG1729245
Methylene Chloride	ND		0.0932	2.22	08/25/2021 17:01	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0932	2.22	08/25/2021 17:01	WG1729245
Methyl tert-butyl ether	ND		0.00373	2.22	08/25/2021 17:01	WG1729245
Naphthalene	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
n-Propylbenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
Styrene	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Tetrachloroethene	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Toluene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,2,3-Trichlorobenzene	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
1,2,4-Trichlorobenzene	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
1,1,1-Trichloroethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,1,2-Trichloroethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
Trichloroethene	ND		0.00373	2.22	08/25/2021 17:01	WG1729245
Trichlorofluoromethane	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,2,3-Trichloropropane	ND		0.0467	2.22	08/25/2021 17:01	WG1729245
1,2,4-Trimethylbenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
1,2,3-Trimethylbenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
Vinyl chloride	ND		0.00932	2.22	08/25/2021 17:01	WG1729245
1,3,5-Trimethylbenzene	ND		0.0186	2.22	08/25/2021 17:01	WG1729245
Xylenes, Total	ND		0.0242	2.22	08/25/2021 17:01	WG1729245
(S) Toluene-d8	*98.3*		*75.0-131*		*08/25/2021 17:01*	WG1729245
(S) 4-Bromofluorobenzene	*93.0*		*67.0-138*		*08/25/2021 17:01*	WG1729245
(S) 1,2-Dichloroethane-d4	*89.6*		*70.0-130*		*08/25/2021 17:01*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.87	1	08/31/2021 16:50	WG1731367
Residual Range Organics (RRO)	ND		14.7	1	08/31/2021 16:50	WG1731367
(S) o-Terphenyl	*47.6*		*18.0-148*		*08/31/2021 16:50*	WG1731367

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0499	1	08/28/2021 20:11	WG1729626
PCB 1221	ND		0.0499	1	08/28/2021 20:11	WG1729626
PCB 1232	ND		0.0499	1	08/28/2021 20:11	WG1729626
PCB 1242	ND		0.0499	1	08/28/2021 20:11	WG1729626
PCB 1248	ND		0.0250	1	08/28/2021 20:11	WG1729626
PCB 1254	ND		0.0250	1	08/28/2021 20:11	WG1729626
PCB 1260	ND		0.0250	1	08/28/2021 20:11	WG1729626
(S) Decachlorobiphenyl	*84.6*		*10.0-135*		*08/28/2021 20:11*	WG1729626
(S) Tetrachloro-m-xylene	*92.8*		*10.0-139*		*08/28/2021 20:11*	WG1729626

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Acenaphthylene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Anthracene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Benzidine	ND		2.45	1	08/26/2021 11:28	WG1729325
Benzo(a)anthracene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Benzo(b)fluoranthene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Benzo(k)fluoranthene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Benzo(g,h,i)perylene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Benzo(a)pyrene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Bis(2-chlorethoxy)methane	ND		0.489	1	08/26/2021 11:28	WG1729325
Bis(2-chloroethyl)ether	ND		0.489	1	08/26/2021 11:28	WG1729325
2,2-Oxybis(1-Chloropropane)	ND		0.489	1	08/26/2021 11:28	WG1729325
4-Bromophenyl-phenylether	ND		0.489	1	08/26/2021 11:28	WG1729325
2-Chloronaphthalene	ND		0.0489	1	08/26/2021 11:28	WG1729325
4-Chlorophenyl-phenylether	ND		0.489	1	08/26/2021 11:28	WG1729325
Chrysene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Dibenz(a,h)anthracene	ND		0.0489	1	08/26/2021 11:28	WG1729325
1,2-Dichlorobenzene	ND		0.489	1	08/26/2021 11:28	WG1729325
1,3-Dichlorobenzene	ND		0.489	1	08/26/2021 11:28	WG1729325
1,4-Dichlorobenzene	ND		0.489	1	08/26/2021 11:28	WG1729325
3,3-Dichlorobenzidine	ND		0.489	1	08/26/2021 11:28	WG1729325
2,4-Dinitrotoluene	ND		0.489	1	08/26/2021 11:28	WG1729325
2,6-Dinitrotoluene	ND		0.489	1	08/26/2021 11:28	WG1729325
Fluoranthene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Fluorene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Hexachlorobenzene	ND		0.489	1	08/26/2021 11:28	WG1729325
Hexachloro-1,3-butadiene	ND		0.489	1	08/26/2021 11:28	WG1729325
Hexachlorocyclopentadiene	ND	C3	0.489	1	08/26/2021 11:28	WG1729325
Hexachloroethane	ND		0.489	1	08/26/2021 11:28	WG1729325
Indeno(1,2,3-cd)pyrene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Isophorone	ND		0.489	1	08/26/2021 11:28	WG1729325
Naphthalene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Nitrobenzene	ND		0.489	1	08/26/2021 11:28	WG1729325
n-Nitrosodimethylamine	ND		0.489	1	08/26/2021 11:28	WG1729325
n-Nitrosodiphenylamine	ND		0.489	1	08/26/2021 11:28	WG1729325
n-Nitrosodi-n-propylamine	ND		0.489	1	08/26/2021 11:28	WG1729325
Phenanthrene	ND		0.0489	1	08/26/2021 11:28	WG1729325
Benzylbutyl phthalate	ND		0.489	1	08/26/2021 11:28	WG1729325
Bis(2-ethylhexyl)phthalate	ND		0.489	1	08/26/2021 11:28	WG1729325
Di-n-butyl phthalate	ND		0.489	1	08/26/2021 11:28	WG1729325
Diethyl phthalate	ND		0.489	1	08/26/2021 11:28	WG1729325
Dimethyl phthalate	ND		0.489	1	08/26/2021 11:28	WG1729325
Di-n-octyl phthalate	ND		0.489	1	08/26/2021 11:28	WG1729325

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Pyrene	ND		0.0489	1	08/26/2021 11:28	WG1729325
1,2,4-Trichlorobenzene	ND		0.489	1	08/26/2021 11:28	WG1729325
4-Chloro-3-methylphenol	ND		0.489	1	08/26/2021 11:28	WG1729325
2-Chlorophenol	ND		0.489	1	08/26/2021 11:28	WG1729325
2,4-Dichlorophenol	ND		0.489	1	08/26/2021 11:28	WG1729325
2,4-Dimethylphenol	ND		0.489	1	08/26/2021 11:28	WG1729325
4,6-Dinitro-2-methylphenol	ND		0.489	1	08/26/2021 11:28	WG1729325
2,4-Dinitrophenol	ND		0.489	1	08/26/2021 11:28	WG1729325
2-Nitrophenol	ND		0.489	1	08/26/2021 11:28	WG1729325
4-Nitrophenol	ND		0.489	1	08/26/2021 11:28	WG1729325
Pentachlorophenol	ND		0.489	1	08/26/2021 11:28	WG1729325
Phenol	ND		0.489	1	08/26/2021 11:28	WG1729325
2,4,6-Trichlorophenol	ND		0.489	1	08/26/2021 11:28	WG1729325
(S) 2-Fluorophenol	*39.2*		*12.0-120*		*08/26/2021 11:28*	WG1729325
(S) Phenol-d5	*37.3*		*10.0-120*		*08/26/2021 11:28*	WG1729325
(S) Nitrobenzene-d5	*43.2*		*10.0-122*		*08/26/2021 11:28*	WG1729325
(S) 2-Fluorobiphenyl	*42.6*		*15.0-120*		*08/26/2021 11:28*	WG1729325
(S) 2,4,6-Tribromophenol	*46.8*		*10.0-127*		*08/26/2021 11:28*	WG1729325
(S) p-Terphenyl-d14	*37.7*		*10.0-120*		*08/26/2021 11:28*	WG1729325

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.5		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0537	1	08/25/2021 19:20	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.69	1	08/26/2021 09:36	WG1728695
Barium	156		0.671	1	08/26/2021 09:36	WG1728695
Cadmium	ND		0.671	1	08/26/2021 09:36	WG1728695
Chromium	15.8		1.34	1	08/26/2021 09:36	WG1728695
Lead	36.8		0.671	1	08/26/2021 09:36	WG1728695
Selenium	ND		2.69	1	08/27/2021 06:41	WG1728695
Silver	ND		1.34	1	08/26/2021 09:36	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		8.42	56.3	08/26/2021 11:09	WG1729247
(S) a,a,a-Trifluorotoluene(FID)	*93.7*		*77.0-120*		*08/26/2021 11:09*	WG1729247

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.169	2.25	08/25/2021 17:20	WG1729245
Acrylonitrile	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
Benzene	ND		0.00336	2.25	08/25/2021 17:20	WG1729245
Bromobenzene	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
Bromodichloromethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Bromoform	ND		0.0841	2.25	08/25/2021 17:20	WG1729245
Bromomethane	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
n-Butylbenzene	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
sec-Butylbenzene	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
tert-Butylbenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
Carbon tetrachloride	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
Chlorobenzene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Chlorodibromomethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Chloroethane	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
Chloroform	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Chloromethane	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
2-Chlorotoluene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
4-Chlorotoluene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0841	2.25	08/25/2021 17:20	WG1729245
1,2-Dibromoethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Dibromomethane	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,2-Dichlorobenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,3-Dichlorobenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,4-Dichlorobenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
Dichlorodifluoromethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,1-Dichloroethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,2-Dichloroethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
cis-1,2-Dichloroethene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
trans-1,2-Dichloroethene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,2-Dichloropropane	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,1-Dichloropropene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,3-Dichloropropane	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
cis-1,3-Dichloropropene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
trans-1,3-Dichloropropene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
2,2-Dichloropropane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Di-isopropyl ether	ND		0.00336	2.25	08/25/2021 17:20	WG1729245
Ethylbenzene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Hexachloro-1,3-butadiene	ND		0.0841	2.25	08/25/2021 17:20	WG1729245
Isopropylbenzene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
p-Isopropyltoluene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
2-Butanone (MEK)	ND		0.336	2.25	08/25/2021 17:20	WG1729245
Methylene Chloride	ND		0.0841	2.25	08/25/2021 17:20	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0841	2.25	08/25/2021 17:20	WG1729245
Methyl tert-butyl ether	ND		0.00336	2.25	08/25/2021 17:20	WG1729245
Naphthalene	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
n-Propylbenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
Styrene	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Tetrachloroethene	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Toluene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,2,3-Trichlorobenzene	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
1,2,4-Trichlorobenzene	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
1,1,1-Trichloroethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,1,2-Trichloroethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
Trichloroethene	ND		0.00336	2.25	08/25/2021 17:20	WG1729245
Trichlorofluoromethane	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,2,3-Trichloropropane	ND		0.0420	2.25	08/25/2021 17:20	WG1729245
1,2,4-Trimethylbenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
1,2,3-Trimethylbenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
Vinyl chloride	ND		0.00841	2.25	08/25/2021 17:20	WG1729245
1,3,5-Trimethylbenzene	ND		0.0169	2.25	08/25/2021 17:20	WG1729245
Xylenes, Total	ND		0.0218	2.25	08/25/2021 17:20	WG1729245
(S) Toluene-d8	*103*		*75.0-131*		*08/25/2021 17:20*	WG1729245
(S) 4-Bromofluorobenzene	*93.3*		*67.0-138*		*08/25/2021 17:20*	WG1729245
(S) 1,2-Dichloroethane-d4	*88.4*		*70.0-130*		*08/25/2021 17:20*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	111	J3 J6	5.37	1	08/31/2021 20:52	WG1731367
Residual Range Organics (RRO)	564		67.1	5	09/01/2021 19:35	WG1731367
(S) o-Terphenyl	*46.5*		*18.0-148*		*08/31/2021 20:52*	WG1731367
(S) o-Terphenyl	*54.1*		*18.0-148*		*09/01/2021 19:35*	WG1731367

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0456	1	08/28/2021 20:20	WG1729626
PCB 1221	ND		0.0456	1	08/28/2021 20:20	WG1729626
PCB 1232	ND		0.0456	1	08/28/2021 20:20	WG1729626
PCB 1242	ND		0.0456	1	08/28/2021 20:20	WG1729626
PCB 1248	ND		0.0228	1	08/28/2021 20:20	WG1729626
PCB 1254	ND		0.0228	1	08/28/2021 20:20	WG1729626
PCB 1260	ND		0.0228	1	08/28/2021 20:20	WG1729626
(S) Decachlorobiphenyl	*74.5*		*10.0-135*		*08/28/2021 20:20*	WG1729626
(S) Tetrachloro-m-xylene	*83.6*		*10.0-139*		*08/28/2021 20:20*	WG1729626

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Acenaphthylene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Anthracene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Benzidine	ND		2.24	1	08/26/2021 13:55	WG1729325
Benzo(a)anthracene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Benzo(b)fluoranthene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Benzo(k)fluoranthene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Benzo(g,h,i)perylene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Benzo(a)pyrene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Bis(2-chlorethoxy)methane	ND		0.447	1	08/26/2021 13:55	WG1729325
Bis(2-chloroethyl)ether	ND		0.447	1	08/26/2021 13:55	WG1729325
2,2-Oxybis(1-Chloropropane)	ND		0.447	1	08/26/2021 13:55	WG1729325
4-Bromophenyl-phenylether	ND		0.447	1	08/26/2021 13:55	WG1729325
2-Chloronaphthalene	ND		0.0447	1	08/26/2021 13:55	WG1729325
4-Chlorophenyl-phenylether	ND		0.447	1	08/26/2021 13:55	WG1729325
Chrysene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Dibenz(a,h)anthracene	ND		0.0447	1	08/26/2021 13:55	WG1729325
1,2-Dichlorobenzene	ND		0.447	1	08/26/2021 13:55	WG1729325
1,3-Dichlorobenzene	ND		0.447	1	08/26/2021 13:55	WG1729325
1,4-Dichlorobenzene	ND		0.447	1	08/26/2021 13:55	WG1729325
3,3-Dichlorobenzidine	ND		0.447	1	08/26/2021 13:55	WG1729325
2,4-Dinitrotoluene	ND		0.447	1	08/26/2021 13:55	WG1729325
2,6-Dinitrotoluene	ND		0.447	1	08/26/2021 13:55	WG1729325
Fluoranthene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Fluorene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Hexachlorobenzene	ND		0.447	1	08/26/2021 13:55	WG1729325
Hexachloro-1,3-butadiene	ND		0.447	1	08/26/2021 13:55	WG1729325
Hexachlorocyclopentadiene	ND	C3	0.447	1	08/26/2021 13:55	WG1729325
Hexachloroethane	ND		0.447	1	08/26/2021 13:55	WG1729325
Indeno(1,2,3-cd)pyrene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Isophorone	ND		0.447	1	08/26/2021 13:55	WG1729325
Naphthalene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Nitrobenzene	ND		0.447	1	08/26/2021 13:55	WG1729325
n-Nitrosodimethylamine	ND		0.447	1	08/26/2021 13:55	WG1729325
n-Nitrosodiphenylamine	ND		0.447	1	08/26/2021 13:55	WG1729325
n-Nitrosodi-n-propylamine	ND		0.447	1	08/26/2021 13:55	WG1729325
Phenanthrene	ND		0.0447	1	08/26/2021 13:55	WG1729325
Benzylbutyl phthalate	ND		0.447	1	08/26/2021 13:55	WG1729325
Bis(2-ethylhexyl)phthalate	ND		0.447	1	08/26/2021 13:55	WG1729325
Di-n-butyl phthalate	ND		0.447	1	08/26/2021 13:55	WG1729325
Diethyl phthalate	ND		0.447	1	08/26/2021 13:55	WG1729325
Dimethyl phthalate	ND		0.447	1	08/26/2021 13:55	WG1729325
Di-n-octyl phthalate	ND		0.447	1	08/26/2021 13:55	WG1729325

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

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Pyrene	ND		0.0447	1	08/26/2021 13:55	WG1729325
1,2,4-Trichlorobenzene	ND		0.447	1	08/26/2021 13:55	WG1729325
4-Chloro-3-methylphenol	ND		0.447	1	08/26/2021 13:55	WG1729325
2-Chlorophenol	ND		0.447	1	08/26/2021 13:55	WG1729325
2,4-Dichlorophenol	ND		0.447	1	08/26/2021 13:55	WG1729325
2,4-Dimethylphenol	ND		0.447	1	08/26/2021 13:55	WG1729325
4,6-Dinitro-2-methylphenol	ND		0.447	1	08/26/2021 13:55	WG1729325
2,4-Dinitrophenol	ND		0.447	1	08/26/2021 13:55	WG1729325
2-Nitrophenol	ND		0.447	1	08/26/2021 13:55	WG1729325
4-Nitrophenol	ND		0.447	1	08/26/2021 13:55	WG1729325
Pentachlorophenol	ND		0.447	1	08/26/2021 13:55	WG1729325
Phenol	ND		0.447	1	08/26/2021 13:55	WG1729325
2,4,6-Trichlorophenol	ND		0.447	1	08/26/2021 13:55	WG1729325
(S) 2-Fluorophenol	*48.2*		*12.0-120*		*08/26/2021 13:55*	WG1729325
(S) Phenol-d5	*46.1*		*10.0-120*		*08/26/2021 13:55*	WG1729325
(S) Nitrobenzene-d5	*53.5*		*10.0-122*		*08/26/2021 13:55*	WG1729325
(S) 2-Fluorobiphenyl	*59.2*		*15.0-120*		*08/26/2021 13:55*	WG1729325
(S) 2,4,6-Tribromophenol	*64.4*		*10.0-127*		*08/26/2021 13:55*	WG1729325
(S) p-Terphenyl-d14	*44.7*		*10.0-120*		*08/26/2021 13:55*	WG1729325

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.5		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0544	1	08/25/2021 19:22	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.72	1	08/26/2021 09:39	WG1728695
Barium	199		0.680	1	08/26/2021 09:39	WG1728695
Cadmium	ND		0.680	1	08/26/2021 09:39	WG1728695
Chromium	14.1		1.36	1	08/26/2021 09:39	WG1728695
Lead	58.9		0.680	1	08/26/2021 09:39	WG1728695
Selenium	ND		2.72	1	08/27/2021 06:44	WG1728695
Silver	ND		1.36	1	08/26/2021 09:39	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		9.24	61.3	08/26/2021 11:31	WG1729247
(S) a,a,a-Trifluorotoluene(FID)	*92.8*		*77.0-120*		*08/26/2021 11:31*	WG1729247

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.169	2.21	08/25/2021 17:39	WG1729245
Acrylonitrile	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
Benzene	ND		0.00337	2.21	08/25/2021 17:39	WG1729245
Bromobenzene	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
Bromodichloromethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Bromoform	ND		0.0843	2.21	08/25/2021 17:39	WG1729245
Bromomethane	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
n-Butylbenzene	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
sec-Butylbenzene	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
tert-Butylbenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
Carbon tetrachloride	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
Chlorobenzene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Chlorodibromomethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Chloroethane	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
Chloroform	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Chloromethane	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
2-Chlorotoluene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
4-Chlorotoluene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0843	2.21	08/25/2021 17:39	WG1729245
1,2-Dibromoethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Dibromomethane	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,2-Dichlorobenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,3-Dichlorobenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,4-Dichlorobenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
Dichlorodifluoromethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,1-Dichloroethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,2-Dichloroethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
cis-1,2-Dichloroethene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
trans-1,2-Dichloroethene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,2-Dichloropropane	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,1-Dichloropropene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,3-Dichloropropane	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
cis-1,3-Dichloropropene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
trans-1,3-Dichloropropene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
2,2-Dichloropropane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Di-isopropyl ether	ND		0.00337	2.21	08/25/2021 17:39	WG1729245
Ethylbenzene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Hexachloro-1,3-butadiene	ND		0.0843	2.21	08/25/2021 17:39	WG1729245
Isopropylbenzene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
p-Isopropyltoluene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
2-Butanone (MEK)	ND		0.337	2.21	08/25/2021 17:39	WG1729245
Methylene Chloride	ND		0.0843	2.21	08/25/2021 17:39	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0843	2.21	08/25/2021 17:39	WG1729245
Methyl tert-butyl ether	ND		0.00337	2.21	08/25/2021 17:39	WG1729245
Naphthalene	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
n-Propylbenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
Styrene	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Tetrachloroethene	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Toluene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,2,3-Trichlorobenzene	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
1,2,4-Trichlorobenzene	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
1,1,1-Trichloroethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,1,2-Trichloroethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
Trichloroethene	ND		0.00337	2.21	08/25/2021 17:39	WG1729245
Trichlorofluoromethane	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,2,3-Trichloropropane	ND		0.0421	2.21	08/25/2021 17:39	WG1729245
1,2,4-Trimethylbenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
1,2,3-Trimethylbenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
Vinyl chloride	ND		0.00843	2.21	08/25/2021 17:39	WG1729245
1,3,5-Trimethylbenzene	ND		0.0169	2.21	08/25/2021 17:39	WG1729245
Xylenes, Total	ND		0.0219	2.21	08/25/2021 17:39	WG1729245
(S) Toluene-d8	*98.6*		*75.0-131*		*08/25/2021 17:39*	WG1729245
(S) 4-Bromofluorobenzene	*91.9*		*67.0-138*		*08/25/2021 17:39*	WG1729245
(S) 1,2-Dichloroethane-d4	*89.3*		*70.0-130*		*08/25/2021 17:39*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.44	1	08/31/2021 20:25	WG1731367
Residual Range Organics (RRO)	ND		13.6	1	08/31/2021 20:25	WG1731367
(S) o-Terphenyl	*45.0*		*18.0-148*		*08/31/2021 20:25*	WG1731367

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.0463	1	08/28/2021 21:12	WG1729626
PCB 1221	ND		0.0463	1	08/28/2021 21:12	WG1729626
PCB 1232	ND		0.0463	1	08/28/2021 21:12	WG1729626
PCB 1242	ND		0.0463	1	08/28/2021 21:12	WG1729626
PCB 1248	ND		0.0231	1	08/28/2021 21:12	WG1729626
PCB 1254	ND		0.0231	1	08/28/2021 21:12	WG1729626
PCB 1260	ND		0.0231	1	08/28/2021 21:12	WG1729626
(S) Decachlorobiphenyl	*90.0*		*10.0-135*		*08/28/2021 21:12*	WG1729626
(S) Tetrachloro-m-xylene	*88.7*		*10.0-139*		*08/28/2021 21:12*	WG1729626

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Acenaphthylene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Anthracene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Benzidine	ND		2.27	1	08/26/2021 13:34	WG1729325
Benzo(a)anthracene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Benzo(b)fluoranthene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Benzo(k)fluoranthene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Benzo(g,h,i)perylene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Benzo(a)pyrene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Bis(2-chlorethoxy)methane	ND		0.453	1	08/26/2021 13:34	WG1729325
Bis(2-chloroethyl)ether	ND		0.453	1	08/26/2021 13:34	WG1729325
2,2-Oxybis(1-Chloropropane)	ND		0.453	1	08/26/2021 13:34	WG1729325
4-Bromophenyl-phenylether	ND		0.453	1	08/26/2021 13:34	WG1729325
2-Chloronaphthalene	ND		0.0453	1	08/26/2021 13:34	WG1729325
4-Chlorophenyl-phenylether	ND		0.453	1	08/26/2021 13:34	WG1729325
Chrysene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Dibenz(a,h)anthracene	ND		0.0453	1	08/26/2021 13:34	WG1729325
1,2-Dichlorobenzene	ND		0.453	1	08/26/2021 13:34	WG1729325
1,3-Dichlorobenzene	ND		0.453	1	08/26/2021 13:34	WG1729325
1,4-Dichlorobenzene	ND		0.453	1	08/26/2021 13:34	WG1729325
3,3-Dichlorobenzidine	ND		0.453	1	08/26/2021 13:34	WG1729325
2,4-Dinitrotoluene	ND		0.453	1	08/26/2021 13:34	WG1729325
2,6-Dinitrotoluene	ND		0.453	1	08/26/2021 13:34	WG1729325
Fluoranthene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Fluorene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Hexachlorobenzene	ND		0.453	1	08/26/2021 13:34	WG1729325
Hexachloro-1,3-butadiene	ND		0.453	1	08/26/2021 13:34	WG1729325
Hexachlorocyclopentadiene	ND	C3	0.453	1	08/26/2021 13:34	WG1729325
Hexachloroethane	ND		0.453	1	08/26/2021 13:34	WG1729325
Indeno(1,2,3-cd)pyrene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Isophorone	ND		0.453	1	08/26/2021 13:34	WG1729325
Naphthalene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Nitrobenzene	ND		0.453	1	08/26/2021 13:34	WG1729325
n-Nitrosodimethylamine	ND		0.453	1	08/26/2021 13:34	WG1729325
n-Nitrosodiphenylamine	ND		0.453	1	08/26/2021 13:34	WG1729325
n-Nitrosodi-n-propylamine	ND		0.453	1	08/26/2021 13:34	WG1729325
Phenanthrene	ND		0.0453	1	08/26/2021 13:34	WG1729325
Benzylbutyl phthalate	ND		0.453	1	08/26/2021 13:34	WG1729325
Bis(2-ethylhexyl)phthalate	ND		0.453	1	08/26/2021 13:34	WG1729325
Di-n-butyl phthalate	ND		0.453	1	08/26/2021 13:34	WG1729325
Diethyl phthalate	ND		0.453	1	08/26/2021 13:34	WG1729325
Dimethyl phthalate	ND		0.453	1	08/26/2021 13:34	WG1729325
Di-n-octyl phthalate	ND		0.453	1	08/26/2021 13:34	WG1729325

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Pyrene	ND		0.0453	1	08/26/2021 13:34	WG1729325
1,2,4-Trichlorobenzene	ND		0.453	1	08/26/2021 13:34	WG1729325
4-Chloro-3-methylphenol	ND		0.453	1	08/26/2021 13:34	WG1729325
2-Chlorophenol	ND		0.453	1	08/26/2021 13:34	WG1729325
2,4-Dichlorophenol	ND		0.453	1	08/26/2021 13:34	WG1729325
2,4-Dimethylphenol	ND		0.453	1	08/26/2021 13:34	WG1729325
4,6-Dinitro-2-methylphenol	ND		0.453	1	08/26/2021 13:34	WG1729325
2,4-Dinitrophenol	ND		0.453	1	08/26/2021 13:34	WG1729325
2-Nitrophenol	ND		0.453	1	08/26/2021 13:34	WG1729325
4-Nitrophenol	ND		0.453	1	08/26/2021 13:34	WG1729325
Pentachlorophenol	ND		0.453	1	08/26/2021 13:34	WG1729325
Phenol	ND		0.453	1	08/26/2021 13:34	WG1729325
2,4,6-Trichlorophenol	ND		0.453	1	08/26/2021 13:34	WG1729325
(S) 2-Fluorophenol	*45.1*		*12.0-120*		*08/26/2021 13:34*	WG1729325
(S) Phenol-d5	*39.4*		*10.0-120*		*08/26/2021 13:34*	WG1729325
(S) Nitrobenzene-d5	*50.0*		*10.0-122*		*08/26/2021 13:34*	WG1729325
(S) 2-Fluorobiphenyl	*51.5*		*15.0-120*		*08/26/2021 13:34*	WG1729325
(S) 2,4,6-Tribromophenol	*56.1*		*10.0-127*		*08/26/2021 13:34*	WG1729325
(S) p-Terphenyl-d14	*42.6*		*10.0-120*		*08/26/2021 13:34*	WG1729325

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	70.2		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0569	1	08/25/2021 19:25	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.85	1	08/26/2021 09:41	WG1728695
Barium	198		0.712	1	08/26/2021 09:41	WG1728695
Cadmium	ND		0.712	1	08/26/2021 09:41	WG1728695
Chromium	26.8		1.42	1	08/26/2021 09:41	WG1728695
Lead	1.85		0.712	1	08/26/2021 09:41	WG1728695
Selenium	ND		2.85	1	08/27/2021 06:47	WG1728695
Silver	ND		1.42	1	08/26/2021 09:41	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		6.83	40.5	08/26/2021 11:53	WG1729247
(S) a,a,a-Trifluorotoluene(FID)	*93.5*		*77.0-120*		*08/26/2021 11:53*	WG1729247

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.134	1.58	08/25/2021 17:59	WG1729245
Acrylonitrile	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
Benzene	ND		0.00267	1.58	08/25/2021 17:59	WG1729245
Bromobenzene	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
Bromodichloromethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Bromoform	ND		0.0668	1.58	08/25/2021 17:59	WG1729245
Bromomethane	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
n-Butylbenzene	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
sec-Butylbenzene	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
tert-Butylbenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
Carbon tetrachloride	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
Chlorobenzene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Chlorodibromomethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Chloroethane	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
Chloroform	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Chloromethane	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
2-Chlorotoluene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
4-Chlorotoluene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0668	1.58	08/25/2021 17:59	WG1729245
1,2-Dibromoethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Dibromomethane	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,2-Dichlorobenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,3-Dichlorobenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,4-Dichlorobenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
Dichlorodifluoromethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,1-Dichloroethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,2-Dichloroethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
cis-1,2-Dichloroethene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
trans-1,2-Dichloroethene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,2-Dichloropropane	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,1-Dichloropropene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,3-Dichloropropane	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
cis-1,3-Dichloropropene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
trans-1,3-Dichloropropene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
2,2-Dichloropropane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Di-isopropyl ether	ND		0.00267	1.58	08/25/2021 17:59	WG1729245
Ethylbenzene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Hexachloro-1,3-butadiene	ND		0.0668	1.58	08/25/2021 17:59	WG1729245
Isopropylbenzene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
p-Isopropyltoluene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
2-Butanone (MEK)	ND		0.267	1.58	08/25/2021 17:59	WG1729245
Methylene Chloride	ND		0.0668	1.58	08/25/2021 17:59	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0668	1.58	08/25/2021 17:59	WG1729245
Methyl tert-butyl ether	ND		0.00267	1.58	08/25/2021 17:59	WG1729245
Naphthalene	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
n-Propylbenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
Styrene	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Tetrachloroethene	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Toluene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,2,3-Trichlorobenzene	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
1,2,4-Trichlorobenzene	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
1,1,1-Trichloroethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,1,2-Trichloroethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
Trichloroethene	ND		0.00267	1.58	08/25/2021 17:59	WG1729245
Trichlorofluoromethane	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,2,3-Trichloropropane	ND		0.0335	1.58	08/25/2021 17:59	WG1729245
1,2,4-Trimethylbenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
1,2,3-Trimethylbenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
Vinyl chloride	ND		0.00668	1.58	08/25/2021 17:59	WG1729245
1,3,5-Trimethylbenzene	ND		0.0134	1.58	08/25/2021 17:59	WG1729245
Xylenes, Total	ND		0.0174	1.58	08/25/2021 17:59	WG1729245
(S) Toluene-d8	*102*		*75.0-131*		*08/25/2021 17:59*	WG1729245
(S) 4-Bromofluorobenzene	*91.7*		*67.0-138*		*08/25/2021 17:59*	WG1729245
(S) 1,2-Dichloroethane-d4	*88.4*		*70.0-130*		*08/25/2021 17:59*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.69	1	08/31/2021 19:45	WG1731367
Residual Range Organics (RRO)	ND		14.2	1	08/31/2021 19:45	WG1731367
(S) o-Terphenyl	*53.0*		*18.0-148*		*08/31/2021 19:45*	WG1731367

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Acenaphthylene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Anthracene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Benzidine	ND		2.38	1	08/26/2021 12:52	WG1729325
Benzo(a)anthracene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Benzo(b)fluoranthene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Benzo(k)fluoranthene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Benzo(g,h,i)perylene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Benzo(a)pyrene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Bis(2-chlorethoxy)methane	ND		0.474	1	08/26/2021 12:52	WG1729325
Bis(2-chloroethyl)ether	ND		0.474	1	08/26/2021 12:52	WG1729325
2,2-Oxybis(1-Chloropropane)	ND		0.474	1	08/26/2021 12:52	WG1729325
4-Bromophenyl-phenylether	ND		0.474	1	08/26/2021 12:52	WG1729325
2-Chloronaphthalene	ND		0.0474	1	08/26/2021 12:52	WG1729325
4-Chlorophenyl-phenylether	ND		0.474	1	08/26/2021 12:52	WG1729325
Chrysene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Dibenz(a,h)anthracene	ND		0.0474	1	08/26/2021 12:52	WG1729325
1,2-Dichlorobenzene	ND		0.474	1	08/26/2021 12:52	WG1729325
1,3-Dichlorobenzene	ND		0.474	1	08/26/2021 12:52	WG1729325
1,4-Dichlorobenzene	ND		0.474	1	08/26/2021 12:52	WG1729325
3,3-Dichlorobenzidine	ND		0.474	1	08/26/2021 12:52	WG1729325
2,4-Dinitrotoluene	ND		0.474	1	08/26/2021 12:52	WG1729325
2,6-Dinitrotoluene	ND		0.474	1	08/26/2021 12:52	WG1729325
Fluoranthene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Fluorene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Hexachlorobenzene	ND		0.474	1	08/26/2021 12:52	WG1729325
Hexachloro-1,3-butadiene	ND		0.474	1	08/26/2021 12:52	WG1729325
Hexachlorocyclopentadiene	ND	C3	0.474	1	08/26/2021 12:52	WG1729325
Hexachloroethane	ND		0.474	1	08/26/2021 12:52	WG1729325
Indeno(1,2,3-cd)pyrene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Isophorone	ND		0.474	1	08/26/2021 12:52	WG1729325
Naphthalene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Nitrobenzene	ND		0.474	1	08/26/2021 12:52	WG1729325
n-Nitrosodimethylamine	ND		0.474	1	08/26/2021 12:52	WG1729325
n-Nitrosodiphenylamine	ND		0.474	1	08/26/2021 12:52	WG1729325
n-Nitrosodi-n-propylamine	ND		0.474	1	08/26/2021 12:52	WG1729325
Phenanthrene	ND		0.0474	1	08/26/2021 12:52	WG1729325
Benzylbutyl phthalate	ND		0.474	1	08/26/2021 12:52	WG1729325
Bis(2-ethylhexyl)phthalate	ND		0.474	1	08/26/2021 12:52	WG1729325
Di-n-butyl phthalate	ND		0.474	1	08/26/2021 12:52	WG1729325
Diethyl phthalate	ND		0.474	1	08/26/2021 12:52	WG1729325
Dimethyl phthalate	ND		0.474	1	08/26/2021 12:52	WG1729325
Di-n-octyl phthalate	ND		0.474	1	08/26/2021 12:52	WG1729325
Pyrene	ND		0.0474	1	08/26/2021 12:52	WG1729325
1,2,4-Trichlorobenzene	ND		0.474	1	08/26/2021 12:52	WG1729325
4-Chloro-3-methylphenol	ND		0.474	1	08/26/2021 12:52	WG1729325
2-Chlorophenol	ND		0.474	1	08/26/2021 12:52	WG1729325
2,4-Dichlorophenol	ND		0.474	1	08/26/2021 12:52	WG1729325
2,4-Dimethylphenol	ND		0.474	1	08/26/2021 12:52	WG1729325
4,6-Dinitro-2-methylphenol	ND		0.474	1	08/26/2021 12:52	WG1729325
2,4-Dinitrophenol	ND		0.474	1	08/26/2021 12:52	WG1729325
2-Nitrophenol	ND		0.474	1	08/26/2021 12:52	WG1729325
4-Nitrophenol	ND		0.474	1	08/26/2021 12:52	WG1729325
Pentachlorophenol	ND		0.474	1	08/26/2021 12:52	WG1729325
Phenol	ND		0.474	1	08/26/2021 12:52	WG1729325
2,4,6-Trichlorophenol	ND		0.474	1	08/26/2021 12:52	WG1729325

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorophenol	*48.6*		*12.0-120*		*08/26/2021 12:52*	WG1729325
(S) Phenol-d5	*43.9*		*10.0-120*		*08/26/2021 12:52*	WG1729325
(S) Nitrobenzene-d5	*48.3*		*10.0-122*		*08/26/2021 12:52*	WG1729325
(S) 2-Fluorobiphenyl	*51.1*		*15.0-120*		*08/26/2021 12:52*	WG1729325
(S) 2,4,6-Tribromophenol	*55.0*		*10.0-127*		*08/26/2021 12:52*	WG1729325
(S) p-Terphenyl-d14	*46.2*		*10.0-120*		*08/26/2021 12:52*	WG1729325

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.0		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0548	1	08/25/2021 19:28	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.74	1	08/26/2021 09:49	WG1728695
Barium	170		0.685	1	08/26/2021 09:49	WG1728695
Cadmium	ND		0.685	1	08/26/2021 09:49	WG1728695
Chromium	18.7		1.37	1	08/26/2021 09:49	WG1728695
Lead	1.20		0.685	1	08/26/2021 09:49	WG1728695
Selenium	ND		2.74	1	08/27/2021 06:50	WG1728695
Silver	ND		1.37	1	08/26/2021 09:49	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		7.54	48.3	08/26/2021 06:44	WG1729501
(S) a,a,a-Trifluorotoluene(FID)	*114*		*77.0-120*		*08/26/2021 06:44*	WG1729501

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.149	1.91	08/25/2021 18:18	WG1729245
Acrylonitrile	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
Benzene	ND		0.00298	1.91	08/25/2021 18:18	WG1729245
Bromobenzene	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
Bromodichloromethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Bromoform	ND		0.0747	1.91	08/25/2021 18:18	WG1729245
Bromomethane	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
n-Butylbenzene	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
sec-Butylbenzene	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
tert-Butylbenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
Carbon tetrachloride	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
Chlorobenzene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Chlorodibromomethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Chloroethane	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
Chloroform	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Chloromethane	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
2-Chlorotoluene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
4-Chlorotoluene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0747	1.91	08/25/2021 18:18	WG1729245
1,2-Dibromoethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Dibromomethane	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,2-Dichlorobenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,3-Dichlorobenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,4-Dichlorobenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
Dichlorodifluoromethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,1-Dichloroethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,2-Dichloroethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
cis-1,2-Dichloroethene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
trans-1,2-Dichloroethene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,2-Dichloropropane	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,1-Dichloropropene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,3-Dichloropropane	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
cis-1,3-Dichloropropene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
trans-1,3-Dichloropropene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
2,2-Dichloropropane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Di-isopropyl ether	ND		0.00298	1.91	08/25/2021 18:18	WG1729245
Ethylbenzene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Hexachloro-1,3-butadiene	ND		0.0747	1.91	08/25/2021 18:18	WG1729245
Isopropylbenzene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
p-Isopropyltoluene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
2-Butanone (MEK)	ND		0.298	1.91	08/25/2021 18:18	WG1729245
Methylene Chloride	ND		0.0747	1.91	08/25/2021 18:18	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0747	1.91	08/25/2021 18:18	WG1729245
Methyl tert-butyl ether	ND		0.00298	1.91	08/25/2021 18:18	WG1729245
Naphthalene	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
n-Propylbenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
Styrene	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Tetrachloroethene	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Toluene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,2,3-Trichlorobenzene	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
1,2,4-Trichlorobenzene	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
1,1,1-Trichloroethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,1,2-Trichloroethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
Trichloroethene	ND		0.00298	1.91	08/25/2021 18:18	WG1729245
Trichlorofluoromethane	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,2,3-Trichloropropane	ND		0.0373	1.91	08/25/2021 18:18	WG1729245
1,2,4-Trimethylbenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
1,2,3-Trimethylbenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
Vinyl chloride	ND		0.00747	1.91	08/25/2021 18:18	WG1729245
1,3,5-Trimethylbenzene	ND		0.0149	1.91	08/25/2021 18:18	WG1729245
Xylenes, Total	ND		0.0194	1.91	08/25/2021 18:18	WG1729245
(S) Toluene-d8	*100*		*75.0-131*		*08/25/2021 18:18*	WG1729245
(S) 4-Bromofluorobenzene	*91.1*		*67.0-138*		*08/25/2021 18:18*	WG1729245
(S) 1,2-Dichloroethane-d4	*88.1*		*70.0-130*		*08/25/2021 18:18*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.48	1	08/31/2021 17:17	WG1731367
Residual Range Organics (RRO)	ND		13.7	1	08/31/2021 17:17	WG1731367
(S) o-Terphenyl	*32.5*		*18.0-148*		*08/31/2021 17:17*	WG1731367

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Acenaphthylene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Anthracene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Benzidine	ND		2.29	1	08/26/2021 12:31	WG1729325
Benzo(a)anthracene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Benzo(b)fluoranthene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Benzo(k)fluoranthene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Benzo(g,h,i)perylene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Benzo(a)pyrene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Bis(2-chlorethoxy)methane	ND		0.456	1	08/26/2021 12:31	WG1729325
Bis(2-chloroethyl)ether	ND		0.456	1	08/26/2021 12:31	WG1729325
2,2-Oxybis(1-Chloropropane)	ND		0.456	1	08/26/2021 12:31	WG1729325
4-Bromophenyl-phenylether	ND		0.456	1	08/26/2021 12:31	WG1729325
2-Chloronaphthalene	ND		0.0456	1	08/26/2021 12:31	WG1729325
4-Chlorophenyl-phenylether	ND		0.456	1	08/26/2021 12:31	WG1729325
Chrysene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Dibenz(a,h)anthracene	ND		0.0456	1	08/26/2021 12:31	WG1729325
1,2-Dichlorobenzene	ND		0.456	1	08/26/2021 12:31	WG1729325
1,3-Dichlorobenzene	ND		0.456	1	08/26/2021 12:31	WG1729325
1,4-Dichlorobenzene	ND		0.456	1	08/26/2021 12:31	WG1729325
3,3-Dichlorobenzidine	ND		0.456	1	08/26/2021 12:31	WG1729325
2,4-Dinitrotoluene	ND		0.456	1	08/26/2021 12:31	WG1729325
2,6-Dinitrotoluene	ND		0.456	1	08/26/2021 12:31	WG1729325
Fluoranthene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Fluorene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Hexachlorobenzene	ND		0.456	1	08/26/2021 12:31	WG1729325
Hexachloro-1,3-butadiene	ND		0.456	1	08/26/2021 12:31	WG1729325
Hexachlorocyclopentadiene	ND	C3	0.456	1	08/26/2021 12:31	WG1729325
Hexachloroethane	ND		0.456	1	08/26/2021 12:31	WG1729325
Indeno(1,2,3-cd)pyrene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Isophorone	ND		0.456	1	08/26/2021 12:31	WG1729325
Naphthalene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Nitrobenzene	ND		0.456	1	08/26/2021 12:31	WG1729325
n-Nitrosodimethylamine	ND		0.456	1	08/26/2021 12:31	WG1729325
n-Nitrosodiphenylamine	ND		0.456	1	08/26/2021 12:31	WG1729325
n-Nitrosodi-n-propylamine	ND		0.456	1	08/26/2021 12:31	WG1729325
Phenanthrene	ND		0.0456	1	08/26/2021 12:31	WG1729325
Benzylbutyl phthalate	ND		0.456	1	08/26/2021 12:31	WG1729325
Bis(2-ethylhexyl)phthalate	ND		0.456	1	08/26/2021 12:31	WG1729325
Di-n-butyl phthalate	ND		0.456	1	08/26/2021 12:31	WG1729325
Diethyl phthalate	ND		0.456	1	08/26/2021 12:31	WG1729325
Dimethyl phthalate	ND		0.456	1	08/26/2021 12:31	WG1729325
Di-n-octyl phthalate	ND		0.456	1	08/26/2021 12:31	WG1729325
Pyrene	ND		0.0456	1	08/26/2021 12:31	WG1729325
1,2,4-Trichlorobenzene	ND		0.456	1	08/26/2021 12:31	WG1729325
4-Chloro-3-methylphenol	ND		0.456	1	08/26/2021 12:31	WG1729325
2-Chlorophenol	ND		0.456	1	08/26/2021 12:31	WG1729325
2,4-Dichlorophenol	ND		0.456	1	08/26/2021 12:31	WG1729325
2,4-Dimethylphenol	ND		0.456	1	08/26/2021 12:31	WG1729325
4,6-Dinitro-2-methylphenol	ND		0.456	1	08/26/2021 12:31	WG1729325
2,4-Dinitrophenol	ND		0.456	1	08/26/2021 12:31	WG1729325
2-Nitrophenol	ND		0.456	1	08/26/2021 12:31	WG1729325
4-Nitrophenol	ND		0.456	1	08/26/2021 12:31	WG1729325
Pentachlorophenol	ND		0.456	1	08/26/2021 12:31	WG1729325
Phenol	ND		0.456	1	08/26/2021 12:31	WG1729325
2,4,6-Trichlorophenol	ND		0.456	1	08/26/2021 12:31	WG1729325

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorophenol	*39.9*		*12.0-120*		*08/26/2021 12:31*	WG1729325
(S) Phenol-d5	*38.7*		*10.0-120*		*08/26/2021 12:31*	WG1729325
(S) Nitrobenzene-d5	*45.3*		*10.0-122*		*08/26/2021 12:31*	WG1729325
(S) 2-Fluorobiphenyl	*43.7*		*15.0-120*		*08/26/2021 12:31*	WG1729325
(S) 2,4,6-Tribromophenol	*48.9*		*10.0-127*		*08/26/2021 12:31*	WG1729325
(S) p-Terphenyl-d14	*46.2*		*10.0-120*		*08/26/2021 12:31*	WG1729325

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.5		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0537	1	08/25/2021 19:35	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.68	1	08/26/2021 09:52	WG1728695
Barium	195		0.671	1	08/26/2021 09:52	WG1728695
Cadmium	ND		0.671	1	08/26/2021 09:52	WG1728695
Chromium	17.4		1.34	1	08/26/2021 09:52	WG1728695
Lead	14.0		0.671	1	08/26/2021 09:52	WG1728695
Selenium	ND		2.68	1	08/27/2021 06:53	WG1728695
Silver	ND		1.34	1	08/26/2021 09:52	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		7.83	52	08/26/2021 07:06	WG1729501
(S) a,a,a-Trifluorotoluene(FID)	*112*		*77.0-120*		*08/26/2021 07:06*	WG1729501

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.163	2.17	08/25/2021 18:37	WG1729245
Acrylonitrile	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
Benzene	ND		0.00325	2.17	08/25/2021 18:37	WG1729245
Bromobenzene	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
Bromodichloromethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Bromoform	ND		0.0814	2.17	08/25/2021 18:37	WG1729245
Bromomethane	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
n-Butylbenzene	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
sec-Butylbenzene	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
tert-Butylbenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
Carbon tetrachloride	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
Chlorobenzene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Chlorodibromomethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Chloroethane	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
Chloroform	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Chloromethane	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
2-Chlorotoluene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
4-Chlorotoluene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0814	2.17	08/25/2021 18:37	WG1729245
1,2-Dibromoethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Dibromomethane	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,2-Dichlorobenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,3-Dichlorobenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,4-Dichlorobenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
Dichlorodifluoromethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,1-Dichloroethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,2-Dichloroethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
cis-1,2-Dichloroethene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
trans-1,2-Dichloroethene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,2-Dichloropropane	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,1-Dichloropropene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,3-Dichloropropane	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
cis-1,3-Dichloropropene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
trans-1,3-Dichloropropene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
2,2-Dichloropropane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Di-isopropyl ether	ND		0.00325	2.17	08/25/2021 18:37	WG1729245
Ethylbenzene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Hexachloro-1,3-butadiene	ND		0.0814	2.17	08/25/2021 18:37	WG1729245
Isopropylbenzene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
p-Isopropyltoluene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
2-Butanone (MEK)	ND		0.325	2.17	08/25/2021 18:37	WG1729245
Methylene Chloride	ND		0.0814	2.17	08/25/2021 18:37	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0814	2.17	08/25/2021 18:37	WG1729245
Methyl tert-butyl ether	ND		0.00325	2.17	08/25/2021 18:37	WG1729245
Naphthalene	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
n-Propylbenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
Styrene	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Tetrachloroethene	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Toluene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,2,3-Trichlorobenzene	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
1,2,4-Trichlorobenzene	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
1,1,1-Trichloroethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,1,2-Trichloroethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
Trichloroethene	ND		0.00325	2.17	08/25/2021 18:37	WG1729245
Trichlorofluoromethane	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,2,3-Trichloropropane	ND		0.0406	2.17	08/25/2021 18:37	WG1729245
1,2,4-Trimethylbenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
1,2,3-Trimethylbenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
Vinyl chloride	ND		0.00814	2.17	08/25/2021 18:37	WG1729245
1,3,5-Trimethylbenzene	ND		0.0163	2.17	08/25/2021 18:37	WG1729245
Xylenes, Total	ND		0.0211	2.17	08/25/2021 18:37	WG1729245
(S) Toluene-d8	*99.9*		*75.0-131*		*08/25/2021 18:37*	WG1729245
(S) 4-Bromofluorobenzene	*93.5*		*67.0-138*		*08/25/2021 18:37*	WG1729245
(S) 1,2-Dichloroethane-d4	*86.6*		*70.0-130*		*08/25/2021 18:37*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.37	1	08/31/2021 19:32	WG1731367
Residual Range Organics (RRO)	ND		13.4	1	08/31/2021 19:32	WG1731367
(S) o-Terphenyl	*51.7*		*18.0-148*		*08/31/2021 19:32*	WG1731367

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Acenaphthylene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Anthracene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Benzidine	ND		2.24	1	08/26/2021 13:13	WG1729325
Benzo(a)anthracene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Benzo(b)fluoranthene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Benzo(k)fluoranthene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Benzo(g,h,i)perylene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Benzo(a)pyrene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Bis(2-chlorethoxy)methane	ND		0.447	1	08/26/2021 13:13	WG1729325
Bis(2-chloroethyl)ether	ND		0.447	1	08/26/2021 13:13	WG1729325
2,2-Oxybis(1-Chloropropane)	ND		0.447	1	08/26/2021 13:13	WG1729325
4-Bromophenyl-phenylether	ND		0.447	1	08/26/2021 13:13	WG1729325
2-Chloronaphthalene	ND		0.0447	1	08/26/2021 13:13	WG1729325
4-Chlorophenyl-phenylether	ND		0.447	1	08/26/2021 13:13	WG1729325
Chrysene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Dibenz(a,h)anthracene	ND		0.0447	1	08/26/2021 13:13	WG1729325
1,2-Dichlorobenzene	ND		0.447	1	08/26/2021 13:13	WG1729325
1,3-Dichlorobenzene	ND		0.447	1	08/26/2021 13:13	WG1729325
1,4-Dichlorobenzene	ND		0.447	1	08/26/2021 13:13	WG1729325
3,3-Dichlorobenzidine	ND		0.447	1	08/26/2021 13:13	WG1729325
2,4-Dinitrotoluene	ND		0.447	1	08/26/2021 13:13	WG1729325
2,6-Dinitrotoluene	ND		0.447	1	08/26/2021 13:13	WG1729325
Fluoranthene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Fluorene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Hexachlorobenzene	ND		0.447	1	08/26/2021 13:13	WG1729325
Hexachloro-1,3-butadiene	ND		0.447	1	08/26/2021 13:13	WG1729325
Hexachlorocyclopentadiene	ND	C3	0.447	1	08/26/2021 13:13	WG1729325
Hexachloroethane	ND		0.447	1	08/26/2021 13:13	WG1729325
Indeno(1,2,3-cd)pyrene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Isophorone	ND		0.447	1	08/26/2021 13:13	WG1729325
Naphthalene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Nitrobenzene	ND		0.447	1	08/26/2021 13:13	WG1729325
n-Nitrosodimethylamine	ND		0.447	1	08/26/2021 13:13	WG1729325
n-Nitrosodiphenylamine	ND		0.447	1	08/26/2021 13:13	WG1729325
n-Nitrosodi-n-propylamine	ND		0.447	1	08/26/2021 13:13	WG1729325
Phenanthrene	ND		0.0447	1	08/26/2021 13:13	WG1729325
Benzylbutyl phthalate	ND		0.447	1	08/26/2021 13:13	WG1729325
Bis(2-ethylhexyl)phthalate	ND		0.447	1	08/26/2021 13:13	WG1729325
Di-n-butyl phthalate	ND		0.447	1	08/26/2021 13:13	WG1729325
Diethyl phthalate	ND		0.447	1	08/26/2021 13:13	WG1729325
Dimethyl phthalate	ND		0.447	1	08/26/2021 13:13	WG1729325
Di-n-octyl phthalate	ND		0.447	1	08/26/2021 13:13	WG1729325
Pyrene	ND		0.0447	1	08/26/2021 13:13	WG1729325
1,2,4-Trichlorobenzene	ND		0.447	1	08/26/2021 13:13	WG1729325
4-Chloro-3-methylphenol	ND		0.447	1	08/26/2021 13:13	WG1729325
2-Chlorophenol	ND		0.447	1	08/26/2021 13:13	WG1729325
2,4-Dichlorophenol	ND		0.447	1	08/26/2021 13:13	WG1729325
2,4-Dimethylphenol	ND		0.447	1	08/26/2021 13:13	WG1729325
4,6-Dinitro-2-methylphenol	ND		0.447	1	08/26/2021 13:13	WG1729325
2,4-Dinitrophenol	ND		0.447	1	08/26/2021 13:13	WG1729325
2-Nitrophenol	ND		0.447	1	08/26/2021 13:13	WG1729325
4-Nitrophenol	ND		0.447	1	08/26/2021 13:13	WG1729325
Pentachlorophenol	ND		0.447	1	08/26/2021 13:13	WG1729325
Phenol	ND		0.447	1	08/26/2021 13:13	WG1729325
2,4,6-Trichlorophenol	ND		0.447	1	08/26/2021 13:13	WG1729325

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorophenol	*42.2*		*12.0-120*		*08/26/2021 13:13*	WG1729325
(S) Phenol-d5	*39.1*		*10.0-120*		*08/26/2021 13:13*	WG1729325
(S) Nitrobenzene-d5	*48.3*		*10.0-122*		*08/26/2021 13:13*	WG1729325
(S) 2-Fluorobiphenyl	*48.9*		*15.0-120*		*08/26/2021 13:13*	WG1729325
(S) 2,4,6-Tribromophenol	*47.5*		*10.0-127*		*08/26/2021 13:13*	WG1729325
(S) p-Terphenyl-d14	*42.5*		*10.0-120*		*08/26/2021 13:13*	WG1729325

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	71.6		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0558	1	08/25/2021 19:38	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.79	1	08/26/2021 08:51	WG1728695
Barium	182		0.698	1	08/26/2021 08:51	WG1728695
Cadmium	ND		0.698	1	08/26/2021 08:51	WG1728695
Chromium	18.0		1.40	1	08/26/2021 08:51	WG1728695
Lead	119		0.698	1	08/26/2021 08:51	WG1728695
Selenium	ND		2.79	1	08/27/2021 06:10	WG1728695
Silver	ND		1.40	1	08/26/2021 08:51	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		7.27	45	08/26/2021 08:32	WG1729501
(S) a,a,a-Trifluorotoluene(FID)	*112*		*77.0-120*		*08/26/2021 08:32*	WG1729501

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.143	1.77	08/25/2021 18:57	WG1729245
Acrylonitrile	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
Benzene	ND		0.00287	1.77	08/25/2021 18:57	WG1729245
Bromobenzene	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
Bromodichloromethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Bromoform	ND		0.0717	1.77	08/25/2021 18:57	WG1729245
Bromomethane	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
n-Butylbenzene	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
sec-Butylbenzene	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
tert-Butylbenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
Carbon tetrachloride	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
Chlorobenzene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Chlorodibromomethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Chloroethane	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
Chloroform	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Chloromethane	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
2-Chlorotoluene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
4-Chlorotoluene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0717	1.77	08/25/2021 18:57	WG1729245
1,2-Dibromoethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Dibromomethane	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,2-Dichlorobenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,3-Dichlorobenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,4-Dichlorobenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
Dichlorodifluoromethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,1-Dichloroethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,2-Dichloroethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
cis-1,2-Dichloroethene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
trans-1,2-Dichloroethene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,2-Dichloropropane	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,1-Dichloropropene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,3-Dichloropropane	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
cis-1,3-Dichloropropene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
trans-1,3-Dichloropropene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
2,2-Dichloropropane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Di-isopropyl ether	ND		0.00287	1.77	08/25/2021 18:57	WG1729245
Ethylbenzene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Hexachloro-1,3-butadiene	ND		0.0717	1.77	08/25/2021 18:57	WG1729245
Isopropylbenzene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
p-Isopropyltoluene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
2-Butanone (MEK)	ND		0.287	1.77	08/25/2021 18:57	WG1729245
Methylene Chloride	ND		0.0717	1.77	08/25/2021 18:57	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0717	1.77	08/25/2021 18:57	WG1729245
Methyl tert-butyl ether	ND		0.00287	1.77	08/25/2021 18:57	WG1729245
Naphthalene	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
n-Propylbenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
Styrene	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Tetrachloroethene	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Toluene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,2,3-Trichlorobenzene	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
1,2,4-Trichlorobenzene	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
1,1,1-Trichloroethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,1,2-Trichloroethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
Trichloroethene	ND		0.00287	1.77	08/25/2021 18:57	WG1729245
Trichlorofluoromethane	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,2,3-Trichloropropane	ND		0.0358	1.77	08/25/2021 18:57	WG1729245
1,2,4-Trimethylbenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
1,2,3-Trimethylbenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
Vinyl chloride	ND		0.00717	1.77	08/25/2021 18:57	WG1729245
1,3,5-Trimethylbenzene	ND		0.0143	1.77	08/25/2021 18:57	WG1729245
Xylenes, Total	ND		0.0186	1.77	08/25/2021 18:57	WG1729245
(S) Toluene-d8	*99.6*		*75.0-131*		*08/25/2021 18:57*	WG1729245
(S) 4-Bromofluorobenzene	*92.3*		*67.0-138*		*08/25/2021 18:57*	WG1729245
(S) 1,2-Dichloroethane-d4	*89.0*		*70.0-130*		*08/25/2021 18:57*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	13.0		5.58	1	09/02/2021 14:36	WG1731367
Residual Range Organics (RRO)	75.1		14.0	1	09/02/2021 14:36	WG1731367
(S) o-Terphenyl	*39.0*		*18.0-148*		*09/02/2021 14:36*	WG1731367

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Acenaphthylene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Anthracene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Benzidine	ND		2.33	1	08/29/2021 01:36	WG1730358
Benzo(a)anthracene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Benzo(b)fluoranthene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Benzo(k)fluoranthene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Benzo(g,h,i)perylene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Benzo(a)pyrene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Bis(2-chlorethoxy)methane	ND		0.465	1	08/29/2021 01:36	WG1730358
Bis(2-chloroethyl)ether	ND		0.465	1	08/29/2021 01:36	WG1730358
2,2-Oxybis(1-Chloropropane)	ND		0.465	1	08/29/2021 01:36	WG1730358
4-Bromophenyl-phenylether	ND		0.465	1	08/29/2021 01:36	WG1730358
2-Chloronaphthalene	ND		0.0465	1	08/29/2021 01:36	WG1730358
4-Chlorophenyl-phenylether	ND		0.465	1	08/29/2021 01:36	WG1730358
Chrysene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Dibenz(a,h)anthracene	ND		0.0465	1	08/29/2021 01:36	WG1730358
1,2-Dichlorobenzene	ND		0.465	1	08/29/2021 01:36	WG1730358
1,3-Dichlorobenzene	ND		0.465	1	08/29/2021 01:36	WG1730358
1,4-Dichlorobenzene	ND		0.465	1	08/29/2021 01:36	WG1730358
3,3-Dichlorobenzidine	ND		0.465	1	08/29/2021 01:36	WG1730358
2,4-Dinitrotoluene	ND		0.465	1	08/29/2021 01:36	WG1730358
2,6-Dinitrotoluene	ND		0.465	1	08/29/2021 01:36	WG1730358
Fluoranthene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Fluorene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Hexachlorobenzene	ND		0.465	1	08/29/2021 01:36	WG1730358
Hexachloro-1,3-butadiene	ND		0.465	1	08/29/2021 01:36	WG1730358
Hexachlorocyclopentadiene	ND	C3	0.465	1	08/29/2021 01:36	WG1730358
Hexachloroethane	ND		0.465	1	08/29/2021 01:36	WG1730358
Indeno(1,2,3-cd)pyrene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Isophorone	ND		0.465	1	08/29/2021 01:36	WG1730358
Naphthalene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Nitrobenzene	ND		0.465	1	08/29/2021 01:36	WG1730358
n-Nitrosodimethylamine	ND		0.465	1	08/29/2021 01:36	WG1730358
n-Nitrosodiphenylamine	ND		0.465	1	08/29/2021 01:36	WG1730358
n-Nitrosodi-n-propylamine	ND		0.465	1	08/29/2021 01:36	WG1730358
Phenanthrene	ND		0.0465	1	08/29/2021 01:36	WG1730358
Benzylbutyl phthalate	ND		0.465	1	08/29/2021 01:36	WG1730358
Bis(2-ethylhexyl)phthalate	ND		0.465	1	08/29/2021 01:36	WG1730358
Di-n-butyl phthalate	ND		0.465	1	08/29/2021 01:36	WG1730358
Diethyl phthalate	ND		0.465	1	08/29/2021 01:36	WG1730358
Dimethyl phthalate	ND		0.465	1	08/29/2021 01:36	WG1730358
Di-n-octyl phthalate	ND		0.465	1	08/29/2021 01:36	WG1730358
Pyrene	ND		0.0465	1	08/29/2021 01:36	WG1730358
1,2,4-Trichlorobenzene	ND		0.465	1	08/29/2021 01:36	WG1730358
4-Chloro-3-methylphenol	ND		0.465	1	08/29/2021 01:36	WG1730358
2-Chlorophenol	ND		0.465	1	08/29/2021 01:36	WG1730358
2,4-Dichlorophenol	ND		0.465	1	08/29/2021 01:36	WG1730358
2,4-Dimethylphenol	ND		0.465	1	08/29/2021 01:36	WG1730358
4,6-Dinitro-2-methylphenol	ND		0.465	1	08/29/2021 01:36	WG1730358
2,4-Dinitrophenol	ND		0.465	1	08/29/2021 01:36	WG1730358
2-Nitrophenol	ND		0.465	1	08/29/2021 01:36	WG1730358
4-Nitrophenol	ND		0.465	1	08/29/2021 01:36	WG1730358
Pentachlorophenol	ND		0.465	1	08/29/2021 01:36	WG1730358
Phenol	ND		0.465	1	08/29/2021 01:36	WG1730358
2,4,6-Trichlorophenol	ND		0.465	1	08/29/2021 01:36	WG1730358

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorophenol	*43.8*		*12.0-120*		*08/29/2021 01:36*	WG1730358
(S) Phenol-d5	*45.1*		*10.0-120*		*08/29/2021 01:36*	WG1730358
(S) Nitrobenzene-d5	*43.1*		*10.0-122*		*08/29/2021 01:36*	WG1730358
(S) 2-Fluorobiphenyl	*44.6*		*15.0-120*		*08/29/2021 01:36*	WG1730358
(S) 2,4,6-Tribromophenol	*54.5*		*10.0-127*		*08/29/2021 01:36*	WG1730358
(S) p-Terphenyl-d14	*58.8*		*10.0-120*		*08/29/2021 01:36*	WG1730358

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.2		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	0.0536		0.0505	1	08/25/2021 19:40	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.53	1	08/26/2021 09:55	WG1728695
Barium	183		0.631	1	08/26/2021 09:55	WG1728695
Cadmium	ND		0.631	1	08/26/2021 09:55	WG1728695
Chromium	13.9		1.26	1	08/26/2021 09:55	WG1728695
Lead	54.1		0.631	1	08/26/2021 09:55	WG1728695
Selenium	ND		2.53	1	08/27/2021 06:56	WG1728695
Silver	ND		1.26	1	08/26/2021 09:55	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		7.79	56.5	08/26/2021 08:54	WG1729501
(S) a,a,a-Trifluorotoluene(FID)	*113*		*77.0-120*		*08/26/2021 08:54*	WG1729501

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.151	2.18	08/25/2021 19:16	WG1729245
Acrylonitrile	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
Benzene	ND		0.00302	2.18	08/25/2021 19:16	WG1729245
Bromobenzene	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
Bromodichloromethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Bromoform	ND		0.0754	2.18	08/25/2021 19:16	WG1729245
Bromomethane	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
n-Butylbenzene	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
sec-Butylbenzene	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
tert-Butylbenzene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
Carbon tetrachloride	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
Chlorobenzene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Chlorodibromomethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Chloroethane	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
Chloroform	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Chloromethane	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
2-Chlorotoluene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
4-Chlorotoluene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0754	2.18	08/25/2021 19:16	WG1729245
1,2-Dibromoethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Dibromomethane	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
1,2-Dichlorobenzene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
1,3-Dichlorobenzene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
1,4-Dichlorobenzene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
Dichlorodifluoromethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,1-Dichloroethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,2-Dichloroethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
cis-1,2-Dichloroethene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
trans-1,2-Dichloroethene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
1,2-Dichloropropane	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
1,1-Dichloropropene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,3-Dichloropropane	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
cis-1,3-Dichloropropene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
trans-1,3-Dichloropropene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
2,2-Dichloropropane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Di-isopropyl ether	ND		0.00302	2.18	08/25/2021 19:16	WG1729245
Ethylbenzene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Hexachloro-1,3-butadiene	ND		0.0754	2.18	08/25/2021 19:16	WG1729245
Isopropylbenzene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
p-Isopropyltoluene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
2-Butanone (MEK)	ND		0.302	2.18	08/25/2021 19:16	WG1729245
Methylene Chloride	ND		0.0754	2.18	08/25/2021 19:16	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0754	2.18	08/25/2021 19:16	WG1729245
Methyl tert-butyl ether	ND		0.00302	2.18	08/25/2021 19:16	WG1729245
Naphthalene	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
n-Propylbenzene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
Styrene	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Tetrachloroethene	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Toluene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
1,2,3-Trichlorobenzene	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
1,2,4-Trichlorobenzene	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
1,1,1-Trichloroethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,1,2-Trichloroethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
Trichloroethene	ND		0.00302	2.18	08/25/2021 19:16	WG1729245
Trichlorofluoromethane	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,2,3-Trichloropropane	ND		0.0378	2.18	08/25/2021 19:16	WG1729245
1,2,4-Trimethylbenzene	0.0176		0.0151	2.18	08/25/2021 19:16	WG1729245
1,2,3-Trimethylbenzene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
Vinyl chloride	ND		0.00754	2.18	08/25/2021 19:16	WG1729245
1,3,5-Trimethylbenzene	ND		0.0151	2.18	08/25/2021 19:16	WG1729245
Xylenes, Total	0.0581		0.0196	2.18	08/25/2021 19:16	WG1729245
(S) Toluene-d8	*99.4*		*75.0-131*		*08/25/2021 19:16*	WG1729245
(S) 4-Bromofluorobenzene	*92.8*		*67.0-138*		*08/25/2021 19:16*	WG1729245
(S) 1,2-Dichloroethane-d4	*90.7*		*70.0-130*		*08/25/2021 19:16*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.05	1	08/31/2021 20:39	WG1731367
Residual Range Organics (RRO)	17.6		12.6	1	08/31/2021 20:39	WG1731367
(S) o-Terphenyl	*51.2*		*18.0-148*		*08/31/2021 20:39*	WG1731367

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Acenaphthylene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Anthracene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Benzidine	ND		2.11	1	08/29/2021 03:39	WG1730358
Benzo(a)anthracene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Benzo(b)fluoranthene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Benzo(k)fluoranthene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Benzo(g,h,i)perylene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Benzo(a)pyrene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Bis(2-chlorethoxy)methane	ND		0.421	1	08/29/2021 03:39	WG1730358
Bis(2-chloroethyl)ether	ND		0.421	1	08/29/2021 03:39	WG1730358
2,2-Oxybis(1-Chloropropane)	ND		0.421	1	08/29/2021 03:39	WG1730358
4-Bromophenyl-phenylether	ND		0.421	1	08/29/2021 03:39	WG1730358
2-Chloronaphthalene	ND		0.0421	1	08/29/2021 03:39	WG1730358
4-Chlorophenyl-phenylether	ND		0.421	1	08/29/2021 03:39	WG1730358
Chrysene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Dibenz(a,h)anthracene	ND		0.0421	1	08/29/2021 03:39	WG1730358
1,2-Dichlorobenzene	ND		0.421	1	08/29/2021 03:39	WG1730358
1,3-Dichlorobenzene	ND		0.421	1	08/29/2021 03:39	WG1730358
1,4-Dichlorobenzene	ND		0.421	1	08/29/2021 03:39	WG1730358
3,3-Dichlorobenzidine	ND		0.421	1	08/29/2021 03:39	WG1730358
2,4-Dinitrotoluene	ND		0.421	1	08/29/2021 03:39	WG1730358
2,6-Dinitrotoluene	ND		0.421	1	08/29/2021 03:39	WG1730358
Fluoranthene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Fluorene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Hexachlorobenzene	ND		0.421	1	08/29/2021 03:39	WG1730358
Hexachloro-1,3-butadiene	ND		0.421	1	08/29/2021 03:39	WG1730358
Hexachlorocyclopentadiene	ND	C3	0.421	1	08/29/2021 03:39	WG1730358
Hexachloroethane	ND		0.421	1	08/29/2021 03:39	WG1730358
Indeno(1,2,3-cd)pyrene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Isophorone	ND		0.421	1	08/29/2021 03:39	WG1730358
Naphthalene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Nitrobenzene	ND		0.421	1	08/29/2021 03:39	WG1730358
n-Nitrosodimethylamine	ND		0.421	1	08/29/2021 03:39	WG1730358
n-Nitrosodiphenylamine	ND		0.421	1	08/29/2021 03:39	WG1730358
n-Nitrosodi-n-propylamine	ND		0.421	1	08/29/2021 03:39	WG1730358
Phenanthrene	ND		0.0421	1	08/29/2021 03:39	WG1730358
Benzylbutyl phthalate	ND		0.421	1	08/29/2021 03:39	WG1730358
Bis(2-ethylhexyl)phthalate	ND		0.421	1	08/29/2021 03:39	WG1730358
Di-n-butyl phthalate	ND		0.421	1	08/29/2021 03:39	WG1730358
Diethyl phthalate	ND		0.421	1	08/29/2021 03:39	WG1730358
Dimethyl phthalate	ND		0.421	1	08/29/2021 03:39	WG1730358
Di-n-octyl phthalate	ND		0.421	1	08/29/2021 03:39	WG1730358
Pyrene	ND		0.0421	1	08/29/2021 03:39	WG1730358
1,2,4-Trichlorobenzene	ND		0.421	1	08/29/2021 03:39	WG1730358
4-Chloro-3-methylphenol	ND		0.421	1	08/29/2021 03:39	WG1730358
2-Chlorophenol	ND		0.421	1	08/29/2021 03:39	WG1730358
2,4-Dichlorophenol	ND		0.421	1	08/29/2021 03:39	WG1730358
2,4-Dimethylphenol	ND		0.421	1	08/29/2021 03:39	WG1730358
4,6-Dinitro-2-methylphenol	ND		0.421	1	08/29/2021 03:39	WG1730358
2,4-Dinitrophenol	ND		0.421	1	08/29/2021 03:39	WG1730358
2-Nitrophenol	ND		0.421	1	08/29/2021 03:39	WG1730358
4-Nitrophenol	ND		0.421	1	08/29/2021 03:39	WG1730358
Pentachlorophenol	ND		0.421	1	08/29/2021 03:39	WG1730358
Phenol	ND		0.421	1	08/29/2021 03:39	WG1730358
2,4,6-Trichlorophenol	ND		0.421	1	08/29/2021 03:39	WG1730358

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorophenol	*48.6*		*12.0-120*		*08/29/2021 03:39*	WG1730358
(S) Phenol-d5	*49.2*		*10.0-120*		*08/29/2021 03:39*	WG1730358
(S) Nitrobenzene-d5	*45.5*		*10.0-122*		*08/29/2021 03:39*	WG1730358
(S) 2-Fluorobiphenyl	*48.0*		*15.0-120*		*08/29/2021 03:39*	WG1730358
(S) 2,4,6-Tribromophenol	*59.8*		*10.0-127*		*08/29/2021 03:39*	WG1730358
(S) p-Terphenyl-d14	*60.1*		*10.0-120*		*08/29/2021 03:39*	WG1730358

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	73.2		1	08/30/2021 09:25	WG1730124

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Mercury	ND		0.0547	1	08/25/2021 19:43	WG1729091

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.73	1	08/26/2021 09:57	WG1728695
Barium	167		0.683	1	08/26/2021 09:57	WG1728695
Cadmium	ND		0.683	1	08/26/2021 09:57	WG1728695
Chromium	16.9		1.37	1	08/26/2021 09:57	WG1728695
Lead	4.35		0.683	1	08/26/2021 09:57	WG1728695
Selenium	ND		2.73	1	08/27/2021 06:59	WG1728695
Silver	ND		1.37	1	08/26/2021 09:57	WG1728695

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Gasoline Range Organics-NWTPH	ND		6.76	42.8	08/26/2021 09:15	WG1729501
(S) a,a,a-Trifluorotoluene(FID)	*114*		*77.0-120*		*08/26/2021 09:15*	WG1729501

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.130	1.64	08/25/2021 19:35	WG1729245
Acrylonitrile	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
Benzene	ND		0.00261	1.64	08/25/2021 19:35	WG1729245
Bromobenzene	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
Bromodichloromethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Bromoform	ND		0.0652	1.64	08/25/2021 19:35	WG1729245
Bromomethane	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
n-Butylbenzene	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
sec-Butylbenzene	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
tert-Butylbenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
Carbon tetrachloride	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
Chlorobenzene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Chlorodibromomethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Chloroethane	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
Chloroform	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Chloromethane	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
2-Chlorotoluene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
4-Chlorotoluene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0652	1.64	08/25/2021 19:35	WG1729245
1,2-Dibromoethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Dibromomethane	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,2-Dichlorobenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,3-Dichlorobenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,4-Dichlorobenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
Dichlorodifluoromethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,1-Dichloroethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,2-Dichloroethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
cis-1,2-Dichloroethene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
trans-1,2-Dichloroethene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,2-Dichloropropane	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,1-Dichloropropene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,3-Dichloropropane	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
cis-1,3-Dichloropropene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
trans-1,3-Dichloropropene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
2,2-Dichloropropane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Di-isopropyl ether	ND		0.00261	1.64	08/25/2021 19:35	WG1729245
Ethylbenzene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Hexachloro-1,3-butadiene	ND		0.0652	1.64	08/25/2021 19:35	WG1729245
Isopropylbenzene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
p-Isopropyltoluene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
2-Butanone (MEK)	ND		0.261	1.64	08/25/2021 19:35	WG1729245
Methylene Chloride	ND		0.0652	1.64	08/25/2021 19:35	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0652	1.64	08/25/2021 19:35	WG1729245
Methyl tert-butyl ether	ND		0.00261	1.64	08/25/2021 19:35	WG1729245
Naphthalene	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
n-Propylbenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
Styrene	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,1,2-Trichlorotrifluoroethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Tetrachloroethene	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Toluene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,2,3-Trichlorobenzene	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
1,2,4-Trichlorobenzene	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
1,1,1-Trichloroethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,1,2-Trichloroethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
Trichloroethene	ND		0.00261	1.64	08/25/2021 19:35	WG1729245
Trichlorofluoromethane	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,2,3-Trichloropropane	ND		0.0326	1.64	08/25/2021 19:35	WG1729245
1,2,4-Trimethylbenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
1,2,3-Trimethylbenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
Vinyl chloride	ND		0.00652	1.64	08/25/2021 19:35	WG1729245
1,3,5-Trimethylbenzene	ND		0.0130	1.64	08/25/2021 19:35	WG1729245
Xylenes, Total	ND		0.0170	1.64	08/25/2021 19:35	WG1729245
(S) Toluene-d8	*97.1*		*75.0-131*		*08/25/2021 19:35*	WG1729245
(S) 4-Bromofluorobenzene	*92.2*		*67.0-138*		*08/25/2021 19:35*	WG1729245
(S) 1,2-Dichloroethane-d4	*90.4*		*70.0-130*		*08/25/2021 19:35*	WG1729245

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		5.47	1	08/31/2021 19:59	WG1731367
Residual Range Organics (RRO)	ND		13.7	1	08/31/2021 19:59	WG1731367
(S) o-Terphenyl	*57.4*		*18.0-148*		*08/31/2021 19:59*	WG1731367

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Acenaphthylene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Anthracene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Benzidine	ND		2.28	1	08/28/2021 21:42	WG1730358
Benzo(a)anthracene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Benzo(b)fluoranthene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Benzo(k)fluoranthene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Benzo(g,h,i)perylene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Benzo(a)pyrene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Bis(2-chlorethoxy)methane	ND		0.455	1	08/28/2021 21:42	WG1730358
Bis(2-chloroethyl)ether	ND		0.455	1	08/28/2021 21:42	WG1730358
2,2-Oxybis(1-Chloropropane)	ND		0.455	1	08/28/2021 21:42	WG1730358
4-Bromophenyl-phenylether	ND		0.455	1	08/28/2021 21:42	WG1730358
2-Chloronaphthalene	ND		0.0455	1	08/28/2021 21:42	WG1730358
4-Chlorophenyl-phenylether	ND		0.455	1	08/28/2021 21:42	WG1730358
Chrysene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Dibenz(a,h)anthracene	ND		0.0455	1	08/28/2021 21:42	WG1730358
1,2-Dichlorobenzene	ND		0.455	1	08/28/2021 21:42	WG1730358
1,3-Dichlorobenzene	ND		0.455	1	08/28/2021 21:42	WG1730358
1,4-Dichlorobenzene	ND		0.455	1	08/28/2021 21:42	WG1730358
3,3-Dichlorobenzidine	ND		0.455	1	08/28/2021 21:42	WG1730358
2,4-Dinitrotoluene	ND		0.455	1	08/28/2021 21:42	WG1730358
2,6-Dinitrotoluene	ND		0.455	1	08/28/2021 21:42	WG1730358
Fluoranthene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Fluorene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Hexachlorobenzene	ND		0.455	1	08/28/2021 21:42	WG1730358
Hexachloro-1,3-butadiene	ND		0.455	1	08/28/2021 21:42	WG1730358
Hexachlorocyclopentadiene	ND	C3	0.455	1	08/28/2021 21:42	WG1730358
Hexachloroethane	ND		0.455	1	08/28/2021 21:42	WG1730358
Indeno(1,2,3-cd)pyrene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Isophorone	ND		0.455	1	08/28/2021 21:42	WG1730358
Naphthalene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Nitrobenzene	ND		0.455	1	08/28/2021 21:42	WG1730358
n-Nitrosodimethylamine	ND		0.455	1	08/28/2021 21:42	WG1730358
n-Nitrosodiphenylamine	ND		0.455	1	08/28/2021 21:42	WG1730358
n-Nitrosodi-n-propylamine	ND		0.455	1	08/28/2021 21:42	WG1730358
Phenanthrene	ND		0.0455	1	08/28/2021 21:42	WG1730358
Benzylbutyl phthalate	ND		0.455	1	08/28/2021 21:42	WG1730358
Bis(2-ethylhexyl)phthalate	ND		0.455	1	08/28/2021 21:42	WG1730358
Di-n-butyl phthalate	ND		0.455	1	08/28/2021 21:42	WG1730358
Diethyl phthalate	ND		0.455	1	08/28/2021 21:42	WG1730358
Dimethyl phthalate	ND		0.455	1	08/28/2021 21:42	WG1730358
Di-n-octyl phthalate	ND		0.455	1	08/28/2021 21:42	WG1730358
Pyrene	ND		0.0455	1	08/28/2021 21:42	WG1730358
1,2,4-Trichlorobenzene	ND		0.455	1	08/28/2021 21:42	WG1730358
4-Chloro-3-methylphenol	ND		0.455	1	08/28/2021 21:42	WG1730358
2-Chlorophenol	ND		0.455	1	08/28/2021 21:42	WG1730358
2,4-Dichlorophenol	ND		0.455	1	08/28/2021 21:42	WG1730358
2,4-Dimethylphenol	ND		0.455	1	08/28/2021 21:42	WG1730358
4,6-Dinitro-2-methylphenol	ND		0.455	1	08/28/2021 21:42	WG1730358
2,4-Dinitrophenol	ND		0.455	1	08/28/2021 21:42	WG1730358
2-Nitrophenol	ND		0.455	1	08/28/2021 21:42	WG1730358
4-Nitrophenol	ND		0.455	1	08/28/2021 21:42	WG1730358
Pentachlorophenol	ND		0.455	1	08/28/2021 21:42	WG1730358
Phenol	ND		0.455	1	08/28/2021 21:42	WG1730358
2,4,6-Trichlorophenol	ND		0.455	1	08/28/2021 21:42	WG1730358

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) 2-Fluorophenol	*39.7*		*12.0-120*		*08/28/2021 21:42*	WG1730358
(S) Phenol-d5	*35.7*		*10.0-120*		*08/28/2021 21:42*	WG1730358
(S) Nitrobenzene-d5	*37.2*		*10.0-122*		*08/28/2021 21:42*	WG1730358
(S) 2-Fluorobiphenyl	*33.8*		*15.0-120*		*08/28/2021 21:42*	WG1730358
(S) 2,4,6-Tribromophenol	*35.7*		*10.0-127*		*08/28/2021 21:42*	WG1730358
(S) p-Terphenyl-d14	*38.8*		*10.0-120*		*08/28/2021 21:42*	WG1730358

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.3		1	08/30/2021 09:16	WG1730126

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

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.164	2.18	08/25/2021 19:55	WG1729245
Acrylonitrile	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
Benzene	ND		0.00328	2.18	08/25/2021 19:55	WG1729245
Bromobenzene	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
Bromodichloromethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Bromoform	ND		0.0820	2.18	08/25/2021 19:55	WG1729245
Bromomethane	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
n-Butylbenzene	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
sec-Butylbenzene	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
tert-Butylbenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
Carbon tetrachloride	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
Chlorobenzene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Chlorodibromomethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Chloroethane	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
Chloroform	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Chloromethane	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
2-Chlorotoluene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
4-Chlorotoluene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,2-Dibromo-3-Chloropropane	ND		0.0820	2.18	08/25/2021 19:55	WG1729245
1,2-Dibromoethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Dibromomethane	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,2-Dichlorobenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,3-Dichlorobenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,4-Dichlorobenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
Dichlorodifluoromethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,1-Dichloroethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,2-Dichloroethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,1-Dichloroethene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
cis-1,2-Dichloroethene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
trans-1,2-Dichloroethene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,2-Dichloropropane	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,1-Dichloropropene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,3-Dichloropropane	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
cis-1,3-Dichloropropene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
trans-1,3-Dichloropropene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
2,2-Dichloropropane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Di-isopropyl ether	ND		0.00328	2.18	08/25/2021 19:55	WG1729245
Ethylbenzene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Hexachloro-1,3-butadiene	ND		0.0820	2.18	08/25/2021 19:55	WG1729245
Isopropylbenzene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
p-Isopropyltoluene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
2-Butanone (MEK)	ND		0.328	2.18	08/25/2021 19:55	WG1729245
Methylene Chloride	ND		0.0820	2.18	08/25/2021 19:55	WG1729245
4-Methyl-2-pentanone (MIBK)	ND		0.0820	2.18	08/25/2021 19:55	WG1729245
Methyl tert-butyl ether	ND		0.00328	2.18	08/25/2021 19:55	WG1729245
Naphthalene	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
n-Propylbenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
Styrene	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
1,1,1,2-Tetrachloroethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,1,2,2-Tetrachloroethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245

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

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

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Tetrachloroethene	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Toluene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,2,3-Trichlorobenzene	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
1,2,4-Trichlorobenzene	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
1,1,1-Trichloroethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,1,2-Trichloroethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
Trichloroethene	ND		0.00328	2.18	08/25/2021 19:55	WG1729245
Trichlorofluoromethane	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,2,3-Trichloropropane	ND		0.0411	2.18	08/25/2021 19:55	WG1729245
1,2,4-Trimethylbenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
1,2,3-Trimethylbenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
Vinyl chloride	ND		0.00820	2.18	08/25/2021 19:55	WG1729245
1,3,5-Trimethylbenzene	ND		0.0164	2.18	08/25/2021 19:55	WG1729245
Xylenes, Total	ND		0.0214	2.18	08/25/2021 19:55	WG1729245
(S) Toluene-d8	*101*		*75.0-131*		*08/25/2021 19:55*	WG1729245
(S) 4-Bromofluorobenzene	*94.0*		*67.0-138*		*08/25/2021 19:55*	WG1729245
(S) 1,2-Dichloroethane-d4	*90.8*		*70.0-130*		*08/25/2021 19:55*	WG1729245

Method Blank (MB)

(MB) R3698210-1 08/30/21 09:25

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

L1393379-54 Original Sample (OS) • Duplicate (DUP)

(OS) L1393379-54 08/30/21 09:25 • (DUP) R3698210-3 08/30/21 09:25

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	69.6	72.0	1	3.36		10

Laboratory Control Sample (LCS)

(LCS) R3698210-2 08/30/21 09:25

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

Method Blank (MB)

(MB) R3698207-1 08/30/21 09:16

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

L1393397-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1393397-03 08/30/21 09:16 • (DUP) R3698207-3 08/30/21 09:16

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	77.0	77.4	1	0.540		10

Laboratory Control Sample (LCS)

(LCS) R3698207-2 08/30/21 09:16

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

Method Blank (MB)

(MB) R3696469-1 08/25/21 18:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3696469-2 08/25/21 18:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.514	103	80.0-120	

L1393297-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393297-18 08/25/21 18:44 • (MS) R3696469-3 08/25/21 18:47 • (MSD) R3696469-4 08/25/21 18:49

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.500	ND	0.616	1.17	104	199	1	75.0-125		J3 J5	62.2	20

Method Blank (MB)

(MB) R3697060-1 08/26/21 08:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Lead	U		0.208	0.500
Selenium	U		0.764	2.00
Silver	U		0.127	1.00

Method Blank (MB)

(MB) R3697303-1 08/27/21 06:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Selenium	U		0.764	2.00

Laboratory Control Sample (LCS)

(LCS) R3697060-2 08/26/21 08:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	94.2	94.2	80.0-120	
Barium	100	100	100	80.0-120	
Cadmium	100	94.4	94.4	80.0-120	
Chromium	100	95.6	95.6	80.0-120	
Lead	100	97.0	97.0	80.0-120	
Selenium	100	96.4	96.4	80.0-120	
Silver	20.0	18.2	90.9	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3697303-2 08/27/21 06:07

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	100	95.1	95.1	80.0-120	

L1393384-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393384-07 08/26/21 08:51 • (MS) R3697060-5 08/26/21 08:59 • (MSD) R3697060-6 08/26/21 09:02

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	140	ND	121	115	86.8	82.5	1	75.0-125			5.03	20
Barium	140	182	308	294	90.2	80.1	1	75.0-125			4.67	20
Cadmium	140	ND	124	118	88.8	84.5	1	75.0-125			4.94	20
Chromium	140	18.0	146	136	91.7	84.7	1	75.0-125			6.97	20
Lead	140	119	282	265	116	104	1	75.0-125			6.21	20
Silver	27.9	ND	24.5	23.4	87.0	82.9	1	75.0-125			4.77	20

L1393384-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393384-07 08/27/21 06:10 • (MS) R3697303-5 08/27/21 06:18 • (MSD) R3697303-6 08/27/21 06:21

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	140	ND	123	124	88.0	88.8	1	75.0-125			0.939	20

Method Blank (MB)

(MB) R3697360-2 08/26/21 05:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*93.2*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3697360-1 08/26/21 04:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.06	92.0	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*111*	*77.0-120*	

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

Method Blank (MB)

(MB) R3696675-3 08/26/21 02:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Gasoline Range Organics-NWTPH	U		0.848	2.50
(S) a,a,a-Trifluorotoluene(FID)	*112*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3696675-2 08/26/21 01:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.76	105	71.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*77.0-120*	

L1392397-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1392397-01 08/26/21 09:37 • (MS) R3696675-4 08/26/21 09:58 • (MSD) R3696675-5 08/26/21 10:20

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	1520	5190	5320	66.7	69.1	1000	10.0-149			2.47	27
(S) a,a,a-Trifluorotoluene(FID)					*99.6*	*100*		*77.0-120*				

Sample Narrative:

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

Method Blank (MB)

(MB) R3696879-3 08/25/21 11:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

Method Blank (MB)

(MB) R3696879-3 08/25/21 11:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	0.123		0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*100*			*75.0-131*
(S) 4-Bromofluorobenzene	*94.3*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*

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

(LCS) R3696879-1 08/25/21 10:24 • (LCSD) R3696879-2 08/25/21 10:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.632	0.617	101	98.7	10.0-160			2.40	31
Acrylonitrile	0.625	0.603	0.583	96.5	93.3	45.0-153			3.37	22
Benzene	0.125	0.107	0.113	85.6	90.4	70.0-123			5.45	20
Bromobenzene	0.125	0.116	0.119	92.8	95.2	73.0-121			2.55	20
Bromodichloromethane	0.125	0.114	0.119	91.2	95.2	73.0-121			4.29	20

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

(LCS) R3696879-1 08/25/21 10:24 • (LCSD) R3696879-2 08/25/21 10:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.125	0.122	0.118	97.6	94.4	64.0-132			3.33	20
Bromomethane	0.125	0.106	0.113	84.8	90.4	56.0-147			6.39	20
n-Butylbenzene	0.125	0.115	0.124	92.0	99.2	68.0-135			7.53	20
sec-Butylbenzene	0.125	0.114	0.121	91.2	96.8	74.0-130			5.96	20
tert-Butylbenzene	0.125	0.117	0.122	93.6	97.6	75.0-127			4.18	20
Carbon tetrachloride	0.125	0.114	0.118	91.2	94.4	66.0-128			3.45	20
Chlorobenzene	0.125	0.112	0.115	89.6	92.0	76.0-128			2.64	20
Chlorodibromomethane	0.125	0.121	0.121	96.8	96.8	74.0-127			0.000	20
Chloroethane	0.125	0.102	0.110	81.6	88.0	61.0-134			7.55	20
Chloroform	0.125	0.111	0.118	88.8	94.4	72.0-123			6.11	20
Chloromethane	0.125	0.105	0.108	84.0	86.4	51.0-138			2.82	20
2-Chlorotoluene	0.125	0.112	0.120	89.6	96.0	75.0-124			6.90	20
4-Chlorotoluene	0.125	0.109	0.115	87.2	92.0	75.0-124			5.36	20
1,2-Dibromo-3-Chloropropane	0.125	0.119	0.114	95.2	91.2	59.0-130			4.29	20
1,2-Dibromoethane	0.125	0.120	0.122	96.0	97.6	74.0-128			1.65	20
Dibromomethane	0.125	0.117	0.119	93.6	95.2	75.0-122			1.69	20
1,2-Dichlorobenzene	0.125	0.112	0.115	89.6	92.0	76.0-124			2.64	20
1,3-Dichlorobenzene	0.125	0.115	0.119	92.0	95.2	76.0-125			3.42	20
1,4-Dichlorobenzene	0.125	0.118	0.117	94.4	93.6	77.0-121			0.851	20
Dichlorodifluoromethane	0.125	0.111	0.115	88.8	92.0	43.0-156			3.54	20
1,1-Dichloroethane	0.125	0.111	0.117	88.8	93.6	70.0-127			5.26	20
1,2-Dichloroethane	0.125	0.113	0.118	90.4	94.4	65.0-131			4.33	20
1,1-Dichloroethene	0.125	0.118	0.123	94.4	98.4	65.0-131			4.15	20
cis-1,2-Dichloroethene	0.125	0.113	0.116	90.4	92.8	73.0-125			2.62	20
trans-1,2-Dichloroethene	0.125	0.113	0.121	90.4	96.8	71.0-125			6.84	20
1,2-Dichloropropane	0.125	0.115	0.122	92.0	97.6	74.0-125			5.91	20
1,1-Dichloropropene	0.125	0.113	0.120	90.4	96.0	73.0-125			6.01	20
1,3-Dichloropropane	0.125	0.118	0.120	94.4	96.0	80.0-125			1.68	20
cis-1,3-Dichloropropene	0.125	0.113	0.118	90.4	94.4	76.0-127			4.33	20
trans-1,3-Dichloropropene	0.125	0.117	0.120	93.6	96.0	73.0-127			2.53	20
2,2-Dichloropropane	0.125	0.114	0.117	91.2	93.6	59.0-135			2.60	20
Di-isopropyl ether	0.125	0.113	0.114	90.4	91.2	60.0-136			0.881	20
Ethylbenzene	0.125	0.111	0.117	88.8	93.6	74.0-126			5.26	20
Hexachloro-1,3-butadiene	0.125	0.121	0.126	96.8	101	57.0-150			4.05	20
Isopropylbenzene	0.125	0.114	0.114	91.2	91.2	72.0-127			0.000	20
p-Isopropyltoluene	0.125	0.114	0.120	91.2	96.0	72.0-133			5.13	20
2-Butanone (MEK)	0.625	0.623	0.620	99.7	99.2	30.0-160			0.483	24
Methylene Chloride	0.125	0.118	0.122	94.4	97.6	68.0-123			3.33	20
4-Methyl-2-pentanone (MIBK)	0.625	0.614	0.612	98.2	97.9	56.0-143			0.326	20
Methyl tert-butyl ether	0.125	0.109	0.112	87.2	89.6	66.0-132			2.71	20

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

(LCS) R3696879-1 08/25/21 10:24 • (LCSD) R3696879-2 08/25/21 10:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.125	0.119	0.122	95.2	97.6	59.0-130			2.49	20
n-Propylbenzene	0.125	0.111	0.114	88.8	91.2	74.0-126			2.67	20
Styrene	0.125	0.116	0.116	92.8	92.8	72.0-127			0.000	20
1,1,1,2-Tetrachloroethane	0.125	0.112	0.110	89.6	88.0	74.0-129			1.80	20
1,1,2,2-Tetrachloroethane	0.125	0.123	0.122	98.4	97.6	68.0-128			0.816	20
Tetrachloroethene	0.125	0.111	0.117	88.8	93.6	70.0-136			5.26	20
Toluene	0.125	0.108	0.112	86.4	89.6	75.0-121			3.64	20
1,1,2-Trichlorotrifluoroethane	0.125	0.113	0.120	90.4	96.0	61.0-139			6.01	20
1,2,3-Trichlorobenzene	0.125	0.120	0.125	96.0	100	59.0-139			4.08	20
1,2,4-Trichlorobenzene	0.125	0.119	0.123	95.2	98.4	62.0-137			3.31	20
1,1,1-Trichloroethane	0.125	0.116	0.119	92.8	95.2	69.0-126			2.55	20
1,1,2-Trichloroethane	0.125	0.118	0.121	94.4	96.8	78.0-123			2.51	20
Trichloroethene	0.125	0.110	0.117	88.0	93.6	76.0-126			6.17	20
Trichlorofluoromethane	0.125	0.112	0.116	89.6	92.8	61.0-142			3.51	20
1,2,3-Trichloropropane	0.125	0.122	0.121	97.6	96.8	67.0-129			0.823	20
1,2,3-Trimethylbenzene	0.125	0.112	0.114	89.6	91.2	74.0-124			1.77	20
1,2,4-Trimethylbenzene	0.125	0.113	0.116	90.4	92.8	70.0-126			2.62	20
1,3,5-Trimethylbenzene	0.125	0.114	0.118	91.2	94.4	73.0-127			3.45	20
Vinyl chloride	0.125	0.107	0.109	85.6	87.2	63.0-134			1.85	20
Xylenes, Total	0.375	0.337	0.350	89.9	93.3	72.0-127			3.78	20
(S) Toluene-d8				*96.0*	*96.4*	*75.0-131*				
(S) 4-Bromofluorobenzene				*95.3*	*96.3*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*98.6*	*99.4*	*70.0-130*				

Method Blank (MB)

(MB) R3698946-1 08/31/21 16:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*69.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3698946-2 08/31/21 16:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	33.6	67.2	50.0-150	
(S) o-Terphenyl			*61.1*	*18.0-148*	

L1393384-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393384-02 08/31/21 20:52 • (MS) R3698946-3 08/31/21 21:06 • (MSD) R3698946-4 08/31/21 21:19

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	65.8	111	130	161	29.0	75.8	1	50.0-150	J6	J3	21.3	20
(S) o-Terphenyl					*60.7*	*58.2*		*18.0-148*				

Method Blank (MB)

(MB) R3697771-1 08/28/21 15:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*72.2*			*10.0-135*
(S) Tetrachloro-m-xylene	*73.9*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3697771-2 08/28/21 15:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1260	0.167	0.146	87.4	37.0-145	
PCB 1016	0.167	0.137	82.0	36.0-141	
(S) Decachlorobiphenyl			*86.8*	*10.0-135*	
(S) Tetrachloro-m-xylene			*90.5*	*10.0-139*	

L1393400-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393400-07 08/28/21 22:40 • (MS) R3697771-3 08/28/21 22:49 • (MSD) R3697771-4 08/28/21 22:58

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.167	ND	0.189	0.189	91.6	91.6	1	10.0-160	P	P	0.000	38
PCB 1016	0.167	ND	33.5	27.2	16300	13200	1	10.0-160	J5 P	J5 P	20.7	37
(S) Decachlorobiphenyl					*70.1*	*76.3*		*10.0-135*				
(S) Tetrachloro-m-xylene					*89.3*	*88.1*		*10.0-139*				

Method Blank (MB)

(MB) R3697051-2 08/26/21 10:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00539	0.0333
Acenaphthylene	U		0.00469	0.0333
Anthracene	U		0.00593	0.0333
Benzidine	U		0.0626	1.67
Benzo(a)anthracene	U		0.00587	0.0333
Benzo(b)fluoranthene	U		0.00621	0.0333
Benzo(k)fluoranthene	U		0.00592	0.0333
Benzo(g,h,i)perylene	U		0.00609	0.0333
Benzo(a)pyrene	U		0.00619	0.0333
Bis(2-chlorethoxy)methane	U		0.0100	0.333
Bis(2-chloroethyl)ether	U		0.0110	0.333
2,2-oxybis(1-chloropropane)	U		0.0144	0.333
4-Bromophenyl-phenylether	U		0.0117	0.333
2-Chloronaphthalene	U		0.00585	0.0333
4-Chlorophenyl-phenylether	U		0.0116	0.333
Chrysene	U		0.00662	0.0333
Dibenz(a,h)anthracene	U		0.00923	0.0333
1,2-Dichlorobenzene	U		0.00987	0.333
1,3-Dichlorobenzene	U		0.0101	0.333
1,4-Dichlorobenzene	U		0.00991	0.333
3,3-Dichlorobenzidine	U		0.0123	0.333
2,4-Dinitrotoluene	U		0.00955	0.333
2,6-Dinitrotoluene	U		0.0109	0.333
Fluoranthene	U		0.00601	0.0333
Fluorene	U		0.00542	0.0333
Hexachlorobenzene	U		0.0118	0.333
Hexachloro-1,3-butadiene	U		0.0112	0.333
Hexachlorocyclopentadiene	U		0.0175	0.333
Hexachloroethane	U		0.0131	0.333
Indeno(1,2,3-cd)pyrene	U		0.00941	0.0333
Isophorone	U		0.0102	0.333
Naphthalene	U		0.00836	0.0333
Nitrobenzene	U		0.0116	0.333
n-Nitrosodimethylamine	U		0.0494	0.333
n-Nitrosodiphenylamine	U		0.0252	0.333
n-Nitrosodi-n-propylamine	U		0.0111	0.333
Phenanthrene	U		0.00661	0.0333
Benzylbutyl phthalate	U		0.0104	0.333
Bis(2-ethylhexyl)phthalate	U		0.0422	0.333
Di-n-butyl phthalate	U		0.0114	0.333

Method Blank (MB)

(MB) R3697051-2 08/26/21 10:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diethyl phthalate	U		0.0110	0.333
Dimethyl phthalate	U		0.0706	0.333
Di-n-octyl phthalate	U		0.0225	0.333
Pyrene	U		0.00648	0.0333
1,2,4-Trichlorobenzene	U		0.0104	0.333
4-Chloro-3-methylphenol	U		0.0108	0.333
2-Chlorophenol	U		0.0110	0.333
2,4-Dichlorophenol	U		0.00970	0.333
2,4-Dimethylphenol	U		0.00870	0.333
4,6-Dinitro-2-methylphenol	U		0.0755	0.333
2,4-Dinitrophenol	U		0.0779	0.333
2-Nitrophenol	U		0.0119	0.333
4-Nitrophenol	U		0.0104	0.333
Pentachlorophenol	U		0.00896	0.333
Phenol	U		0.0134	0.333
2,4,6-Trichlorophenol	U		0.0107	0.333
(S) Nitrobenzene-d5	*58.0*			*10.0-122*
(S) 2-Fluorobiphenyl	*55.0*			*15.0-120*
(S) p-Terphenyl-d14	*56.5*			*10.0-120*
(S) Phenol-d5	*59.0*			*10.0-120*
(S) 2-Fluorophenol	*59.2*			*12.0-120*
(S) 2,4,6-Tribromophenol	*53.0*			*10.0-127*

Laboratory Control Sample (LCS)

(LCS) R3697051-1 08/26/21 09:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.316	47.4	38.0-120	
Acenaphthylene	0.666	0.330	49.5	40.0-120	
Anthracene	0.666	0.329	49.4	42.0-120	
Benzidine	1.33	0.446	33.5	10.0-120	
Benzo(a)anthracene	0.666	0.381	57.2	44.0-120	
Benzo(b)fluoranthene	0.666	0.346	52.0	43.0-120	
Benzo(k)fluoranthene	0.666	0.351	52.7	44.0-120	
Benzo(g,h,i)perylene	0.666	0.411	61.7	43.0-120	
Benzo(a)pyrene	0.666	0.348	52.3	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.295	44.3	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.423	63.5	16.0-120	

Laboratory Control Sample (LCS)

(LCS) R3697051-1 08/26/21 09:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2,2-Oxybis(1-Chloropropane)	0.666	0.323	48.5	23.0-120	
4-Bromophenyl-phenylether	0.666	0.351	52.7	40.0-120	
2-Chloronaphthalene	0.666	0.324	48.6	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.331	49.7	40.0-120	
Chrysene	0.666	0.349	52.4	43.0-120	
Dibenz(a,h)anthracene	0.666	0.396	59.5	44.0-120	
1,2-Dichlorobenzene	0.666	0.319	47.9	32.0-120	
1,3-Dichlorobenzene	0.666	0.311	46.7	30.0-120	
1,4-Dichlorobenzene	0.666	0.304	45.6	31.0-120	
3,3-Dichlorobenzidine	1.33	0.725	54.5	28.0-120	
2,4-Dinitrotoluene	0.666	0.404	60.7	45.0-120	
2,6-Dinitrotoluene	0.666	0.365	54.8	42.0-120	
Fluoranthene	0.666	0.334	50.2	44.0-120	
Fluorene	0.666	0.329	49.4	41.0-120	
Hexachlorobenzene	0.666	0.328	49.2	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.300	45.0	15.0-120	
Hexachlorocyclopentadiene	0.666	0.291	43.7	15.0-120	
Hexachloroethane	0.666	0.331	49.7	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.408	61.3	45.0-120	
Isophorone	0.666	0.326	48.9	23.0-120	
Naphthalene	0.666	0.276	41.4	18.0-120	
Nitrobenzene	0.666	0.296	44.4	17.0-120	
n-Nitrosodimethylamine	0.666	0.389	58.4	10.0-125	
n-Nitrosodiphenylamine	0.666	0.317	47.6	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.356	53.5	26.0-120	
Phenanthrene	0.666	0.329	49.4	42.0-120	
Benzylbutyl phthalate	0.666	0.394	59.2	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.407	61.1	41.0-120	
Di-n-butyl phthalate	0.666	0.356	53.5	43.0-120	
Diethyl phthalate	0.666	0.372	55.9	43.0-120	
Dimethyl phthalate	0.666	0.345	51.8	43.0-120	
Di-n-octyl phthalate	0.666	0.404	60.7	40.0-120	
Pyrene	0.666	0.357	53.6	41.0-120	
1,2,4-Trichlorobenzene	0.666	0.290	43.5	17.0-120	
4-Chloro-3-methylphenol	0.666	0.311	46.7	28.0-120	
2-Chlorophenol	0.666	0.345	51.8	28.0-120	
2,4-Dichlorophenol	0.666	0.303	45.5	25.0-120	
2,4-Dimethylphenol	0.666	0.312	46.8	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.370	55.6	16.0-120	
2,4-Dinitrophenol	0.666	0.291	43.7	10.0-120	

Laboratory Control Sample (LCS)

(LCS) R3697051-1 08/26/21 09:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Nitrophenol	0.666	0.303	45.5	20.0-120	
4-Nitrophenol	0.666	0.388	58.3	27.0-120	
Pentachlorophenol	0.666	0.328	49.2	29.0-120	
Phenol	0.666	0.336	50.5	28.0-120	
2,4,6-Trichlorophenol	0.666	0.331	49.7	37.0-120	
(S) Nitrobenzene-d5			*46.5*	*10.0-122*	
(S) 2-Fluorobiphenyl			*48.9*	*15.0-120*	
(S) p-Terphenyl-d14			*49.8*	*10.0-120*	
(S) Phenol-d5			*52.3*	*10.0-120*	
(S) 2-Fluorophenol			*53.3*	*12.0-120*	
(S) 2,4,6-Tribromophenol			*54.5*	*10.0-127*	

L1393384-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393384-01 08/26/21 11:28 • (MS) R3696997-1 08/26/21 11:49 • (MSD) R3696997-2 08/26/21 12:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.948	ND	0.311	0.345	32.8	36.2	1	18.0-120			10.3	32
Acenaphthylene	0.948	ND	0.321	0.367	33.9	38.5	1	25.0-120			13.2	32
Anthracene	0.948	ND	0.351	0.379	37.0	39.7	1	22.0-120			7.65	29
Benzidine	1.89	ND	ND	ND	17.4	15.5	1	10.0-120			10.8	40
Benzo(a)anthracene	0.948	ND	0.386	0.433	40.7	45.4	1	25.0-120			11.5	29
Benzo(b)fluoranthene	0.948	ND	0.363	0.404	38.2	42.3	1	19.0-122			10.7	31
Benzo(k)fluoranthene	0.948	ND	0.371	0.402	39.2	42.2	1	23.0-120			7.97	30
Benzo(g,h,i)perylene	0.948	ND	0.361	0.382	38.1	40.0	1	10.0-120			5.53	33
Benzo(a)pyrene	0.948	ND	0.376	0.424	39.6	44.5	1	24.0-120			12.1	30
Bis(2-chlorethoxy)methane	0.948	ND	ND	ND	25.7	28.2	1	10.0-120			9.74	34
Bis(2-chloroethyl)ether	0.948	ND	ND	ND	28.9	33.7	1	10.0-120			15.8	40
2,2-Oxybis(1-Chloropropane)	0.948	ND	ND	ND	29.1	30.8	1	10.0-120			6.19	40
4-Bromophenyl-phenylether	0.948	ND	ND	ND	35.0	38.9	1	27.0-120			11.3	30
2-Chloronaphthalene	0.948	ND	0.316	0.339	33.3	35.5	1	20.0-120			7.17	32
4-Chlorophenyl-phenylether	0.948	ND	ND	ND	37.8	41.2	1	24.0-120			9.38	29
Chrysene	0.948	ND	0.365	0.399	38.5	41.8	1	21.0-120			8.83	29
Dibenz(a,h)anthracene	0.948	ND	0.349	0.377	36.8	39.5	1	10.0-120			7.68	32
1,2-Dichlorobenzene	0.948	ND	ND	ND	30.3	31.8	1	10.0-120			5.46	38
1,3-Dichlorobenzene	0.948	ND	ND	ND	29.7	30.6	1	10.0-120			3.58	40
1,4-Dichlorobenzene	0.948	ND	ND	ND	28.9	30.9	1	10.0-120			7.22	39
3,3-Dichlorobenzidine	1.89	ND	0.727	0.822	38.4	43.1	1	10.0-120			12.3	34
2,4-Dinitrotoluene	0.948	ND	ND	0.490	46.1	51.4	1	30.0-120			11.4	31

L1393384-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393384-01 08/26/21 11:28 • (MS) R3696997-1 08/26/21 11:49 • (MSD) R3696997-2 08/26/21 12:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
2,6-Dinitrotoluene	0.948	ND	ND	ND	37.3	43.7	1	25.0-120			16.4	31
Fluoranthene	0.948	ND	0.396	0.426	41.8	44.6	1	18.0-126			7.14	32
Fluorene	0.948	ND	0.339	0.376	35.8	39.4	1	25.0-120			10.3	30
Hexachlorobenzene	0.948	ND	ND	ND	37.9	40.2	1	27.0-120			6.32	28
Hexachloro-1,3-butadiene	0.948	ND	ND	ND	37.8	37.5	1	10.0-120			0.000	38
Hexachlorocyclopentadiene	0.948	ND	ND	ND	23.7	26.6	1	10.0-120			12.3	40
Hexachloroethane	0.948	ND	ND	ND	32.8	33.5	1	10.0-120			2.79	40
Indeno(1,2,3-cd)pyrene	0.948	ND	0.377	0.407	39.8	42.6	1	10.0-120			7.49	32
Isophorone	0.948	ND	ND	ND	29.9	33.4	1	13.0-120			11.7	34
Naphthalene	0.948	ND	0.273	0.295	28.8	30.9	1	10.0-120			7.75	35
Nitrobenzene	0.948	ND	ND	ND	30.0	33.4	1	10.0-120			11.2	36
n-Nitrosodimethylamine	0.948	ND	ND	ND	35.8	37.2	1	10.0-127			4.65	40
n-Nitrosodiphenylamine	0.948	ND	ND	ND	34.1	37.8	1	17.0-120			11.2	29
n-Nitrosodi-n-propylamine	0.948	ND	ND	ND	28.5	33.2	1	10.0-120			16.0	37
Phenanthrene	0.948	ND	0.349	0.389	36.8	40.8	1	17.0-120			10.7	31
Benzylbutyl phthalate	0.948	ND	ND	ND	41.8	47.2	1	23.0-120			12.8	30
Bis(2-ethylhexyl)phthalate	0.948	ND	ND	ND	41.5	42.6	1	17.0-126			3.30	30
Di-n-butyl phthalate	0.948	ND	ND	ND	39.5	43.4	1	30.0-120			10.1	29
Diethyl phthalate	0.948	ND	ND	0.496	45.4	52.0	1	26.0-120			14.3	28
Dimethyl phthalate	0.948	ND	ND	ND	37.9	43.7	1	25.0-120			14.7	29
Di-n-octyl phthalate	0.948	ND	ND	ND	43.0	46.0	1	21.0-123			7.28	29
Pyrene	0.948	ND	0.365	0.410	38.5	42.9	1	16.0-121			11.4	32
1,2,4-Trichlorobenzene	0.948	ND	ND	ND	30.8	33.7	1	12.0-120			9.57	37
4-Chloro-3-methylphenol	0.948	ND	ND	ND	27.1	32.8	1	15.0-120			19.6	30
2-Chlorophenol	0.948	ND	ND	ND	33.9	38.8	1	15.0-120			14.0	37
2,4-Dichlorophenol	0.948	ND	ND	ND	34.7	38.9	1	20.0-120			12.2	31
2,4-Dimethylphenol	0.948	ND	ND	ND	35.1	40.9	1	10.0-120			15.8	33
4,6-Dinitro-2-methylphenol	0.948	ND	ND	0.502	45.2	52.6	1	10.0-120			15.8	39
2,4-Dinitrophenol	0.948	ND	ND	0.502	46.3	52.6	1	10.0-121			13.4	40
2-Nitrophenol	0.948	ND	ND	ND	32.0	34.9	1	12.0-120			9.22	39
4-Nitrophenol	0.948	ND	ND	ND	39.0	44.3	1	10.0-137			13.3	32
Pentachlorophenol	0.948	ND	ND	ND	39.3	45.5	1	10.0-160			15.3	31
Phenol	0.948	ND	ND	ND	23.4	24.8	1	12.0-120			6.41	38
2,4,6-Trichlorophenol	0.948	ND	ND	ND	35.8	41.8	1	19.0-120			16.3	32
(S) Nitrobenzene-d5					*28.4*	*32.0*		*10.0-122*				
(S) 2-Fluorobiphenyl					*31.9*	*37.8*		*15.0-120*				
(S) p-Terphenyl-d14					*30.8*	*36.0*		*10.0-120*				
(S) Phenol-d5					*21.4*	*0.969*		*10.0-120*		J2		
(S) 2-Fluorophenol					*31.3*	*37.8*		*12.0-120*				

L1393384-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393384-01 08/26/21 11:28 • (MS) R3696997-1 08/26/21 11:49 • (MSD) R3696997-2 08/26/21 12:10

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 2,4,6-Tribromophenol					*36.7*	*44.0*		*10.0-127*				

Method Blank (MB)

(MB) R3697831-2 08/28/21 21:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acenaphthene	U		0.00539	0.0333
Acenaphthylene	U		0.00469	0.0333
Anthracene	U		0.00593	0.0333
Benzidine	U		0.0626	1.67
Benzo(a)anthracene	U		0.00587	0.0333
Benzo(b)fluoranthene	U		0.00621	0.0333
Benzo(k)fluoranthene	U		0.00592	0.0333
Benzo(g,h,i)perylene	U		0.00609	0.0333
Benzo(a)pyrene	U		0.00619	0.0333
Bis(2-chlorethoxy)methane	U		0.0100	0.333
Bis(2-chloroethyl)ether	U		0.0110	0.333
2,2-oxybis(1-chloropropane)	U		0.0144	0.333
4-Bromophenyl-phenylether	U		0.0117	0.333
2-Chloronaphthalene	U		0.00585	0.0333
4-Chlorophenyl-phenylether	U		0.0116	0.333
Chrysene	U		0.00662	0.0333
Dibenz(a,h)anthracene	U		0.00923	0.0333
1,2-Dichlorobenzene	U		0.00987	0.333
1,3-Dichlorobenzene	U		0.0101	0.333
1,4-Dichlorobenzene	U		0.00991	0.333
3,3-Dichlorobenzidine	U		0.0123	0.333
2,4-Dinitrotoluene	U		0.00955	0.333
2,6-Dinitrotoluene	U		0.0109	0.333
Fluoranthene	U		0.00601	0.0333
Fluorene	U		0.00542	0.0333
Hexachlorobenzene	U		0.0118	0.333
Hexachloro-1,3-butadiene	U		0.0112	0.333
Hexachlorocyclopentadiene	U		0.0175	0.333
Hexachloroethane	U		0.0131	0.333
Indeno(1,2,3-cd)pyrene	U		0.00941	0.0333
Isophorone	U		0.0102	0.333
Naphthalene	U		0.00836	0.0333
Nitrobenzene	U		0.0116	0.333
n-Nitrosodimethylamine	U		0.0494	0.333
n-Nitrosodiphenylamine	U		0.0252	0.333
n-Nitrosodi-n-propylamine	U		0.0111	0.333
Phenanthrene	U		0.00661	0.0333
Benzylbutyl phthalate	U		0.0104	0.333
Bis(2-ethylhexyl)phthalate	U		0.0422	0.333
Di-n-butyl phthalate	U		0.0114	0.333

Method Blank (MB)

(MB) R3697831-2 08/28/21 21:01

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diethyl phthalate	U		0.0110	0.333
Dimethyl phthalate	U		0.0706	0.333
Di-n-octyl phthalate	U		0.0225	0.333
Pyrene	U		0.00648	0.0333
1,2,4-Trichlorobenzene	U		0.0104	0.333
4-Chloro-3-methylphenol	U		0.0108	0.333
2-Chlorophenol	U		0.0110	0.333
2,4-Dichlorophenol	U		0.00970	0.333
2,4-Dimethylphenol	U		0.00870	0.333
4,6-Dinitro-2-methylphenol	U		0.0755	0.333
2,4-Dinitrophenol	U		0.0779	0.333
2-Nitrophenol	U		0.0119	0.333
4-Nitrophenol	U		0.0104	0.333
Pentachlorophenol	U		0.00896	0.333
Phenol	U		0.0134	0.333
2,4,6-Trichlorophenol	U		0.0107	0.333
(S) Nitrobenzene-d5	*61.6*			*10.0-122*
(S) 2-Fluorobiphenyl	*58.0*			*15.0-120*
(S) p-Terphenyl-d14	*75.4*			*10.0-120*
(S) Phenol-d5	*61.0*			*10.0-120*
(S) 2-Fluorophenol	*60.5*			*12.0-120*
(S) 2,4,6-Tribromophenol	*58.6*			*10.0-127*

Laboratory Control Sample (LCS)

(LCS) R3697831-1 08/28/21 20:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.334	50.2	38.0-120	
Acenaphthylene	0.666	0.348	52.3	40.0-120	
Anthracene	0.666	0.336	50.5	42.0-120	
Benzidine	1.33	0.348	26.2	10.0-120	
Benzo(a)anthracene	0.666	0.394	59.2	44.0-120	
Benzo(b)fluoranthene	0.666	0.340	51.1	43.0-120	
Benzo(k)fluoranthene	0.666	0.355	53.3	44.0-120	
Benzo(g,h,i)perylene	0.666	0.405	60.8	43.0-120	
Benzo(a)pyrene	0.666	0.344	51.7	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.315	47.3	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.453	68.0	16.0-120	

Laboratory Control Sample (LCS)

(LCS) R3697831-1 08/28/21 20:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2,2-Oxybis(1-Chloropropane)	0.666	0.330	49.5	23.0-120	
4-Bromophenyl-phenylether	0.666	0.353	53.0	40.0-120	
2-Chloronaphthalene	0.666	0.329	49.4	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.339	50.9	40.0-120	
Chrysene	0.666	0.364	54.7	43.0-120	
Dibenz(a,h)anthracene	0.666	0.393	59.0	44.0-120	
1,2-Dichlorobenzene	0.666	0.323	48.5	32.0-120	
1,3-Dichlorobenzene	0.666	0.305	45.8	30.0-120	
1,4-Dichlorobenzene	0.666	0.306	45.9	31.0-120	
3,3-Dichlorobenzidine	1.33	0.760	57.1	28.0-120	
2,4-Dinitrotoluene	0.666	0.408	61.3	45.0-120	
2,6-Dinitrotoluene	0.666	0.371	55.7	42.0-120	
Fluoranthene	0.666	0.334	50.2	44.0-120	
Fluorene	0.666	0.341	51.2	41.0-120	
Hexachlorobenzene	0.666	0.346	52.0	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.295	44.3	15.0-120	
Hexachlorocyclopentadiene	0.666	0.299	44.9	15.0-120	
Hexachloroethane	0.666	0.348	52.3	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.393	59.0	45.0-120	
Isophorone	0.666	0.336	50.5	23.0-120	
Naphthalene	0.666	0.276	41.4	18.0-120	
Nitrobenzene	0.666	0.311	46.7	17.0-120	
n-Nitrosodimethylamine	0.666	0.409	61.4	10.0-125	
n-Nitrosodiphenylamine	0.666	0.331	49.7	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.374	56.2	26.0-120	
Phenanthrene	0.666	0.343	51.5	42.0-120	
Benzylbutyl phthalate	0.666	0.396	59.5	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.407	61.1	41.0-120	
Di-n-butyl phthalate	0.666	0.353	53.0	43.0-120	
Diethyl phthalate	0.666	0.387	58.1	43.0-120	
Dimethyl phthalate	0.666	0.365	54.8	43.0-120	
Di-n-octyl phthalate	0.666	0.378	56.8	40.0-120	
Pyrene	0.666	0.369	55.4	41.0-120	
1,2,4-Trichlorobenzene	0.666	0.286	42.9	17.0-120	
4-Chloro-3-methylphenol	0.666	0.320	48.0	28.0-120	
2-Chlorophenol	0.666	0.354	53.2	28.0-120	
2,4-Dichlorophenol	0.666	0.293	44.0	25.0-120	
2,4-Dimethylphenol	0.666	0.315	47.3	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.323	48.5	16.0-120	
2,4-Dinitrophenol	0.666	0.199	29.9	10.0-120	

Laboratory Control Sample (LCS)

(LCS) R3697831-1 08/28/21 20:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Nitrophenol	0.666	0.295	44.3	20.0-120	
4-Nitrophenol	0.666	0.372	55.9	27.0-120	
Pentachlorophenol	0.666	0.308	46.2	29.0-120	
Phenol	0.666	0.351	52.7	28.0-120	
2,4,6-Trichlorophenol	0.666	0.339	50.9	37.0-120	
(S) Nitrobenzene-d5			*45.0*	*10.0-122*	
(S) 2-Fluorobiphenyl			*48.6*	*15.0-120*	
(S) p-Terphenyl-d14			*58.3*	*10.0-120*	
(S) Phenol-d5			*51.5*	*10.0-120*	
(S) 2-Fluorophenol			*51.4*	*12.0-120*	
(S) 2,4,6-Tribromophenol			*53.8*	*10.0-127*	

L1393400-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393400-07 08/29/21 01:56 • (MS) R3697831-3 08/29/21 02:17 • (MSD) R3697831-4 08/29/21 02:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.648	ND	0.388	0.323	48.6	40.6	1	18.0-120			18.4	32
Acenaphthylene	0.648	ND	0.402	0.339	48.4	40.7	1	25.0-120			17.0	32
Anthracene	0.648	ND	0.426	0.348	52.0	42.3	1	22.0-120			20.4	29
Benzidine	1.30	ND	ND	ND	0.000	0.000	1	10.0-120	J6	J6	0.000	40
Benzo(a)anthracene	0.648	0.0713	0.463	0.434	49.1	45.5	1	25.0-120			6.59	29
Benzo(b)fluoranthene	0.648	0.120	0.362	0.446	30.4	41.0	1	19.0-122			20.7	31
Benzo(k)fluoranthene	0.648	ND	0.314	0.391	34.6	44.3	1	23.0-120			21.7	30
Benzo(g,h,i)perylene	0.648	0.0445	0.195	0.272	18.8	28.6	1	10.0-120		J3	33.2	33
Benzo(a)pyrene	0.648	0.0726	0.314	0.394	30.3	40.4	1	24.0-120			22.6	30
Bis(2-chlorethoxy)methane	0.648	ND	ND	ND	37.8	37.8	1	10.0-120			0.409	34
Bis(2-chloroethyl)ether	0.648	ND	0.429	ND	53.7	47.7	1	10.0-120			12.2	40
2,2-Oxybis(1-Chloropropane)	0.648	ND	ND	ND	38.4	38.5	1	10.0-120			0.000	40
4-Bromophenyl-phenylether	0.648	ND	0.456	ND	57.1	46.9	1	27.0-120			19.9	30
2-Chloronaphthalene	0.648	ND	0.372	0.322	46.6	40.4	1	20.0-120			14.6	32
4-Chlorophenyl-phenylether	0.648	ND	0.429	ND	53.7	43.3	1	24.0-120			21.7	29
Chrysene	0.648	0.0664	0.435	0.404	46.2	42.4	1	21.0-120			7.34	29
Dibenz(a,h)anthracene	0.648	ND	0.211	0.295	24.8	35.4	1	10.0-120		J3	33.2	32
1,2-Dichlorobenzene	0.648	ND	ND	ND	36.3	37.3	1	10.0-120			2.52	38
1,3-Dichlorobenzene	0.648	ND	ND	ND	34.1	36.1	1	10.0-120			5.29	40
1,4-Dichlorobenzene	0.648	ND	ND	ND	34.1	36.1	1	10.0-120			5.29	39
3,3-Dichlorobenzidine	1.30	ND	ND	ND	12.5	17.4	1	10.0-120			31.5	34
2,4-Dinitrotoluene	0.648	ND	0.481	ND	60.2	51.4	1	30.0-120			16.1	31

L1393400-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393400-07 08/29/21 01:56 • (MS) R3697831-3 08/29/21 02:17 • (MSD) R3697831-4 08/29/21 02:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
2,6-Dinitrotoluene	0.648	ND	ND	ND	49.5	45.8	1	25.0-120			8.10	31
Fluoranthene	0.648	0.153	0.604	0.453	56.5	37.8	1	18.0-126			28.4	32
Fluorene	0.648	ND	0.424	0.345	51.9	42.2	1	25.0-120			20.5	30
Hexachlorobenzene	0.648	ND	ND	ND	51.1	44.9	1	27.0-120			13.2	28
Hexachloro-1,3-butadiene	0.648	ND	ND	ND	38.7	39.3	1	10.0-120			1.19	38
Hexachlorocyclopentadiene	0.648	ND	ND	ND	2.76	4.21	1	10.0-120	J6	J3 J6	41.2	40
Hexachloroethane	0.648	ND	ND	ND	29.5	30.8	1	10.0-120			4.10	40
Indeno(1,2,3-cd)pyrene	0.648	0.0521	0.230	0.319	22.3	33.5	1	10.0-120		J3	32.3	32
Isophorone	0.648	ND	ND	ND	41.8	40.6	1	13.0-120			3.38	34
Naphthalene	0.648	ND	0.296	0.281	37.0	35.3	1	10.0-120			5.13	35
Nitrobenzene	0.648	ND	ND	ND	38.3	36.2	1	10.0-120			5.81	36
n-Nitrosodimethylamine	0.648	ND	ND	ND	0.000	39.6	1	10.0-127	J6	J3	200	40
n-Nitrosodiphenylamine	0.648	ND	ND	ND	49.7	41.5	1	17.0-120			18.3	29
n-Nitrosodi-n-propylamine	0.648	ND	ND	ND	42.7	42.7	1	10.0-120			0.362	37
Phenanthrene	0.648	0.0799	0.516	0.389	54.7	38.9	1	17.0-120			28.0	31
Benzylbutyl phthalate	0.648	ND	ND	ND	51.2	50.8	1	23.0-120			1.21	30
Bis(2-ethylhexyl)phthalate	0.648	ND	0.415	0.419	52.0	52.6	1	17.0-126			0.886	30
Di-n-butyl phthalate	0.648	ND	0.436	ND	54.6	44.6	1	30.0-120			20.6	29
Diethyl phthalate	0.648	ND	0.460	ND	57.6	46.1	1	26.0-120			22.4	28
Dimethyl phthalate	0.648	ND	ND	ND	41.4	43.0	1	25.0-120			3.66	29
Di-n-octyl phthalate	0.648	ND	0.433	0.429	54.2	53.9	1	21.0-123			0.858	29
Pyrene	0.648	0.110	0.461	0.431	43.9	40.3	1	16.0-121			6.63	32
1,2,4-Trichlorobenzene	0.648	ND	ND	ND	38.1	37.3	1	12.0-120			2.46	37
4-Chloro-3-methylphenol	0.648	ND	ND	ND	28.5	40.7	1	15.0-120		J3	34.8	30
2-Chlorophenol	0.648	ND	ND	ND	43.1	43.0	1	15.0-120			0.359	37
2,4-Dichlorophenol	0.648	ND	ND	ND	42.0	39.5	1	20.0-120			6.45	31
2,4-Dimethylphenol	0.648	ND	ND	ND	39.8	40.4	1	10.0-120			1.16	33
4,6-Dinitro-2-methylphenol	0.648	ND	0.421	ND	52.8	43.8	1	10.0-120			18.9	39
2,4-Dinitrophenol	0.648	ND	ND	ND	46.0	37.9	1	10.0-121			19.5	40
2-Nitrophenol	0.648	ND	ND	ND	42.1	39.8	1	12.0-120			6.04	39
4-Nitrophenol	0.648	ND	0.525	0.421	65.7	52.9	1	10.0-137			21.9	32
Pentachlorophenol	0.648	ND	0.524	0.433	65.6	54.3	1	10.0-160			19.1	31
Phenol	0.648	ND	ND	ND	28.4	41.8	1	12.0-120			37.9	38
2,4,6-Trichlorophenol	0.648	ND	0.444	ND	55.6	45.0	1	19.0-120			21.2	32
(S) Nitrobenzene-d5					*43.5*	*39.0*		*10.0-122*				
(S) 2-Fluorobiphenyl					*48.1*	*42.1*		*15.0-120*				
(S) p-Terphenyl-d14					*51.9*	*51.4*		*10.0-120*				
(S) Phenol-d5					*27.8*	*43.5*		*10.0-120*				
(S) 2-Fluorophenol					*43.8*	*44.4*		*12.0-120*				

L1393400-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393400-07 08/29/21 01:56 • (MS) R3697831-3 08/29/21 02:17 • (MSD) R3697831-4 08/29/21 02:37

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg				%	%		%			%	%
(S) 2,4,6-Tribromophenol					*64.8*	*54.3*		*10.0-127*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P	RPD between the primary and confirmatory analysis exceeded 40%.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
Cardno - Peachtree Corners, GA

6611 Bay Circle
Suite 220
Peachtree Corners. GA 30071

Billing Information:
~~Ashton Smithwick~~
~~Trey Young~~
6611 Bay Circle
Suite 220
Peachtree Corners, GA 30071

Pres Chk

Report to: **William Smithwick**

Email To: **william.smithwick@cardno.com**

Project Description: **Klamath Falls - Chiloquin, OR**

City/State Collected: Chiloquin, OR

Please Circle: PT MT CT ET

Phone: **678-443-1199**

Client Project # CHILOQ100

Lab Project # **CARDNOPCGA-CHILOQUIN**

Collected by (print): A Smithwick

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

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

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®

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

SDG # 1393384
C232

Acctnum: **CARDNOPCGA**
Template: **T192934**
Prelogin: **P865914**
PM: **206 - Jeff Carr**
PB: DU 8/5/21

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXNOSGT,SV8270D 4ozClr-NoPres	NWTPHGX 40mlAmb/MeOH10ml/Syr	PCBs - 8082 4ozClr-NoPres	RCRA Metals 2ozClr-NoPres	TS 2ozClr-NoPres	V8260C 40mlAmb/MeOH10ml/Syr	Remarks	Sample # (lab only)
B-5	Grab	SS	0'-2'	8.17.21	1210	6	X	X	X	X	X	X		-01
B-6		SS	0'-2'		1455	6	X	X	X	X	X	X		-02
B-7		SS	0'-2'		1425	6	X	X	X	X	X	X		-03
B-1		SS	2'-4'		1650	5	X	X	X	X	X	X		-04
B-8		SS	2'-4'		1540	5	X	X	X	X	X	X		-05
B-9		SS	2'-4'		1400	5	X	X		X	X	X		-06
B-2		SS	0'-2'		1115	5	X	X		X	X	X		-07
B-3		SS	0'-2'		1000	5	X	X		X	X	X		-08
B-4		SS	0'-2'		1040	5	X	X		X	X	X		-09
B-6 DUP		SS	0'-2'		1500	X2	X	X		X	X	X	VOCs only	-10

JF

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__UPS __FedEx __Courier _____

Tracking # 5117 4436 1981

Sample Receipt Checklist

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

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	8.18.21	1600			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.3-2.2 °C KC HB	Bottles Received: 50
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Jasmine Fuqua	Date: 8/20/21	Time: 900

If preservation required by Login: Date/Time

Hold:

Conditions: NCF / (OK)

ANALYTICAL REPORT

September 03, 2021

Cardno - Peachtree Corners, GA

Sample Delivery Group:	L1393343
Samples Received:	08/20/2021
Project Number:	CHILOQIWA
Description:	Klamath Falls - Chiloquin, OR

Report To: William Smithwick
6611 Bay Circle
Suite 220
Peachtree Corners, GA 30071

Entire Report Reviewed By:

Jeff Carr
Project Manager

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

TABLE OF CONTENTS

TMW-1 L1393343-01 GW

Collected by: A. Smithwick | Collected date/time: 08/18/21 11:30 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1727654	1	08/24/21 11:03	08/25/21 12:09	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728184	1	08/24/21 12:32	08/26/21 18:54	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729112	1	08/25/21 13:11	08/25/21 13:11	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729044	1	08/26/21 04:42	08/26/21 04:42	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731462	2	08/30/21 23:41	08/31/21 23:30	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1728562	1	08/25/21 07:21	08/25/21 17:28	TMM	Mt. Juliet, TN

TMW-2 L1393343-02 GW

Collected by: A. Smithwick | Collected date/time: 08/18/21 09:10 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1727654	1	08/24/21 11:03	08/25/21 12:20	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728184	1	08/24/21 12:32	08/26/21 18:56	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729112	1	08/25/21 13:34	08/25/21 13:34	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729523	1	08/25/21 23:46	08/25/21 23:46	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731462	2	08/30/21 23:41	08/31/21 23:56	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1728562	1	08/25/21 07:21	08/25/21 17:51	TMM	Mt. Juliet, TN

TMW-3 L1393343-03 GW

Collected by: A. Smithwick | Collected date/time: 08/18/21 13:30 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1727654	1	08/24/21 11:03	08/25/21 12:23	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728184	1	08/24/21 12:32	08/26/21 18:59	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729112	1	08/25/21 13:57	08/25/21 13:57	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729523	1	08/26/21 00:07	08/26/21 00:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731462	1	08/30/21 23:41	09/01/21 00:22	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1728562	1	08/25/21 07:21	08/25/21 18:13	TMM	Mt. Juliet, TN

TMW-4 L1393343-04 GW

Collected by: A. Smithwick | Collected date/time: 08/18/21 12:40 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1727654	1	08/24/21 11:03	08/25/21 12:25	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728184	1	08/24/21 12:32	08/26/21 19:08	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729112	1	08/25/21 14:21	08/25/21 14:21	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729523	1	08/26/21 00:27	08/26/21 00:27	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1731877	1	08/30/21 17:55	08/31/21 15:19	WCR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1728562	1	08/25/21 07:21	08/25/21 18:36	TMM	Mt. Juliet, TN

TMW-5 L1393343-05 GW

Collected by: A. Smithwick | Collected date/time: 08/18/21 10:20 | Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1727654	1	08/24/21 11:03	08/25/21 12:27	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1728184	1	08/24/21 12:32	08/26/21 19:11	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1729112	1	08/25/21 14:44	08/25/21 14:44	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729523	1	08/26/21 00:47	08/26/21 00:47	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1732559	1	09/01/21 06:43	09/01/21 11:24	DMG	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1732865	1.05	09/01/21 09:55	09/01/21 17:56	JMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG1728562	1	08/25/21 07:21	08/25/21 21:57	TMM	Mt. Juliet, TN

TMW-3 DUP L1393343-06 GW

Collected by	Collected date/time	Received date/time
A. Smithwick	08/18/21 13:35	08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1729523	1	08/26/21 01:07	08/26/21 01:07	ACG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	08/25/2021 12:09	WG1727654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	08/26/2021 18:54	WG1728184
Barium	0.0256		0.00500	1	08/26/2021 18:54	WG1728184
Cadmium	ND		0.00200	1	08/26/2021 18:54	WG1728184
Chromium	ND		0.0100	1	08/26/2021 18:54	WG1728184
Lead	ND		0.00600	1	08/26/2021 18:54	WG1728184
Selenium	ND		0.0100	1	08/26/2021 18:54	WG1728184
Silver	ND		0.00500	1	08/26/2021 18:54	WG1728184

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.159	B	0.100	1	08/25/2021 13:11	WG1729112
(S) a,a,a-Trifluorotoluene(FID)	*102*		*78.0-120*		*08/25/2021 13:11*	WG1729112

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	08/26/2021 04:42	WG1729044
Acrylonitrile	ND		0.0100	1	08/26/2021 04:42	WG1729044
Benzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Bromobenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Bromodichloromethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
Bromoform	ND	C3	0.00100	1	08/26/2021 04:42	WG1729044
Bromomethane	ND	C3	0.00500	1	08/26/2021 04:42	WG1729044
n-Butylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
sec-Butylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
tert-Butylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Carbon tetrachloride	ND		0.00100	1	08/26/2021 04:42	WG1729044
Chlorobenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Chlorodibromomethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
Chloroethane	ND		0.00500	1	08/26/2021 04:42	WG1729044
Chloroform	ND		0.00500	1	08/26/2021 04:42	WG1729044
Chloromethane	ND		0.00250	1	08/26/2021 04:42	WG1729044
2-Chlorotoluene	ND		0.00100	1	08/26/2021 04:42	WG1729044
4-Chlorotoluene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,2-Dibromo-3-Chloropropane	ND	C3	0.00500	1	08/26/2021 04:42	WG1729044
1,2-Dibromoethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
Dibromomethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,2-Dichlorobenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,3-Dichlorobenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,4-Dichlorobenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Dichlorodifluoromethane	ND		0.00500	1	08/26/2021 04:42	WG1729044
1,1-Dichloroethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,2-Dichloroethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,1-Dichloroethene	ND		0.00100	1	08/26/2021 04:42	WG1729044
cis-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 04:42	WG1729044
trans-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,2-Dichloropropane	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,1-Dichloropropene	ND		0.00100	1	08/26/2021 04:42	WG1729044

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	ND		0.00100	1	08/26/2021 04:42	WG1729044
cis-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 04:42	WG1729044
trans-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 04:42	WG1729044
2,2-Dichloropropane	ND		0.00100	1	08/26/2021 04:42	WG1729044
Di-isopropyl ether	ND		0.00100	1	08/26/2021 04:42	WG1729044
Ethylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Hexachloro-1,3-butadiene	ND	C3	0.00100	1	08/26/2021 04:42	WG1729044
Isopropylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
p-Isopropyltoluene	ND		0.00100	1	08/26/2021 04:42	WG1729044
2-Butanone (MEK)	ND		0.0100	1	08/26/2021 04:42	WG1729044
Methylene Chloride	ND		0.00500	1	08/26/2021 04:42	WG1729044
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	08/26/2021 04:42	WG1729044
Methyl tert-butyl ether	ND		0.00100	1	08/26/2021 04:42	WG1729044
Naphthalene	ND	C3	0.00500	1	08/26/2021 04:42	WG1729044
n-Propylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Styrene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
Tetrachloroethene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Toluene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,2,3-Trichlorobenzene	ND	C3	0.00100	1	08/26/2021 04:42	WG1729044
1,2,4-Trichlorobenzene	ND	C3	0.00100	1	08/26/2021 04:42	WG1729044
1,1,1-Trichloroethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,1,2-Trichloroethane	ND		0.00100	1	08/26/2021 04:42	WG1729044
Trichloroethene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Trichlorofluoromethane	ND		0.00500	1	08/26/2021 04:42	WG1729044
1,2,3-Trichloropropane	ND		0.00250	1	08/26/2021 04:42	WG1729044
1,2,4-Trimethylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,2,3-Trimethylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
1,3,5-Trimethylbenzene	ND		0.00100	1	08/26/2021 04:42	WG1729044
Vinyl chloride	ND		0.00100	1	08/26/2021 04:42	WG1729044
Xylenes, Total	ND		0.00300	1	08/26/2021 04:42	WG1729044
(S) Toluene-d8	*103*		*80.0-120*		*08/26/2021 04:42*	WG1729044
(S) 4-Bromofluorobenzene	*87.9*		*77.0-126*		*08/26/2021 04:42*	WG1729044
(S) 1,2-Dichloroethane-d4	*118*		*70.0-130*		*08/26/2021 04:42*	WG1729044

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		0.400	2	08/31/2021 23:30	WG1731462
Residual Range Organics (RRO)	ND		0.500	2	08/31/2021 23:30	WG1731462
(S) o-Terphenyl	*47.8*	J2	*52.0-156*		*08/31/2021 23:30*	WG1731462

Sample Narrative:

L1393343-01 WG1731462: Sample produced heavy emulsion during Extraction process, low surr/spike recoveries due to matrix

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Acenaphthylene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Anthracene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Benzidine	ND	J3 J4	0.0100	1	08/25/2021 17:28	WG1728562
Benzo(a)anthracene	ND		0.00100	1	08/25/2021 17:28	WG1728562

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(b)fluoranthene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Benzo(k)fluoranthene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Benzo(g,h,i)perylene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Benzo(a)pyrene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Bis(2-chlorethoxy)methane	ND		0.0100	1	08/25/2021 17:28	WG1728562
Bis(2-chloroethyl)ether	ND		0.0100	1	08/25/2021 17:28	WG1728562
2,2-Oxybis(1-Chloropropane)	ND		0.0100	1	08/25/2021 17:28	WG1728562
4-Bromophenyl-phenylether	ND		0.0100	1	08/25/2021 17:28	WG1728562
2-Chloronaphthalene	ND		0.00100	1	08/25/2021 17:28	WG1728562
4-Chlorophenyl-phenylether	ND		0.0100	1	08/25/2021 17:28	WG1728562
Chrysene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Dibenz(a,h)anthracene	ND		0.00100	1	08/25/2021 17:28	WG1728562
3,3-Dichlorobenzidine	ND		0.0100	1	08/25/2021 17:28	WG1728562
2,4-Dinitrotoluene	ND		0.0100	1	08/25/2021 17:28	WG1728562
2,6-Dinitrotoluene	ND		0.0100	1	08/25/2021 17:28	WG1728562
Fluoranthene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Fluorene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Hexachlorobenzene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Hexachloro-1,3-butadiene	ND		0.0100	1	08/25/2021 17:28	WG1728562
Hexachlorocyclopentadiene	ND		0.0100	1	08/25/2021 17:28	WG1728562
Hexachloroethane	ND		0.0100	1	08/25/2021 17:28	WG1728562
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Isophorone	ND		0.0100	1	08/25/2021 17:28	WG1728562
Naphthalene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Nitrobenzene	ND		0.0100	1	08/25/2021 17:28	WG1728562
n-Nitrosodimethylamine	ND		0.0100	1	08/25/2021 17:28	WG1728562
n-Nitrosodiphenylamine	ND		0.0100	1	08/25/2021 17:28	WG1728562
n-Nitrosodi-n-propylamine	ND		0.0100	1	08/25/2021 17:28	WG1728562
Phenanthrene	ND		0.00100	1	08/25/2021 17:28	WG1728562
Benzylbutyl phthalate	ND		0.00300	1	08/25/2021 17:28	WG1728562
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	08/25/2021 17:28	WG1728562
Di-n-butyl phthalate	ND		0.00300	1	08/25/2021 17:28	WG1728562
Diethyl phthalate	ND		0.00300	1	08/25/2021 17:28	WG1728562
Dimethyl phthalate	ND		0.00300	1	08/25/2021 17:28	WG1728562
Di-n-octyl phthalate	ND		0.00300	1	08/25/2021 17:28	WG1728562
Pyrene	ND		0.00100	1	08/25/2021 17:28	WG1728562
1,2,4-Trichlorobenzene	ND		0.0100	1	08/25/2021 17:28	WG1728562
4-Chloro-3-methylphenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
2-Chlorophenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
2,4-Dichlorophenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
2,4-Dimethylphenol	ND	J3	0.0100	1	08/25/2021 17:28	WG1728562
4,6-Dinitro-2-methylphenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
2,4-Dinitrophenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
2-Nitrophenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
4-Nitrophenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
Pentachlorophenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
Phenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
2,4,6-Trichlorophenol	ND		0.0100	1	08/25/2021 17:28	WG1728562
(S) 2-Fluorophenol	*27.7*		*10.0-120*		*08/25/2021 17:28*	WG1728562
(S) Phenol-d5	*18.1*		*10.0-120*		*08/25/2021 17:28*	WG1728562
(S) Nitrobenzene-d5	*51.6*		*10.0-127*		*08/25/2021 17:28*	WG1728562
(S) 2-Fluorobiphenyl	*56.0*		*10.0-130*		*08/25/2021 17:28*	WG1728562
(S) 2,4,6-Tribromophenol	*55.7*		*10.0-155*		*08/25/2021 17:28*	WG1728562
(S) p-Terphenyl-d14	*53.8*		*10.0-128*		*08/25/2021 17:28*	WG1728562

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

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	08/25/2021 12:20	WG1727654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	08/26/2021 18:56	WG1728184
Barium	0.0609		0.00500	1	08/26/2021 18:56	WG1728184
Cadmium	ND		0.00200	1	08/26/2021 18:56	WG1728184
Chromium	0.0118		0.0100	1	08/26/2021 18:56	WG1728184
Lead	ND		0.00600	1	08/26/2021 18:56	WG1728184
Selenium	ND		0.0100	1	08/26/2021 18:56	WG1728184
Silver	ND		0.00500	1	08/26/2021 18:56	WG1728184

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	0.115	B	0.100	1	08/25/2021 13:34	WG1729112
(S) a,a,a-Trifluorotoluene(FID)	*103*		*78.0-120*		*08/25/2021 13:34*	WG1729112

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	08/25/2021 23:46	WG1729523
Acrylonitrile	ND		0.0100	1	08/25/2021 23:46	WG1729523
Benzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Bromobenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Bromodichloromethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
Bromoform	ND		0.00100	1	08/25/2021 23:46	WG1729523
Bromomethane	ND	C3	0.00500	1	08/25/2021 23:46	WG1729523
n-Butylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
sec-Butylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
tert-Butylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Carbon tetrachloride	ND		0.00100	1	08/25/2021 23:46	WG1729523
Chlorobenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Chlorodibromomethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
Chloroethane	ND		0.00500	1	08/25/2021 23:46	WG1729523
Chloroform	ND		0.00500	1	08/25/2021 23:46	WG1729523
Chloromethane	ND		0.00250	1	08/25/2021 23:46	WG1729523
2-Chlorotoluene	ND		0.00100	1	08/25/2021 23:46	WG1729523
4-Chlorotoluene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	08/25/2021 23:46	WG1729523
1,2-Dibromoethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
Dibromomethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,2-Dichlorobenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,3-Dichlorobenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,4-Dichlorobenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Dichlorodifluoromethane	ND		0.00500	1	08/25/2021 23:46	WG1729523
1,1-Dichloroethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,2-Dichloroethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,1-Dichloroethene	ND		0.00100	1	08/25/2021 23:46	WG1729523
cis-1,2-Dichloroethene	ND		0.00100	1	08/25/2021 23:46	WG1729523
trans-1,2-Dichloroethene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,2-Dichloropropane	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,1-Dichloropropene	ND		0.00100	1	08/25/2021 23:46	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	ND		0.00100	1	08/25/2021 23:46	WG1729523
cis-1,3-Dichloropropene	ND		0.00100	1	08/25/2021 23:46	WG1729523
trans-1,3-Dichloropropene	ND		0.00100	1	08/25/2021 23:46	WG1729523
2,2-Dichloropropane	ND		0.00100	1	08/25/2021 23:46	WG1729523
Di-isopropyl ether	ND		0.00100	1	08/25/2021 23:46	WG1729523
Ethylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Hexachloro-1,3-butadiene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Isopropylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
p-Isopropyltoluene	ND		0.00100	1	08/25/2021 23:46	WG1729523
2-Butanone (MEK)	ND	C3	0.0100	1	08/25/2021 23:46	WG1729523
Methylene Chloride	ND		0.00500	1	08/25/2021 23:46	WG1729523
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	08/25/2021 23:46	WG1729523
Methyl tert-butyl ether	ND		0.00100	1	08/25/2021 23:46	WG1729523
Naphthalene	ND		0.00500	1	08/25/2021 23:46	WG1729523
n-Propylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Styrene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
Tetrachloroethene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Toluene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,2,3-Trichlorobenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,2,4-Trichlorobenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,1,1-Trichloroethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,1,2-Trichloroethane	ND		0.00100	1	08/25/2021 23:46	WG1729523
Trichloroethene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Trichlorofluoromethane	ND		0.00500	1	08/25/2021 23:46	WG1729523
1,2,3-Trichloropropane	ND		0.00250	1	08/25/2021 23:46	WG1729523
1,2,4-Trimethylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,2,3-Trimethylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
1,3,5-Trimethylbenzene	ND		0.00100	1	08/25/2021 23:46	WG1729523
Vinyl chloride	ND		0.00100	1	08/25/2021 23:46	WG1729523
Xylenes, Total	ND		0.00300	1	08/25/2021 23:46	WG1729523
(S) Toluene-d8	*106*		*80.0-120*		*08/25/2021 23:46*	WG1729523
(S) 4-Bromofluorobenzene	*91.8*		*77.0-126*		*08/25/2021 23:46*	WG1729523
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*08/25/2021 23:46*	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		0.400	2	08/31/2021 23:56	WG1731462
Residual Range Organics (RRO)	ND		0.500	2	08/31/2021 23:56	WG1731462
(S) o-Terphenyl	*35.7*	J2	*52.0-156*		*08/31/2021 23:56*	WG1731462

Sample Narrative:

L1393343-02 WG1731462: Sample produced heavy emulsion during Extraction process, low surr/spike recoveries due to matrix

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Acenaphthylene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Anthracene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Benzidine	ND	J3 J4	0.0100	1	08/25/2021 17:51	WG1728562
Benzo(a)anthracene	ND		0.00100	1	08/25/2021 17:51	WG1728562

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(b)fluoranthene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Benzo(k)fluoranthene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Benzo(g,h,i)perylene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Benzo(a)pyrene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Bis(2-chlorethoxy)methane	ND		0.0100	1	08/25/2021 17:51	WG1728562
Bis(2-chloroethyl)ether	ND		0.0100	1	08/25/2021 17:51	WG1728562
2,2-Oxybis(1-Chloropropane)	ND		0.0100	1	08/25/2021 17:51	WG1728562
4-Bromophenyl-phenylether	ND		0.0100	1	08/25/2021 17:51	WG1728562
2-Chloronaphthalene	ND		0.00100	1	08/25/2021 17:51	WG1728562
4-Chlorophenyl-phenylether	ND		0.0100	1	08/25/2021 17:51	WG1728562
Chrysene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Dibenz(a,h)anthracene	ND		0.00100	1	08/25/2021 17:51	WG1728562
3,3-Dichlorobenzidine	ND		0.0100	1	08/25/2021 17:51	WG1728562
2,4-Dinitrotoluene	ND		0.0100	1	08/25/2021 17:51	WG1728562
2,6-Dinitrotoluene	ND		0.0100	1	08/25/2021 17:51	WG1728562
Fluoranthene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Fluorene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Hexachlorobenzene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Hexachloro-1,3-butadiene	ND		0.0100	1	08/25/2021 17:51	WG1728562
Hexachlorocyclopentadiene	ND		0.0100	1	08/25/2021 17:51	WG1728562
Hexachloroethane	ND		0.0100	1	08/25/2021 17:51	WG1728562
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Isophorone	ND		0.0100	1	08/25/2021 17:51	WG1728562
Naphthalene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Nitrobenzene	ND		0.0100	1	08/25/2021 17:51	WG1728562
n-Nitrosodimethylamine	ND		0.0100	1	08/25/2021 17:51	WG1728562
n-Nitrosodiphenylamine	ND		0.0100	1	08/25/2021 17:51	WG1728562
n-Nitrosodi-n-propylamine	ND		0.0100	1	08/25/2021 17:51	WG1728562
Phenanthrene	ND		0.00100	1	08/25/2021 17:51	WG1728562
Benzylbutyl phthalate	ND		0.00300	1	08/25/2021 17:51	WG1728562
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	08/25/2021 17:51	WG1728562
Di-n-butyl phthalate	ND		0.00300	1	08/25/2021 17:51	WG1728562
Diethyl phthalate	ND		0.00300	1	08/25/2021 17:51	WG1728562
Dimethyl phthalate	ND		0.00300	1	08/25/2021 17:51	WG1728562
Di-n-octyl phthalate	ND		0.00300	1	08/25/2021 17:51	WG1728562
Pyrene	ND		0.00100	1	08/25/2021 17:51	WG1728562
1,2,4-Trichlorobenzene	ND		0.0100	1	08/25/2021 17:51	WG1728562
4-Chloro-3-methylphenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
2-Chlorophenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
2,4-Dichlorophenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
2,4-Dimethylphenol	ND	J3	0.0100	1	08/25/2021 17:51	WG1728562
4,6-Dinitro-2-methylphenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
2,4-Dinitrophenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
2-Nitrophenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
4-Nitrophenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
Pentachlorophenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
Phenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
2,4,6-Trichlorophenol	ND		0.0100	1	08/25/2021 17:51	WG1728562
(S) 2-Fluorophenol	*29.4*		*10.0-120*		*08/25/2021 17:51*	WG1728562
(S) Phenol-d5	*19.4*		*10.0-120*		*08/25/2021 17:51*	WG1728562
(S) Nitrobenzene-d5	*50.1*		*10.0-127*		*08/25/2021 17:51*	WG1728562
(S) 2-Fluorobiphenyl	*39.7*		*10.0-130*		*08/25/2021 17:51*	WG1728562
(S) 2,4,6-Tribromophenol	*46.8*		*10.0-155*		*08/25/2021 17:51*	WG1728562
(S) p-Terphenyl-d14	*31.5*		*10.0-128*		*08/25/2021 17:51*	WG1728562

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

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	08/25/2021 12:23	WG1727654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	08/26/2021 18:59	WG1728184
Barium	0.0383		0.00500	1	08/26/2021 18:59	WG1728184
Cadmium	ND		0.00200	1	08/26/2021 18:59	WG1728184
Chromium	ND		0.0100	1	08/26/2021 18:59	WG1728184
Lead	0.0267		0.00600	1	08/26/2021 18:59	WG1728184
Selenium	ND		0.0100	1	08/26/2021 18:59	WG1728184
Silver	ND		0.00500	1	08/26/2021 18:59	WG1728184

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		0.100	1	08/25/2021 13:57	WG1729112
(S) a,a,a-Trifluorotoluene(FID)	*98.7*		*78.0-120*		*08/25/2021 13:57*	WG1729112

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	08/26/2021 00:07	WG1729523
Acrylonitrile	ND		0.0100	1	08/26/2021 00:07	WG1729523
Benzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Bromobenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Bromodichloromethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
Bromoform	ND		0.00100	1	08/26/2021 00:07	WG1729523
Bromomethane	ND	C3	0.00500	1	08/26/2021 00:07	WG1729523
n-Butylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
sec-Butylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
tert-Butylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Carbon tetrachloride	ND		0.00100	1	08/26/2021 00:07	WG1729523
Chlorobenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Chlorodibromomethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
Chloroethane	ND		0.00500	1	08/26/2021 00:07	WG1729523
Chloroform	ND		0.00500	1	08/26/2021 00:07	WG1729523
Chloromethane	ND		0.00250	1	08/26/2021 00:07	WG1729523
2-Chlorotoluene	ND		0.00100	1	08/26/2021 00:07	WG1729523
4-Chlorotoluene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	08/26/2021 00:07	WG1729523
1,2-Dibromoethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
Dibromomethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,2-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,3-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,4-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Dichlorodifluoromethane	ND		0.00500	1	08/26/2021 00:07	WG1729523
1,1-Dichloroethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,2-Dichloroethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,1-Dichloroethene	ND		0.00100	1	08/26/2021 00:07	WG1729523
cis-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 00:07	WG1729523
trans-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,2-Dichloropropane	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,1-Dichloropropene	ND		0.00100	1	08/26/2021 00:07	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	ND		0.00100	1	08/26/2021 00:07	WG1729523
cis-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 00:07	WG1729523
trans-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 00:07	WG1729523
2,2-Dichloropropane	ND		0.00100	1	08/26/2021 00:07	WG1729523
Di-isopropyl ether	ND		0.00100	1	08/26/2021 00:07	WG1729523
Ethylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Hexachloro-1,3-butadiene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Isopropylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
p-Isopropyltoluene	ND		0.00100	1	08/26/2021 00:07	WG1729523
2-Butanone (MEK)	ND	C3	0.0100	1	08/26/2021 00:07	WG1729523
Methylene Chloride	ND		0.00500	1	08/26/2021 00:07	WG1729523
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	08/26/2021 00:07	WG1729523
Methyl tert-butyl ether	ND		0.00100	1	08/26/2021 00:07	WG1729523
Naphthalene	ND		0.00500	1	08/26/2021 00:07	WG1729523
n-Propylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Styrene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
Tetrachloroethene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Toluene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,2,3-Trichlorobenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,2,4-Trichlorobenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,1,1-Trichloroethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,1,2-Trichloroethane	ND		0.00100	1	08/26/2021 00:07	WG1729523
Trichloroethene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Trichlorofluoromethane	ND		0.00500	1	08/26/2021 00:07	WG1729523
1,2,3-Trichloropropane	ND		0.00250	1	08/26/2021 00:07	WG1729523
1,2,4-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,2,3-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
1,3,5-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:07	WG1729523
Vinyl chloride	ND		0.00100	1	08/26/2021 00:07	WG1729523
Xylenes, Total	ND		0.00300	1	08/26/2021 00:07	WG1729523
(S) Toluene-d8	*108*		*80.0-120*		*08/26/2021 00:07*	WG1729523
(S) 4-Bromofluorobenzene	*98.6*		*77.0-126*		*08/26/2021 00:07*	WG1729523
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*08/26/2021 00:07*	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		0.200	1	09/01/2021 00:22	WG1731462
Residual Range Organics (RRO)	ND		0.250	1	09/01/2021 00:22	WG1731462
(S) o-Terphenyl	*57.0*		*52.0-156*		*09/01/2021 00:22*	WG1731462

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Acenaphthylene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Anthracene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Benzidine	ND	J3 J4	0.0100	1	08/25/2021 18:13	WG1728562
Benzo(a)anthracene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Benzo(b)fluoranthene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Benzo(k)fluoranthene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Benzo(g,h,i)perylene	ND		0.00100	1	08/25/2021 18:13	WG1728562

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Bis(2-chlorethoxy)methane	ND		0.0100	1	08/25/2021 18:13	WG1728562
Bis(2-chloroethyl)ether	ND		0.0100	1	08/25/2021 18:13	WG1728562
2,2-Oxybis(1-Chloropropane)	ND		0.0100	1	08/25/2021 18:13	WG1728562
4-Bromophenyl-phenylether	ND		0.0100	1	08/25/2021 18:13	WG1728562
2-Chloronaphthalene	ND		0.00100	1	08/25/2021 18:13	WG1728562
4-Chlorophenyl-phenylether	ND		0.0100	1	08/25/2021 18:13	WG1728562
Chrysene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Dibenz(a,h)anthracene	ND		0.00100	1	08/25/2021 18:13	WG1728562
3,3-Dichlorobenzidine	ND		0.0100	1	08/25/2021 18:13	WG1728562
2,4-Dinitrotoluene	ND		0.0100	1	08/25/2021 18:13	WG1728562
2,6-Dinitrotoluene	ND		0.0100	1	08/25/2021 18:13	WG1728562
Fluoranthene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Fluorene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Hexachlorobenzene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Hexachloro-1,3-butadiene	ND		0.0100	1	08/25/2021 18:13	WG1728562
Hexachlorocyclopentadiene	ND		0.0100	1	08/25/2021 18:13	WG1728562
Hexachloroethane	ND		0.0100	1	08/25/2021 18:13	WG1728562
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Isophorone	ND		0.0100	1	08/25/2021 18:13	WG1728562
Naphthalene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Nitrobenzene	ND		0.0100	1	08/25/2021 18:13	WG1728562
n-Nitrosodimethylamine	ND		0.0100	1	08/25/2021 18:13	WG1728562
n-Nitrosodiphenylamine	ND		0.0100	1	08/25/2021 18:13	WG1728562
n-Nitrosodi-n-propylamine	ND		0.0100	1	08/25/2021 18:13	WG1728562
Phenanthrene	ND		0.00100	1	08/25/2021 18:13	WG1728562
Benzylbutyl phthalate	ND		0.00300	1	08/25/2021 18:13	WG1728562
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	08/25/2021 18:13	WG1728562
Di-n-butyl phthalate	ND		0.00300	1	08/25/2021 18:13	WG1728562
Diethyl phthalate	ND		0.00300	1	08/25/2021 18:13	WG1728562
Dimethyl phthalate	ND		0.00300	1	08/25/2021 18:13	WG1728562
Di-n-octyl phthalate	ND		0.00300	1	08/25/2021 18:13	WG1728562
Pyrene	ND		0.00100	1	08/25/2021 18:13	WG1728562
1,2,4-Trichlorobenzene	ND		0.0100	1	08/25/2021 18:13	WG1728562
4-Chloro-3-methylphenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
2-Chlorophenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
2,4-Dichlorophenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
2,4-Dimethylphenol	ND	J3	0.0100	1	08/25/2021 18:13	WG1728562
4,6-Dinitro-2-methylphenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
2,4-Dinitrophenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
2-Nitrophenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
4-Nitrophenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
Pentachlorophenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
Phenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
2,4,6-Trichlorophenol	ND		0.0100	1	08/25/2021 18:13	WG1728562
(S) 2-Fluorophenol	*27.5*		*10.0-120*		*08/25/2021 18:13*	WG1728562
(S) Phenol-d5	*18.6*		*10.0-120*		*08/25/2021 18:13*	WG1728562
(S) Nitrobenzene-d5	*49.4*		*10.0-127*		*08/25/2021 18:13*	WG1728562
(S) 2-Fluorobiphenyl	*51.8*		*10.0-130*		*08/25/2021 18:13*	WG1728562
(S) 2,4,6-Tribromophenol	*47.7*		*10.0-155*		*08/25/2021 18:13*	WG1728562
(S) p-Terphenyl-d14	*55.0*		*10.0-128*		*08/25/2021 18:13*	WG1728562

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	08/25/2021 12:25	WG1727654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	08/26/2021 19:08	WG1728184
Barium	0.00910		0.00500	1	08/26/2021 19:08	WG1728184
Cadmium	ND		0.00200	1	08/26/2021 19:08	WG1728184
Chromium	ND		0.0100	1	08/26/2021 19:08	WG1728184
Lead	ND		0.00600	1	08/26/2021 19:08	WG1728184
Selenium	ND		0.0100	1	08/26/2021 19:08	WG1728184
Silver	ND		0.00500	1	08/26/2021 19:08	WG1728184

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		0.100	1	08/25/2021 14:21	WG1729112
(S) a,a,a-Trifluorotoluene(FID)	*101*		*78.0-120*		*08/25/2021 14:21*	WG1729112

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	08/26/2021 00:27	WG1729523
Acrylonitrile	ND		0.0100	1	08/26/2021 00:27	WG1729523
Benzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Bromobenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Bromodichloromethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
Bromoform	ND		0.00100	1	08/26/2021 00:27	WG1729523
Bromomethane	ND	C3	0.00500	1	08/26/2021 00:27	WG1729523
n-Butylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
sec-Butylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
tert-Butylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Carbon tetrachloride	ND		0.00100	1	08/26/2021 00:27	WG1729523
Chlorobenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Chlorodibromomethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
Chloroethane	ND		0.00500	1	08/26/2021 00:27	WG1729523
Chloroform	ND		0.00500	1	08/26/2021 00:27	WG1729523
Chloromethane	ND		0.00250	1	08/26/2021 00:27	WG1729523
2-Chlorotoluene	ND		0.00100	1	08/26/2021 00:27	WG1729523
4-Chlorotoluene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	08/26/2021 00:27	WG1729523
1,2-Dibromoethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
Dibromomethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,2-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,3-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,4-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Dichlorodifluoromethane	ND		0.00500	1	08/26/2021 00:27	WG1729523
1,1-Dichloroethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,2-Dichloroethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,1-Dichloroethene	ND		0.00100	1	08/26/2021 00:27	WG1729523
cis-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 00:27	WG1729523
trans-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,2-Dichloropropane	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,1-Dichloropropene	ND		0.00100	1	08/26/2021 00:27	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	ND		0.00100	1	08/26/2021 00:27	WG1729523
cis-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 00:27	WG1729523
trans-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 00:27	WG1729523
2,2-Dichloropropane	ND		0.00100	1	08/26/2021 00:27	WG1729523
Di-isopropyl ether	ND		0.00100	1	08/26/2021 00:27	WG1729523
Ethylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Hexachloro-1,3-butadiene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Isopropylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
p-Isopropyltoluene	ND		0.00100	1	08/26/2021 00:27	WG1729523
2-Butanone (MEK)	ND	C3	0.0100	1	08/26/2021 00:27	WG1729523
Methylene Chloride	ND		0.00500	1	08/26/2021 00:27	WG1729523
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	08/26/2021 00:27	WG1729523
Methyl tert-butyl ether	ND		0.00100	1	08/26/2021 00:27	WG1729523
Naphthalene	ND		0.00500	1	08/26/2021 00:27	WG1729523
n-Propylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Styrene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
Tetrachloroethene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Toluene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,2,3-Trichlorobenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,2,4-Trichlorobenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,1,1-Trichloroethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,1,2-Trichloroethane	ND		0.00100	1	08/26/2021 00:27	WG1729523
Trichloroethene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Trichlorofluoromethane	ND		0.00500	1	08/26/2021 00:27	WG1729523
1,2,3-Trichloropropane	ND		0.00250	1	08/26/2021 00:27	WG1729523
1,2,4-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,2,3-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
1,3,5-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:27	WG1729523
Vinyl chloride	ND		0.00100	1	08/26/2021 00:27	WG1729523
Xylenes, Total	ND		0.00300	1	08/26/2021 00:27	WG1729523
(S) Toluene-d8	*112*		*80.0-120*		*08/26/2021 00:27*	WG1729523
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*08/26/2021 00:27*	WG1729523
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*08/26/2021 00:27*	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND	J3	0.200	1	08/31/2021 15:19	WG1731877
Residual Range Organics (RRO)	ND		0.250	1	08/31/2021 15:19	WG1731877
(S) o-Terphenyl	*79.5*		*52.0-156*		*08/31/2021 15:19*	WG1731877

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Acenaphthylene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Anthracene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Benzidine	ND	J3 J4	0.0100	1	08/25/2021 18:36	WG1728562
Benzo(a)anthracene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Benzo(b)fluoranthene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Benzo(k)fluoranthene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Benzo(g,h,i)perylene	ND		0.00100	1	08/25/2021 18:36	WG1728562

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Bis(2-chlorethoxy)methane	ND		0.0100	1	08/25/2021 18:36	WG1728562
Bis(2-chloroethyl)ether	ND		0.0100	1	08/25/2021 18:36	WG1728562
2,2-Oxybis(1-Chloropropane)	ND		0.0100	1	08/25/2021 18:36	WG1728562
4-Bromophenyl-phenylether	ND		0.0100	1	08/25/2021 18:36	WG1728562
2-Chloronaphthalene	ND		0.00100	1	08/25/2021 18:36	WG1728562
4-Chlorophenyl-phenylether	ND		0.0100	1	08/25/2021 18:36	WG1728562
Chrysene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Dibenz(a,h)anthracene	ND		0.00100	1	08/25/2021 18:36	WG1728562
3,3-Dichlorobenzidine	ND		0.0100	1	08/25/2021 18:36	WG1728562
2,4-Dinitrotoluene	ND		0.0100	1	08/25/2021 18:36	WG1728562
2,6-Dinitrotoluene	ND		0.0100	1	08/25/2021 18:36	WG1728562
Fluoranthene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Fluorene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Hexachlorobenzene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Hexachloro-1,3-butadiene	ND		0.0100	1	08/25/2021 18:36	WG1728562
Hexachlorocyclopentadiene	ND		0.0100	1	08/25/2021 18:36	WG1728562
Hexachloroethane	ND		0.0100	1	08/25/2021 18:36	WG1728562
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Isophorone	ND		0.0100	1	08/25/2021 18:36	WG1728562
Naphthalene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Nitrobenzene	ND		0.0100	1	08/25/2021 18:36	WG1728562
n-Nitrosodimethylamine	ND		0.0100	1	08/25/2021 18:36	WG1728562
n-Nitrosodiphenylamine	ND		0.0100	1	08/25/2021 18:36	WG1728562
n-Nitrosodi-n-propylamine	ND		0.0100	1	08/25/2021 18:36	WG1728562
Phenanthrene	ND		0.00100	1	08/25/2021 18:36	WG1728562
Benzylbutyl phthalate	ND		0.00300	1	08/25/2021 18:36	WG1728562
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	08/25/2021 18:36	WG1728562
Di-n-butyl phthalate	ND		0.00300	1	08/25/2021 18:36	WG1728562
Diethyl phthalate	ND		0.00300	1	08/25/2021 18:36	WG1728562
Dimethyl phthalate	ND		0.00300	1	08/25/2021 18:36	WG1728562
Di-n-octyl phthalate	ND		0.00300	1	08/25/2021 18:36	WG1728562
Pyrene	ND		0.00100	1	08/25/2021 18:36	WG1728562
1,2,4-Trichlorobenzene	ND		0.0100	1	08/25/2021 18:36	WG1728562
4-Chloro-3-methylphenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
2-Chlorophenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
2,4-Dichlorophenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
2,4-Dimethylphenol	ND	J3	0.0100	1	08/25/2021 18:36	WG1728562
4,6-Dinitro-2-methylphenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
2,4-Dinitrophenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
2-Nitrophenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
4-Nitrophenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
Pentachlorophenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
Phenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
2,4,6-Trichlorophenol	ND		0.0100	1	08/25/2021 18:36	WG1728562
(S) 2-Fluorophenol	*28.9*		*10.0-120*		*08/25/2021 18:36*	WG1728562
(S) Phenol-d5	*18.3*		*10.0-120*		*08/25/2021 18:36*	WG1728562
(S) Nitrobenzene-d5	*49.6*		*10.0-127*		*08/25/2021 18:36*	WG1728562
(S) 2-Fluorobiphenyl	*56.1*		*10.0-130*		*08/25/2021 18:36*	WG1728562
(S) 2,4,6-Tribromophenol	*54.2*		*10.0-155*		*08/25/2021 18:36*	WG1728562
(S) p-Terphenyl-d14	*61.4*		*10.0-128*		*08/25/2021 18:36*	WG1728562

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	08/25/2021 12:27	WG1727654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	08/26/2021 19:11	WG1728184
Barium	0.0919		0.00500	1	08/26/2021 19:11	WG1728184
Cadmium	ND		0.00200	1	08/26/2021 19:11	WG1728184
Chromium	0.0140		0.0100	1	08/26/2021 19:11	WG1728184
Lead	ND		0.00600	1	08/26/2021 19:11	WG1728184
Selenium	ND		0.0100	1	08/26/2021 19:11	WG1728184
Silver	ND		0.00500	1	08/26/2021 19:11	WG1728184

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		0.100	1	08/25/2021 14:44	WG1729112
(S) a,a,a-Trifluorotoluene(FID)	*101*		*78.0-120*		*08/25/2021 14:44*	WG1729112

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	08/26/2021 00:47	WG1729523
Acrylonitrile	ND		0.0100	1	08/26/2021 00:47	WG1729523
Benzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Bromobenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Bromodichloromethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
Bromoform	ND		0.00100	1	08/26/2021 00:47	WG1729523
Bromomethane	ND	C3	0.00500	1	08/26/2021 00:47	WG1729523
n-Butylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
sec-Butylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
tert-Butylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Carbon tetrachloride	ND		0.00100	1	08/26/2021 00:47	WG1729523
Chlorobenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Chlorodibromomethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
Chloroethane	ND		0.00500	1	08/26/2021 00:47	WG1729523
Chloroform	ND		0.00500	1	08/26/2021 00:47	WG1729523
Chloromethane	ND		0.00250	1	08/26/2021 00:47	WG1729523
2-Chlorotoluene	ND		0.00100	1	08/26/2021 00:47	WG1729523
4-Chlorotoluene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	08/26/2021 00:47	WG1729523
1,2-Dibromoethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
Dibromomethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,2-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,3-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,4-Dichlorobenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Dichlorodifluoromethane	ND		0.00500	1	08/26/2021 00:47	WG1729523
1,1-Dichloroethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,2-Dichloroethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,1-Dichloroethene	ND		0.00100	1	08/26/2021 00:47	WG1729523
cis-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 00:47	WG1729523
trans-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,2-Dichloropropane	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,1-Dichloropropene	ND		0.00100	1	08/26/2021 00:47	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	ND		0.00100	1	08/26/2021 00:47	WG1729523
cis-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 00:47	WG1729523
trans-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 00:47	WG1729523
2,2-Dichloropropane	ND		0.00100	1	08/26/2021 00:47	WG1729523
Di-isopropyl ether	ND		0.00100	1	08/26/2021 00:47	WG1729523
Ethylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Hexachloro-1,3-butadiene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Isopropylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
p-Isopropyltoluene	ND		0.00100	1	08/26/2021 00:47	WG1729523
2-Butanone (MEK)	ND	C3	0.0100	1	08/26/2021 00:47	WG1729523
Methylene Chloride	ND		0.00500	1	08/26/2021 00:47	WG1729523
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	08/26/2021 00:47	WG1729523
Methyl tert-butyl ether	ND		0.00100	1	08/26/2021 00:47	WG1729523
Naphthalene	ND		0.00500	1	08/26/2021 00:47	WG1729523
n-Propylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Styrene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
Tetrachloroethene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Toluene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,2,3-Trichlorobenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,2,4-Trichlorobenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,1,1-Trichloroethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,1,2-Trichloroethane	ND		0.00100	1	08/26/2021 00:47	WG1729523
Trichloroethene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Trichlorofluoromethane	ND		0.00500	1	08/26/2021 00:47	WG1729523
1,2,3-Trichloropropane	ND		0.00250	1	08/26/2021 00:47	WG1729523
1,2,4-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,2,3-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
1,3,5-Trimethylbenzene	ND		0.00100	1	08/26/2021 00:47	WG1729523
Vinyl chloride	ND		0.00100	1	08/26/2021 00:47	WG1729523
Xylenes, Total	ND		0.00300	1	08/26/2021 00:47	WG1729523
(S) Toluene-d8	*110*		*80.0-120*		*08/26/2021 00:47*	WG1729523
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*08/26/2021 00:47*	WG1729523
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*08/26/2021 00:47*	WG1729523

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	ND		0.200	1	09/01/2021 11:24	WG1732559
Residual Range Organics (RRO)	ND		0.250	1	09/01/2021 11:24	WG1732559
(S) o-Terphenyl	*61.6*		*52.0-156*		*09/01/2021 11:24*	WG1732559

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
PCB 1016	ND	J3 J4	0.000525	1.05	09/01/2021 17:56	WG1732865
PCB 1221	ND		0.000525	1.05	09/01/2021 17:56	WG1732865
PCB 1232	ND		0.000525	1.05	09/01/2021 17:56	WG1732865
PCB 1242	ND		0.000525	1.05	09/01/2021 17:56	WG1732865
PCB 1248	ND		0.000525	1.05	09/01/2021 17:56	WG1732865
PCB 1254	ND		0.000525	1.05	09/01/2021 17:56	WG1732865
PCB 1260	ND		0.000525	1.05	09/01/2021 17:56	WG1732865
(S) Decachlorobiphenyl	*84.0*		*10.0-128*		*09/01/2021 17:56*	WG1732865

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
(S) Tetrachloro-m-xylene	*104*		*10.0-127*		*09/01/2021 17:56*	WG1732865

Sample Narrative:

L1393343-05 WG1732865: Dilution due to sample volume.

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Acenaphthylene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Anthracene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Benzidine	ND	J3 J4	0.0100	1	08/25/2021 21:57	WG1728562
Benzo(a)anthracene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Benzo(b)fluoranthene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Benzo(k)fluoranthene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Benzo(g,h,i)perylene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Benzo(a)pyrene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Bis(2-chlorethoxy)methane	ND		0.0100	1	08/25/2021 21:57	WG1728562
Bis(2-chloroethyl)ether	ND		0.0100	1	08/25/2021 21:57	WG1728562
2,2-Oxybis(1-Chloropropane)	ND		0.0100	1	08/25/2021 21:57	WG1728562
4-Bromophenyl-phenylether	ND		0.0100	1	08/25/2021 21:57	WG1728562
2-Chloronaphthalene	ND		0.00100	1	08/25/2021 21:57	WG1728562
4-Chlorophenyl-phenylether	ND		0.0100	1	08/25/2021 21:57	WG1728562
Chrysene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Dibenz(a,h)anthracene	ND		0.00100	1	08/25/2021 21:57	WG1728562
3,3-Dichlorobenzidine	ND		0.0100	1	08/25/2021 21:57	WG1728562
2,4-Dinitrotoluene	ND		0.0100	1	08/25/2021 21:57	WG1728562
2,6-Dinitrotoluene	ND		0.0100	1	08/25/2021 21:57	WG1728562
Fluoranthene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Fluorene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Hexachlorobenzene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Hexachloro-1,3-butadiene	ND		0.0100	1	08/25/2021 21:57	WG1728562
Hexachlorocyclopentadiene	ND		0.0100	1	08/25/2021 21:57	WG1728562
Hexachloroethane	ND		0.0100	1	08/25/2021 21:57	WG1728562
Indeno(1,2,3-cd)pyrene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Isophorone	ND		0.0100	1	08/25/2021 21:57	WG1728562
Naphthalene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Nitrobenzene	ND		0.0100	1	08/25/2021 21:57	WG1728562
n-Nitrosodimethylamine	ND		0.0100	1	08/25/2021 21:57	WG1728562
n-Nitrosodiphenylamine	ND		0.0100	1	08/25/2021 21:57	WG1728562
n-Nitrosodi-n-propylamine	ND		0.0100	1	08/25/2021 21:57	WG1728562
Phenanthrene	ND		0.00100	1	08/25/2021 21:57	WG1728562
Benzylbutyl phthalate	ND		0.00300	1	08/25/2021 21:57	WG1728562
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	08/25/2021 21:57	WG1728562
Di-n-butyl phthalate	ND		0.00300	1	08/25/2021 21:57	WG1728562
Diethyl phthalate	ND		0.00300	1	08/25/2021 21:57	WG1728562
Dimethyl phthalate	ND		0.00300	1	08/25/2021 21:57	WG1728562
Di-n-octyl phthalate	ND		0.00300	1	08/25/2021 21:57	WG1728562
Pyrene	ND		0.00100	1	08/25/2021 21:57	WG1728562
1,2,4-Trichlorobenzene	ND		0.0100	1	08/25/2021 21:57	WG1728562
4-Chloro-3-methylphenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
2-Chlorophenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
2,4-Dichlorophenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
2,4-Dimethylphenol	ND	J3	0.0100	1	08/25/2021 21:57	WG1728562
4,6-Dinitro-2-methylphenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
2,4-Dinitrophenol	ND		0.0100	1	08/25/2021 21:57	WG1728562

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
2-Nitrophenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
4-Nitrophenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
Pentachlorophenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
Phenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
2,4,6-Trichlorophenol	ND		0.0100	1	08/25/2021 21:57	WG1728562
(S) 2-Fluorophenol	*22.4*		*10.0-120*		*08/25/2021 21:57*	WG1728562
(S) Phenol-d5	*15.9*		*10.0-120*		*08/25/2021 21:57*	WG1728562
(S) Nitrobenzene-d5	*41.8*		*10.0-127*		*08/25/2021 21:57*	WG1728562
(S) 2-Fluorobiphenyl	*45.2*		*10.0-130*		*08/25/2021 21:57*	WG1728562
(S) 2,4,6-Tribromophenol	*39.5*		*10.0-155*		*08/25/2021 21:57*	WG1728562
(S) p-Terphenyl-d14	*41.5*		*10.0-128*		*08/25/2021 21:57*	WG1728562

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	08/26/2021 01:07	WG1729523
Acrylonitrile	ND		0.0100	1	08/26/2021 01:07	WG1729523
Benzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Bromobenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Bromodichloromethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
Bromoform	ND		0.00100	1	08/26/2021 01:07	WG1729523
Bromomethane	ND	C3	0.00500	1	08/26/2021 01:07	WG1729523
n-Butylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
sec-Butylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
tert-Butylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Carbon tetrachloride	ND		0.00100	1	08/26/2021 01:07	WG1729523
Chlorobenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Chlorodibromomethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
Chloroethane	ND		0.00500	1	08/26/2021 01:07	WG1729523
Chloroform	ND		0.00500	1	08/26/2021 01:07	WG1729523
Chloromethane	ND		0.00250	1	08/26/2021 01:07	WG1729523
2-Chlorotoluene	ND		0.00100	1	08/26/2021 01:07	WG1729523
4-Chlorotoluene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	08/26/2021 01:07	WG1729523
1,2-Dibromoethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
Dibromomethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,2-Dichlorobenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,3-Dichlorobenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,4-Dichlorobenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Dichlorodifluoromethane	ND		0.00500	1	08/26/2021 01:07	WG1729523
1,1-Dichloroethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,2-Dichloroethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,1-Dichloroethene	ND		0.00100	1	08/26/2021 01:07	WG1729523
cis-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 01:07	WG1729523
trans-1,2-Dichloroethene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,2-Dichloropropane	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,1-Dichloropropene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,3-Dichloropropane	ND		0.00100	1	08/26/2021 01:07	WG1729523
cis-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 01:07	WG1729523
trans-1,3-Dichloropropene	ND		0.00100	1	08/26/2021 01:07	WG1729523
2,2-Dichloropropane	ND		0.00100	1	08/26/2021 01:07	WG1729523
Di-isopropyl ether	ND		0.00100	1	08/26/2021 01:07	WG1729523
Ethylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Hexachloro-1,3-butadiene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Isopropylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
p-Isopropyltoluene	ND		0.00100	1	08/26/2021 01:07	WG1729523
2-Butanone (MEK)	ND	C3	0.0100	1	08/26/2021 01:07	WG1729523
Methylene Chloride	ND		0.00500	1	08/26/2021 01:07	WG1729523
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	08/26/2021 01:07	WG1729523
Methyl tert-butyl ether	ND		0.00100	1	08/26/2021 01:07	WG1729523
Naphthalene	ND		0.00500	1	08/26/2021 01:07	WG1729523
n-Propylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Styrene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,1,1,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,1,2,2-Tetrachloroethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
Tetrachloroethene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Toluene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,2,3-Trichlorobenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,2,4-Trichlorobenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,1,1-Trichloroethane	ND		0.00100	1	08/26/2021 01:07	WG1729523

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	ND		0.00100	1	08/26/2021 01:07	WG1729523
Trichloroethene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Trichlorofluoromethane	ND		0.00500	1	08/26/2021 01:07	WG1729523
1,2,3-Trichloropropane	ND		0.00250	1	08/26/2021 01:07	WG1729523
1,2,4-Trimethylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,2,3-Trimethylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
1,3,5-Trimethylbenzene	ND		0.00100	1	08/26/2021 01:07	WG1729523
Vinyl chloride	ND		0.00100	1	08/26/2021 01:07	WG1729523
Xylenes, Total	ND		0.00300	1	08/26/2021 01:07	WG1729523
(S) Toluene-d8	*106*		*80.0-120*		*08/26/2021 01:07*	WG1729523
(S) 4-Bromofluorobenzene	*97.2*		*77.0-126*		*08/26/2021 01:07*	WG1729523
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*08/26/2021 01:07*	WG1729523

Method Blank (MB)

(MB) R3696250-1 08/25/21 12:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3696250-2 08/25/21 12:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00265	88.3	80.0-120	

L1393343-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393343-01 08/25/21 12:09 • (MS) R3696250-3 08/25/21 12:16 • (MSD) R3696250-4 08/25/21 12:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	ND	0.00301	0.00304	100	101	1	75.0-125			0.992	20

Method Blank (MB)

(MB) R3697295-1 08/26/21 18:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00440	0.0100
Barium	U		0.000736	0.00500
Cadmium	U		0.000479	0.00200
Chromium	U		0.00140	0.0100
Lead	U		0.00299	0.00600
Selenium	U		0.00735	0.0100
Silver	U		0.00154	0.00500

Laboratory Control Sample (LCS)

(LCS) R3697295-2 08/26/21 18:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	1.00	0.904	90.4	80.0-120	
Barium	1.00	0.973	97.3	80.0-120	
Cadmium	1.00	0.923	92.3	80.0-120	
Chromium	1.00	0.942	94.2	80.0-120	
Lead	1.00	0.931	93.1	80.0-120	
Selenium	1.00	0.926	92.6	80.0-120	
Silver	0.200	0.171	85.7	80.0-120	

L1393421-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393421-02 08/26/21 18:39 • (MS) R3697295-4 08/26/21 18:45 • (MSD) R3697295-5 08/26/21 18:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	ND	0.940	0.947	94.0	94.7	1	75.0-125			0.807	20
Barium	1.00	0.0934	1.05	1.06	96.0	96.8	1	75.0-125			0.815	20
Cadmium	1.00	0.00339	0.943	0.951	94.0	94.8	1	75.0-125			0.868	20
Chromium	1.00	ND	0.945	0.949	94.5	94.9	1	75.0-125			0.408	20
Lead	1.00	ND	0.949	0.957	94.9	95.7	1	75.0-125			0.758	20
Selenium	1.00	ND	0.971	0.980	97.1	98.0	1	75.0-125			0.916	20
Silver	0.200	ND	0.175	0.177	87.7	88.4	1	75.0-125			0.742	20

Method Blank (MB)

(MB) R3698451-2 08/25/21 10:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Gasoline Range Organics-NWTPH	0.0533	J	0.0316	0.100
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3698451-1 08/25/21 09:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5.50	5.18	94.2	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*88.3*	*78.0-120*	

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

Method Blank (MB)

(MB) R3697816-4 08/25/21 21:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
2-Chlorotoluene	U		0.000106	0.00100
4-Chlorotoluene	U		0.000114	0.00100
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
Dibromomethane	U		0.000122	0.00100
1,2-Dichlorobenzene	U		0.000107	0.00100
1,3-Dichlorobenzene	U		0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
Dichlorodifluoromethane	U		0.000374	0.00500
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
1,1-Dichloropropene	U		0.000142	0.00100
1,3-Dichloropropane	U		0.000110	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
2,2-Dichloropropane	U		0.000161	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
Isopropylbenzene	U		0.000105	0.00100

Method Blank (MB)

(MB) R3697816-4 08/25/21 21:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000481	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
Trichlorofluoromethane	U		0.000160	0.00500
1,2,3-Trichloropropane	U		0.000237	0.00250
1,2,3-Trimethylbenzene	U		0.000104	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*89.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*

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

(LCS) R3697816-1 08/25/21 20:22 • (LCSD) R3697816-2 08/25/21 20:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0282	0.0300	113	120	19.0-160			6.19	27
Acrylonitrile	0.0250	0.0298	0.0305	119	122	55.0-149			2.32	20
Benzene	0.00500	0.00512	0.00517	102	103	70.0-123			0.972	20
Bromobenzene	0.00500	0.00587	0.00567	117	113	73.0-121			3.47	20
Bromodichloromethane	0.00500	0.00533	0.00534	107	107	75.0-120			0.187	20

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

(LCS) R3697816-1 08/25/21 20:22 • (LCSD) R3697816-2 08/25/21 20:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.00500	0.00389	0.00374	77.8	74.8	68.0-132			3.93	20
Bromomethane	0.00500	0.00224	0.00260	44.8	52.0	10.0-160			14.9	25
n-Butylbenzene	0.00500	0.00442	0.00437	88.4	87.4	73.0-125			1.14	20
sec-Butylbenzene	0.00500	0.00493	0.00474	98.6	94.8	75.0-125			3.93	20
tert-Butylbenzene	0.00500	0.00510	0.00494	102	98.8	76.0-124			3.19	20
Carbon tetrachloride	0.00500	0.00484	0.00510	96.8	102	68.0-126			5.23	20
Chlorobenzene	0.00500	0.00441	0.00436	88.2	87.2	80.0-121			1.14	20
Chlorodibromomethane	0.00500	0.00440	0.00436	88.0	87.2	77.0-125			0.913	20
Chloroethane	0.00500	0.00554	0.00537	111	107	47.0-150			3.12	20
Chloroform	0.00500	0.00528	0.00539	106	108	73.0-120			2.06	20
Chloromethane	0.00500	0.00586	0.00590	117	118	41.0-142			0.680	20
2-Chlorotoluene	0.00500	0.00527	0.00517	105	103	76.0-123			1.92	20
4-Chlorotoluene	0.00500	0.00541	0.00547	108	109	75.0-122			1.10	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00398	0.00391	79.6	78.2	58.0-134			1.77	20
1,2-Dibromoethane	0.00500	0.00437	0.00430	87.4	86.0	80.0-122			1.61	20
Dibromomethane	0.00500	0.00509	0.00492	102	98.4	80.0-120			3.40	20
1,2-Dichlorobenzene	0.00500	0.00476	0.00482	95.2	96.4	79.0-121			1.25	20
1,3-Dichlorobenzene	0.00500	0.00496	0.00490	99.2	98.0	79.0-120			1.22	20
1,4-Dichlorobenzene	0.00500	0.00460	0.00454	92.0	90.8	79.0-120			1.31	20
Dichlorodifluoromethane	0.00500	0.00488	0.00481	97.6	96.2	51.0-149			1.44	20
1,1-Dichloroethane	0.00500	0.00557	0.00570	111	114	70.0-126			2.31	20
1,2-Dichloroethane	0.00500	0.00518	0.00519	104	104	70.0-128			0.193	20
1,1-Dichloroethene	0.00500	0.00454	0.00454	90.8	90.8	71.0-124			0.000	20
cis-1,2-Dichloroethene	0.00500	0.00484	0.00490	96.8	98.0	73.0-120			1.23	20
trans-1,2-Dichloroethene	0.00500	0.00468	0.00471	93.6	94.2	73.0-120			0.639	20
1,2-Dichloropropane	0.00500	0.00563	0.00586	113	117	77.0-125			4.00	20
1,1-Dichloropropene	0.00500	0.00518	0.00523	104	105	74.0-126			0.961	20
1,3-Dichloropropane	0.00500	0.00499	0.00491	99.8	98.2	80.0-120			1.62	20
cis-1,3-Dichloropropene	0.00500	0.00515	0.00523	103	105	80.0-123			1.54	20
trans-1,3-Dichloropropene	0.00500	0.00463	0.00459	92.6	91.8	78.0-124			0.868	20
2,2-Dichloropropane	0.00500	0.00530	0.00546	106	109	58.0-130			2.97	20
Di-isopropyl ether	0.00500	0.00651	0.00644	130	129	58.0-138			1.08	20
Ethylbenzene	0.00500	0.00436	0.00431	87.2	86.2	79.0-123			1.15	20
Hexachloro-1,3-butadiene	0.00500	0.00367	0.00374	73.4	74.8	54.0-138			1.89	20
Isopropylbenzene	0.00500	0.00417	0.00421	83.4	84.2	76.0-127			0.955	20
p-Isopropyltoluene	0.00500	0.00454	0.00447	90.8	89.4	76.0-125			1.55	20
2-Butanone (MEK)	0.0250	0.0316	0.0328	126	131	44.0-160			3.73	20
Methylene Chloride	0.00500	0.00476	0.00462	95.2	92.4	67.0-120			2.99	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0308	0.0309	123	124	68.0-142			0.324	20
Methyl tert-butyl ether	0.00500	0.00500	0.00512	100	102	68.0-125			2.37	20

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

(LCS) R3697816-1 08/25/21 20:22 • (LCSD) R3697816-2 08/25/21 20:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.00500	0.00318	0.00312	63.6	62.4	54.0-135			1.90	20
n-Propylbenzene	0.00500	0.00525	0.00513	105	103	77.0-124			2.31	20
Styrene	0.00500	0.00419	0.00412	83.8	82.4	73.0-130			1.68	20
1,1,1,2-Tetrachloroethane	0.00500	0.00444	0.00440	88.8	88.0	75.0-125			0.905	20
1,1,2,2-Tetrachloroethane	0.00500	0.00598	0.00569	120	114	65.0-130			4.97	20
Tetrachloroethene	0.00500	0.00425	0.00409	85.0	81.8	72.0-132			3.84	20
Toluene	0.00500	0.00465	0.00459	93.0	91.8	79.0-120			1.30	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00428	0.00427	85.6	85.4	69.0-132			0.234	20
1,2,3-Trichlorobenzene	0.00500	0.00374	0.00362	74.8	72.4	50.0-138			3.26	20
1,2,4-Trichlorobenzene	0.00500	0.00358	0.00360	71.6	72.0	57.0-137			0.557	20
1,1,1-Trichloroethane	0.00500	0.00512	0.00512	102	102	73.0-124			0.000	20
1,1,2-Trichloroethane	0.00500	0.00440	0.00434	88.0	86.8	80.0-120			1.37	20
Trichloroethene	0.00500	0.00463	0.00450	92.6	90.0	78.0-124			2.85	20
Trichlorofluoromethane	0.00500	0.00446	0.00457	89.2	91.4	59.0-147			2.44	20
1,2,3-Trichloropropane	0.00500	0.00545	0.00571	109	114	73.0-130			4.66	20
1,2,3-Trimethylbenzene	0.00500	0.00521	0.00511	104	102	77.0-120			1.94	20
1,2,4-Trimethylbenzene	0.00500	0.00530	0.00515	106	103	76.0-121			2.87	20
1,3,5-Trimethylbenzene	0.00500	0.00520	0.00521	104	104	76.0-122			0.192	20
Vinyl chloride	0.00500	0.00534	0.00521	107	104	67.0-131			2.46	20
Xylenes, Total	0.0150	0.0131	0.0131	87.3	87.3	79.0-123			0.000	20
(S) Toluene-d8				*100*	*98.6*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.2*	*94.4*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*117*	*118*	*70.0-130*				

L1393238-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393238-14 08/26/21 02:53 • (MS) R3697816-5 08/26/21 05:03 • (MSD) R3697816-6 08/26/21 05:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	ND	ND	ND	128	108	1	10.0-160			16.3	35
Acrylonitrile	0.0250	ND	0.0352	0.0282	141	113	1	21.0-160			22.1	32
Benzene	0.00500	ND	0.00394	0.00205	78.8	41.0	1	17.0-158		J3	63.1	27
Bromobenzene	0.00500	ND	0.00525	0.00313	105	62.6	1	30.0-149		J3	50.6	28
Bromodichloromethane	0.00500	ND	0.00474	0.00298	94.8	59.6	1	31.0-150		J3	45.6	27
Bromoform	0.00500	ND	0.00404	0.00290	80.8	58.0	1	29.0-150		J3	32.9	29
Bromomethane	0.00500	ND	ND	ND	37.6	17.4	1	10.0-160		J3	73.5	38
n-Butylbenzene	0.00500	ND	0.00369	0.00186	73.8	37.2	1	31.0-150		J3	65.9	30
sec-Butylbenzene	0.00500	ND	0.00388	0.00171	77.6	34.2	1	33.0-155		J3	77.6	29
tert-Butylbenzene	0.00500	ND	0.00397	0.00197	79.4	39.4	1	34.0-153		J3	67.3	28

L1393238-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393238-14 08/26/21 02:53 • (MS) R3697816-5 08/26/21 05:03 • (MSD) R3697816-6 08/26/21 05:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.00500	ND	0.00360	0.00165	72.0	33.0	1	23.0-159		J3	74.3	28
Chlorobenzene	0.00500	ND	0.00362	0.00209	72.4	41.8	1	33.0-152		J3	53.6	27
Chlorodibromomethane	0.00500	ND	0.00435	0.00281	87.0	56.2	1	37.0-149		J3	43.0	27
Chloroethane	0.00500	ND	ND	ND	87.4	0.000	1	10.0-160		J3 J6	200	30
Chloroform	0.00500	ND	ND	ND	86.4	46.4	1	29.0-154		J3	60.2	28
Chloromethane	0.00500	ND	0.00433	ND	86.6	31.8	1	10.0-160		J3	92.6	29
2-Chlorotoluene	0.00500	ND	0.00424	0.00245	84.8	49.0	1	32.0-153		J3	53.5	28
4-Chlorotoluene	0.00500	ND	0.00449	0.00255	89.8	51.0	1	32.0-150		J3	55.1	28
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	95.4	75.4	1	22.0-151			23.4	34
1,2-Dibromoethane	0.00500	ND	0.00431	0.00299	86.2	59.8	1	34.0-147		J3	36.2	27
Dibromomethane	0.00500	ND	0.00487	0.00305	97.4	61.0	1	30.0-151		J3	46.0	27
1,2-Dichlorobenzene	0.00500	ND	0.00455	0.00275	91.0	55.0	1	34.0-149		J3	49.3	28
1,3-Dichlorobenzene	0.00500	ND	0.00434	0.00256	86.8	51.2	1	36.0-146		J3	51.6	27
1,4-Dichlorobenzene	0.00500	ND	0.00420	0.00248	84.0	49.6	1	35.0-142		J3	51.5	27
Dichlorodifluoromethane	0.00500	ND	ND	ND	71.6	18.9	1	10.0-160		J3	117	29
1,1-Dichloroethane	0.00500	ND	0.00439	0.00217	87.8	43.4	1	25.0-158		J3	67.7	27
1,2-Dichloroethane	0.00500	ND	0.00491	0.00308	98.2	61.6	1	29.0-151		J3	45.8	27
1,1-Dichloroethene	0.00500	ND	0.00309	0.00125	61.8	25.0	1	11.0-160		J3	84.8	29
cis-1,2-Dichloroethene	0.00500	ND	0.00458	0.00278	77.5	41.5	1	10.0-160		J3	48.9	27
trans-1,2-Dichloroethene	0.00500	ND	0.00332	0.00160	66.4	32.0	1	17.0-153		J3	69.9	27
1,2-Dichloropropane	0.00500	ND	0.00489	0.00275	97.8	55.0	1	30.0-156		J3	56.0	27
1,1-Dichloropropene	0.00500	ND	0.00346	0.00165	69.2	33.0	1	25.0-158		J3	70.8	27
1,3-Dichloropropane	0.00500	ND	0.00495	0.00317	99.0	63.4	1	38.0-147		J3	43.8	27
cis-1,3-Dichloropropene	0.00500	ND	0.00404	0.00251	80.8	50.2	1	34.0-149		J3	46.7	28
trans-1,3-Dichloropropene	0.00500	ND	0.00433	0.00276	86.6	55.2	1	32.0-149		J3	44.3	28
2,2-Dichloropropane	0.00500	ND	0.00336	0.00163	67.2	32.6	1	24.0-152		J3	69.3	29
Di-isopropyl ether	0.00500	ND	0.00612	0.00357	122	71.4	1	21.0-160		J3	52.6	28
Ethylbenzene	0.00500	ND	0.00329	0.00172	65.8	34.4	1	30.0-155		J3	62.7	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00321	0.00138	64.2	27.6	1	20.0-154		J3	79.7	34
Isopropylbenzene	0.00500	ND	0.00307	0.00153	61.4	30.6	1	28.0-157		J3	67.0	27
p-Isopropyltoluene	0.00500	ND	0.00360	0.00163	72.0	32.6	1	30.0-154		J3	75.3	29
2-Butanone (MEK)	0.0250	ND	0.0377	0.0317	151	127	1	10.0-160			17.3	32
Methylene Chloride	0.00500	ND	ND	ND	79.2	42.8	1	23.0-144		J3	59.7	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0361	0.0280	144	112	1	29.0-160			25.3	29
Methyl tert-butyl ether	0.00500	ND	0.00514	0.00336	103	67.2	1	28.0-150		J3	41.9	29
Naphthalene	0.00500	ND	ND	ND	71.8	48.4	1	12.0-156		J3	38.9	35
n-Propylbenzene	0.00500	ND	0.00406	0.00206	81.2	41.2	1	31.0-154		J3	65.4	28
Styrene	0.00500	ND	0.00335	0.00183	67.0	36.6	1	33.0-155		J3	58.7	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00394	0.00236	78.8	47.2	1	36.0-151		J3	50.2	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00704	0.00511	141	102	1	33.0-150		J3	31.8	28

L1393238-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1393238-14 08/26/21 02:53 • (MS) R3697816-5 08/26/21 05:03 • (MSD) R3697816-6 08/26/21 05:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.00500	ND	0.00299	0.00153	59.8	30.6	1	10.0-160		J3	64.6	27
Toluene	0.00500	ND	0.00348	0.00190	69.6	38.0	1	26.0-154		J3	58.7	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00324	0.00145	64.8	29.0	1	23.0-160		J3	76.3	30
1,2,3-Trichlorobenzene	0.00500	ND	0.00392	0.00229	78.4	45.8	1	17.0-150		J3	52.5	36
1,2,4-Trichlorobenzene	0.00500	ND	0.00366	0.00175	73.2	35.0	1	24.0-150		J3	70.6	33
1,1,1-Trichloroethane	0.00500	ND	0.00373	0.00182	74.6	36.4	1	23.0-160		J3	68.8	28
1,1,2-Trichloroethane	0.00500	ND	0.00455	0.00303	91.0	60.6	1	35.0-147		J3	40.1	27
Trichloroethene	0.00500	ND	0.00325	0.00162	65.0	32.4	1	10.0-160		J3	66.9	25
Trichlorofluoromethane	0.00500	ND	ND	ND	63.4	23.6	1	17.0-160		J3	91.5	31
1,2,3-Trichloropropane	0.00500	ND	0.00652	0.00470	130	94.0	1	34.0-151		J3	32.4	29
1,2,3-Trimethylbenzene	0.00500	ND	0.00455	0.00255	91.0	51.0	1	32.0-149		J3	56.3	28
1,2,4-Trimethylbenzene	0.00500	ND	0.00435	0.00227	87.0	45.4	1	26.0-154		J3	62.8	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00414	0.00211	82.8	42.2	1	28.0-153		J3	65.0	27
Vinyl chloride	0.00500	ND	0.00346	0.00121	69.2	24.2	1	10.0-160		J3	96.4	27
Xylenes, Total	0.0150	ND	0.0101	0.00544	67.3	36.3	1	29.0-154		J3	60.0	28
(S) Toluene-d8					*99.2*	*98.7*		*80.0-120*				
(S) 4-Bromofluorobenzene					*93.0*	*90.9*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*115*	*113*		*70.0-130*				

Method Blank (MB)

(MB) R3697367-2 08/25/21 21:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
2-Chlorotoluene	U		0.000106	0.00100
4-Chlorotoluene	U		0.000114	0.00100
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
Dibromomethane	U		0.000122	0.00100
1,2-Dichlorobenzene	U		0.000107	0.00100
1,3-Dichlorobenzene	U		0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
Dichlorodifluoromethane	U		0.000374	0.00500
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
1,1-Dichloropropene	U		0.000142	0.00100
1,3-Dichloropropane	U		0.000110	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
2,2-Dichloropropane	U		0.000161	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
Isopropylbenzene	U		0.000105	0.00100

Method Blank (MB)

(MB) R3697367-2 08/25/21 21:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000481	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
Trichlorofluoromethane	U		0.000160	0.00500
1,2,3-Trichloropropane	U		0.000237	0.00250
1,2,3-Trimethylbenzene	U		0.000104	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*91.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3697367-1 08/25/21 19:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0230	92.0	19.0-160	
Acrylonitrile	0.0250	0.0191	76.4	55.0-149	
Benzene	0.00500	0.00489	97.8	70.0-123	
Bromobenzene	0.00500	0.00478	95.6	73.0-121	
Bromodichloromethane	0.00500	0.00448	89.6	75.0-120	

Laboratory Control Sample (LCS)

(LCS) R3697367-1 08/25/21 19:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.00500	0.00411	82.2	68.0-132	
Bromomethane	0.00500	0.00313	62.6	10.0-160	
n-Butylbenzene	0.00500	0.00496	99.2	73.0-125	
sec-Butylbenzene	0.00500	0.00469	93.8	75.0-125	
tert-Butylbenzene	0.00500	0.00430	86.0	76.0-124	
Carbon tetrachloride	0.00500	0.00494	98.8	68.0-126	
Chlorobenzene	0.00500	0.00458	91.6	80.0-121	
Chlorodibromomethane	0.00500	0.00443	88.6	77.0-125	
Chloroethane	0.00500	0.00620	124	47.0-150	
Chloroform	0.00500	0.00500	100	73.0-120	
Chloromethane	0.00500	0.00410	82.0	41.0-142	
2-Chlorotoluene	0.00500	0.00466	93.2	76.0-123	
4-Chlorotoluene	0.00500	0.00440	88.0	75.0-122	
1,2-Dibromo-3-Chloropropane	0.00500	0.00466	93.2	58.0-134	
1,2-Dibromoethane	0.00500	0.00470	94.0	80.0-122	
Dibromomethane	0.00500	0.00475	95.0	80.0-120	
1,2-Dichlorobenzene	0.00500	0.00504	101	79.0-121	
1,3-Dichlorobenzene	0.00500	0.00455	91.0	79.0-120	
1,4-Dichlorobenzene	0.00500	0.00471	94.2	79.0-120	
Dichlorodifluoromethane	0.00500	0.00497	99.4	51.0-149	
1,1-Dichloroethane	0.00500	0.00518	104	70.0-126	
1,2-Dichloroethane	0.00500	0.00502	100	70.0-128	
1,1-Dichloroethene	0.00500	0.00453	90.6	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00487	97.4	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00477	95.4	73.0-120	
1,2-Dichloropropane	0.00500	0.00481	96.2	77.0-125	
1,1-Dichloropropene	0.00500	0.00491	98.2	74.0-126	
1,3-Dichloropropane	0.00500	0.00479	95.8	80.0-120	
cis-1,3-Dichloropropene	0.00500	0.00509	102	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00409	81.8	78.0-124	
2,2-Dichloropropane	0.00500	0.00428	85.6	58.0-130	
Di-isopropyl ether	0.00500	0.00461	92.2	58.0-138	
Ethylbenzene	0.00500	0.00439	87.8	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00463	92.6	54.0-138	
Isopropylbenzene	0.00500	0.00436	87.2	76.0-127	
p-Isopropyltoluene	0.00500	0.00447	89.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0186	74.4	44.0-160	
Methylene Chloride	0.00500	0.00563	113	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0215	86.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00501	100	68.0-125	

Laboratory Control Sample (LCS)

(LCS) R3697367-1 08/25/21 19:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.00500	0.00597	119	54.0-135	
n-Propylbenzene	0.00500	0.00476	95.2	77.0-124	
Styrene	0.00500	0.00420	84.0	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00427	85.4	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00460	92.0	65.0-130	
Tetrachloroethene	0.00500	0.00431	86.2	72.0-132	
Toluene	0.00500	0.00437	87.4	79.0-120	
1,1,2-Trichlorotrifluoroethane	0.00500	0.00509	102	69.0-132	
1,2,3-Trichlorobenzene	0.00500	0.00546	109	50.0-138	
1,2,4-Trichlorobenzene	0.00500	0.00539	108	57.0-137	
1,1,1-Trichloroethane	0.00500	0.00468	93.6	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00411	82.2	80.0-120	
Trichloroethene	0.00500	0.00504	101	78.0-124	
Trichlorofluoromethane	0.00500	0.00584	117	59.0-147	
1,2,3-Trichloropropane	0.00500	0.00445	89.0	73.0-130	
1,2,3-Trimethylbenzene	0.00500	0.00480	96.0	77.0-120	
1,2,4-Trimethylbenzene	0.00500	0.00444	88.8	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00460	92.0	76.0-122	
Vinyl chloride	0.00500	0.00498	99.6	67.0-131	
Xylenes, Total	0.0150	0.0132	88.0	79.0-123	
(S) Toluene-d8			*99.2*	*80.0-120*	
(S) 4-Bromofluorobenzene			*88.3*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3698602-1 08/31/21 09:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Diesel Range Organics (DRO)	U		0.0667	0.200
Residual Range Organics (RRO)	U		0.0833	0.250
(S) o-Terphenyl	*62.0*			*52.0-156*

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

(LCS) R3698602-2 08/31/21 10:13 • (LCSD) R3698602-3 08/31/21 10:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1.50	1.64	1.63	109	109	50.0-150			0.612	20
(S) o-Terphenyl				*90.0*	*89.0*	*52.0-156*				

Method Blank (MB)

(MB) R3698576-1 08/31/21 09:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Diesel Range Organics (DRO)	U		0.0667	0.200
Residual Range Organics (RRO)	U		0.0833	0.250
(S) o-Terphenyl	*103*			*52.0-156*

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

(LCS) R3698576-2 08/31/21 09:44 • (LCSD) R3698576-3 08/31/21 10:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1.50	0.969	1.32	64.6	88.0	50.0-150		J3	30.7	20
(S) o-Terphenyl				*82.5*	*106*	*52.0-156*				

Method Blank (MB)

(MB) R3699011-1 09/01/21 09:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Diesel Range Organics (DRO)	U		0.0667	0.200
Residual Range Organics (RRO)	U		0.0833	0.250
(S) o-Terphenyl	*102*			*52.0-156*

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

(LCS) R3699011-2 09/01/21 10:06 • (LCSD) R3699011-3 09/01/21 10:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1.50	1.81	1.72	121	115	50.0-150			5.10	20
(S) o-Terphenyl				*146*	*133*	*52.0-156*				

Method Blank (MB)

(MB) R3699294-1 09/01/21 15:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
PCB 1260	U		0.000173	0.000500
PCB 1016	U		0.000270	0.000500
PCB 1221	U		0.000270	0.000500
PCB 1232	U		0.000270	0.000500
PCB 1242	0.00115		0.000270	0.000500
PCB 1248	U		0.000173	0.000500
PCB 1254	U		0.000173	0.000500
(S) Decachlorobiphenyl	*94.1*			*10.0-128*
(S) Tetrachloro-m-xylene	*104*			*10.0-127*

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

(LCS) R3699294-2 09/01/21 15:43 • (LCSD) R3699294-3 09/01/21 15:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.00250	0.00251	0.00214	100	85.6	42.0-131			15.9	25
PCB 1016	0.00250	0.0140	0.00426	560	170	36.0-135	J4 P	J3 J4	107	29
(S) Decachlorobiphenyl				*81.4*	*90.0*	*10.0-128*				
(S) Tetrachloro-m-xylene				*95.5*	*99.6*	*10.0-127*				

Method Blank (MB)

(MB) R3696502-3 08/25/21 16:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Anthracene	U		0.0000804	0.00100
Benzidine	U		0.00374	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.00100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.00100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
Naphthalene	U		0.000159	0.00100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodimethylamine	U		0.000998	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300

Method Blank (MB)

(MB) R3696502-3 08/25/21 16:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) Nitrobenzene-d5	*58.7*			*10.0-127*
(S) 2-Fluorobiphenyl	*70.6*			*10.0-130*
(S) p-Terphenyl-d14	*65.8*			*10.0-128*
(S) Phenol-d5	*19.3*			*10.0-120*
(S) 2-Fluorophenol	*30.1*			*10.0-120*
(S) 2,4,6-Tribromophenol	*56.5*			*10.0-155*

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

(LCS) R3696502-1 08/25/21 15:36 • (LCSD) R3696502-2 08/25/21 15:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	0.0296	0.0333	59.2	66.6	41.0-120			11.8	22
Acenaphthylene	0.0500	0.0316	0.0364	63.2	72.8	43.0-120			14.1	22
Anthracene	0.0500	0.0343	0.0357	68.6	71.4	45.0-120			4.00	20
Benzidine	0.100	0.00500	0.0334	5.00	33.4	10.0-120	J4	J3	148	36
Benzo(a)anthracene	0.0500	0.0362	0.0368	72.4	73.6	47.0-120			1.64	20
Benzo(b)fluoranthene	0.0500	0.0357	0.0362	71.4	72.4	46.0-120			1.39	20
Benzo(k)fluoranthene	0.0500	0.0367	0.0371	73.4	74.2	46.0-120			1.08	21
Benzo(g,h,i)perylene	0.0500	0.0370	0.0372	74.0	74.4	48.0-121			0.539	20
Benzo(a)pyrene	0.0500	0.0330	0.0336	66.0	67.2	47.0-120			1.80	20
Bis(2-chlorethoxy)methane	0.0500	0.0246	0.0287	49.2	57.4	33.0-120			15.4	24
Bis(2-chloroethyl)ether	0.0500	0.0254	0.0253	50.8	50.6	23.0-120			0.394	33
2,2-Oxybis(1-Chloropropane)	0.0500	0.0236	0.0286	47.2	57.2	28.0-120			19.2	31
4-Bromophenyl-phenylether	0.0500	0.0366	0.0386	73.2	77.2	45.0-120			5.32	20
2-Chloronaphthalene	0.0500	0.0279	0.0329	55.8	65.8	37.0-120			16.4	25

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

(LCS) R3696502-1 08/25/21 15:36 • (LCSD) R3696502-2 08/25/21 15:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Chlorophenyl-phenylether	0.0500	0.0346	0.0373	69.2	74.6	44.0-120			7.51	20
Chrysene	0.0500	0.0367	0.0374	73.4	74.8	48.0-120			1.89	20
Dibenz(a,h)anthracene	0.0500	0.0373	0.0386	74.6	77.2	47.0-120			3.43	20
3,3-Dichlorobenzidine	0.100	0.0525	0.0627	52.5	62.7	44.0-120			17.7	20
2,4-Dinitrotoluene	0.0500	0.0373	0.0393	74.6	78.6	49.0-124			5.22	20
2,6-Dinitrotoluene	0.0500	0.0346	0.0364	69.2	72.8	46.0-120			5.07	21
Fluoranthene	0.0500	0.0382	0.0399	76.4	79.8	51.0-120			4.35	20
Fluorene	0.0500	0.0338	0.0360	67.6	72.0	47.0-120			6.30	20
Hexachlorobenzene	0.0500	0.0362	0.0384	72.4	76.8	44.0-120			5.90	20
Hexachloro-1,3-butadiene	0.0500	0.0214	0.0278	42.8	55.6	19.0-120			26.0	32
Hexachlorocyclopentadiene	0.0500	0.0134	0.0172	26.8	34.4	15.0-120			24.8	31
Hexachloroethane	0.0500	0.0190	0.0260	38.0	52.0	15.0-120			31.1	37
Indeno(1,2,3-cd)pyrene	0.0500	0.0375	0.0372	75.0	74.4	49.0-122			0.803	20
Isophorone	0.0500	0.0234	0.0278	46.8	55.6	36.0-120			17.2	23
Naphthalene	0.0500	0.0228	0.0278	45.6	55.6	27.0-120			19.8	27
Nitrobenzene	0.0500	0.0223	0.0267	44.6	53.4	27.0-120			18.0	29
n-Nitrosodimethylamine	0.0500	0.0151	0.0171	30.2	34.2	10.0-120			12.4	40
n-Nitrosodiphenylamine	0.0500	0.0257	0.0303	51.4	60.6	47.0-120			16.4	20
n-Nitrosodi-n-propylamine	0.0500	0.0204	0.0255	40.8	51.0	31.0-120			22.2	28
Phenanthrene	0.0500	0.0347	0.0357	69.4	71.4	46.0-120			2.84	20
Benzylbutyl phthalate	0.0500	0.0344	0.0359	68.8	71.8	43.0-121			4.27	20
Bis(2-ethylhexyl)phthalate	0.0500	0.0341	0.0352	68.2	70.4	43.0-122			3.17	20
Di-n-butyl phthalate	0.0500	0.0378	0.0392	75.6	78.4	49.0-121			3.64	20
Diethyl phthalate	0.0500	0.0353	0.0360	70.6	72.0	48.0-122			1.96	20
Dimethyl phthalate	0.0500	0.0361	0.0383	72.2	76.6	48.0-120			5.91	20
Di-n-octyl phthalate	0.0500	0.0315	0.0332	63.0	66.4	42.0-125			5.26	20
Pyrene	0.0500	0.0367	0.0378	73.4	75.6	47.0-120			2.95	20
1,2,4-Trichlorobenzene	0.0500	0.0220	0.0274	44.0	54.8	24.0-120			21.9	29
4-Chloro-3-methylphenol	0.0500	0.0216	0.0262	43.2	52.4	40.0-120			19.2	21
2-Chlorophenol	0.0500	0.0170	0.0230	34.0	46.0	25.0-120			30.0	35
2,4-Dichlorophenol	0.0500	0.0218	0.0283	43.6	56.6	36.0-120			25.9	26
2,4-Dimethylphenol	0.0500	0.0187	0.0244	37.4	48.8	33.0-120		J3	26.5	26
4,6-Dinitro-2-methylphenol	0.0500	0.0364	0.0408	72.8	81.6	38.0-138			11.4	25
2,4-Dinitrophenol	0.0500	0.0308	0.0367	61.6	73.4	10.0-120			17.5	39
2-Nitrophenol	0.0500	0.0214	0.0281	42.8	56.2	31.0-120			27.1	29
4-Nitrophenol	0.0500	0.0120	0.0131	24.0	26.2	10.0-120			8.76	33
Pentachlorophenol	0.0500	0.0374	0.0417	74.8	83.4	23.0-120			10.9	25
Phenol	0.0500	0.00936	0.0108	18.7	21.6	10.0-120			14.3	36
2,4,6-Trichlorophenol	0.0500	0.0295	0.0364	59.0	72.8	42.0-120			20.9	23
(S) Nitrobenzene-d5				*34.3*	*42.7*	*10.0-127*				

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

(LCS) R3696502-1 08/25/21 15:36 • (LCSD) R3696502-2 08/25/21 15:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) 2-Fluorobiphenyl				*56.6*	*65.8*	*10.0-130*				
(S) p-Terphenyl-d14				*62.4*	*63.8*	*10.0-128*				
(S) Phenol-d5				*17.1*	*20.1*	*10.0-120*				
(S) 2-Fluorophenol				*22.8*	*29.0*	*10.0-120*				
(S) 2,4,6-Tribromophenol				*67.0*	*73.5*	*10.0-155*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P	RPD between the primary and confirmatory analysis exceeded 40%.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
Cardno - Peachtree Corners, GA

6611 Bay Circle
Suite 220
Peachtree Corners. GA 30071

Billing Information:
Ashton Smithwick
~~Troy Young~~
6611 Bay Circle
Suite 220
Peachtree Corners, GA 30071

Report to:
William Smithwick

Email To: **william.smithwick@cardno.com**

Project Description:
Klamath Falls - Chiloquin, OR

City/State Collected: Chiloquin, OR

Please Circle: PT MT CT ET

Phone: **678-443-1199**

Client Project #
CHILOQUIN

Lab Project #
CARDNOPCGA-CHILOQUIN

Collected by (print):
A. Smithwick

Site/Facility ID #

P.O. #

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

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

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDXLVINOSGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	PCBs - 8082 100ml Amb-NoPres	RCRA Metals 250mlHDPE-HNO3	SVOCs - 8270 100ml Amb NoPres	V8260C 40mlAmb-HCl	Remarks	Sample # (lab only)
TMW-1	Grab	GW		8.18.21	1130	12	X	X	X	X	X	X		-01
TMW-2		GW			0910	13	X	X	X	X	X	X	Dissolved metals on hold	-02
TMW-3		GW			1330	12	X	X	X	X	X	X		-03
TMW-4		GW			1240	11	X	X		X	X	X		-04
TMW-5		GW			1020	13	X	X	X	X	X	X		-05
TMW-3 DUP		GW			1335	3	X	X		X	X	X	VOCs only	-06
		GW				11	X	X		X	X	X		
		GW				3						X		

Chain of Custody Page 1 of 1

Pace Analytical®

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

SDG # 139334
C230

Acctnum: **CARDNOPCGA**
Template: **T192937**
Prelogin: **P865915**
PM: **206 - Jeff Carr**
PB: IN 8-6-21
Shipped Via: **FedEX Ground**

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

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 521733073156

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR	If preservation required by Login: Date/Time
	8.18.21	1600		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
				3.6, 1, 3.5 KB 03 62	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
			Jasmine Segura	8/20/21 900	

ANALYTICAL REPORT

August 27, 2021

Cardno - Peachtree Corners, GA

Sample Delivery Group:	L1393214
Samples Received:	08/20/2021
Project Number:	CHIL0Q120
Description:	Chiloquin, OR

Report To: William Smithwick
6611 Bay Circle
Suite 220
Peachtree Corners, GA 30071

Entire Report Reviewed By:

Jeff Carr
Project Manager

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

TABLE OF CONTENTS

RP-01 L1393214-01 Waste

Collected by: A. Smithwick
Collected date/time: 08/18/21 00:00
Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1728099	1	08/24/21 15:04	08/24/21 15:04	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1729585	1	08/25/21 18:19	08/27/21 02:03	CCE	Mt. Juliet, TN

RP-02 L1393214-02 Waste

Collected by: A. Smithwick
Collected date/time: 08/18/21 00:00
Received date/time: 08/20/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1728099	1	08/24/21 15:04	08/24/21 15:04	TDW	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1729585	1	08/25/21 18:19	08/27/21 02:06	CCE	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

6010D Metals (ICP)

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1393214-01	**SDG:**	L1393214
Client Sample ID:	RP-01	**Collected Date/Time:**	08/18/21 00:00
Lab File ID:	20210827020335	**Received Date/Time:**	08/20/21 09:00
Instrument ID:	ICP12	**Preparation Date/Time:**	08/25/21 18:19
Analytical Batch:	WG1729585	**Analysis Date/Time:**	08/27/21 02:03
Dilution Factor:	1	**Prep Method:**	3015
Analytical Method:	6010D	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	50 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/l		*mg/l*	*mg/l*
Lead	7439-92-1	ND		0.0330	0.100

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	L1393214-02	**SDG:**	L1393214
Client Sample ID:	RP-02	**Collected Date/Time:**	08/18/21 00:00
Lab File ID:	20210827020616	**Received Date/Time:**	08/20/21 09:00
Instrument ID:	ICP12	**Preparation Date/Time:**	08/25/21 18:19
Analytical Batch:	WG1729585	**Analysis Date/Time:**	08/27/21 02:06
Dilution Factor:	1	**Prep Method:**	3015
Analytical Method:	6010D	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	50 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/l		*mg/l*	*mg/l*
Lead	7439-92-1	ND		0.0330	0.100

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3697192-1	**SDG:**	L1393214
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	20210827012400	**Received Date/Time:**	
Instrument ID:	ICP12	**Preparation Date/Time:**	08/25/21 18:19
Analytical Batch:	WG1729585	**Analysis Date/Time:**	08/27/21 01:24
Dilution Factor:	1	**Prep Method:**	3015
Analytical Method:	6010D	**Sample Vol Used:**	
Matrix:	Waste	**Initial Wt/Vol:**	5 mL
Total Solids (%):		**Final Wt/Vol:**	50 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/l		*mg/l*	*mg/l*
Lead	7439-92-1	U		0.0333	0.100

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3697192-2	**SDG:**	L1393214
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	20210827012625	**Received Date/Time:**	
Instrument ID:	ICP12	**Preparation Date/Time:**	08/25/21 18:19
Analytical Batch:	WG1729585	**Analysis Date/Time:**	08/27/21 01:26
Dilution Factor:	1	**Prep Method:**	3015
Analytical Method:	6010D	**Sample Vol Used:**	
Matrix:	Waste	**Initial Wt/Vol:**	5 mL
Total Solids (%):		**Final Wt/Vol:**	50 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/l		*mg/l*	*mg/l*
Lead	7439-92-1	9.77		0.0333	0.100

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3697192-4	**SDG:**	L1393214
Client Sample ID:	MS	**Collected Date/Time:**	08/16/21 11:15
Lab File ID:	20210827013429	**Received Date/Time:**	08/20/21 08:00
Instrument ID:	ICP12	**Preparation Date/Time:**	08/25/21 18:19
Analytical Batch:	WG1729585	**Analysis Date/Time:**	08/27/21 01:34
Dilution Factor:	1	**Prep Method:**	3015
Analytical Method:	6010D	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	50 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/l		*mg/l*	*mg/l*
Lead	7439-92-1	9.83		0.0333	0.100

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3697192-5	**SDG:**	L1393214
Client Sample ID:	MSD	**Collected Date/Time:**	08/16/21 11:15
Lab File ID:	20210827013654	**Received Date/Time:**	08/20/21 08:00
Instrument ID:	ICP12	**Preparation Date/Time:**	08/25/21 18:19
Analytical Batch:	WG1729585	**Analysis Date/Time:**	08/27/21 01:36
Dilution Factor:	1	**Prep Method:**	3015
Analytical Method:	6010D	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	50 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/l		*mg/l*	*mg/l*
Lead	7439-92-1	9.86		0.0333	0.100

SAMPLE RESULT SUMMARY
INORGANIC ANALYSIS DATA SHEET

Lab Sample ID:	R3697192-3	**SDG:**	L1393214
Client Sample ID:	SD	**Collected Date/Time:**	08/16/21 11:15
Lab File ID:	20210827013201	**Received Date/Time:**	08/20/21 08:00
Instrument ID:	ICP12	**Preparation Date/Time:**	08/25/21 18:19
Analytical Batch:	WG1729585	**Analysis Date/Time:**	08/27/21 01:32
Dilution Factor:	5	**Prep Method:**	3015
Analytical Method:	6010D	**Sample Vol Used:**	_____
Matrix:	Waste	**Initial Wt/Vol:**	5 mL
Total Solids (%):	_____	**Final Wt/Vol:**	50 mL

Analyte	CAS	Result	Qualifier	MDL	RDL
		mg/l		*mg/l*	*mg/l*
Lead	7439-92-1	ND		0.167	0.500

CALIBRATION VERIFICATION

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12
Concentration Units:	mg/l		

		ICV				**ICVLL**				**CCV**			
Sample ID:		ICP120826211623-2				ICP120826211633-2				ICP120827210111-2			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
LEAD	1	0.9993387	99.90	0.206000	0.0050	0.005616919	112	20.300000	0.50	0.5050739	101	0.361000

ICV Limits: 90 - 110 ICVLL Limits: 80 - 120 CCV Limits: 90 - 110 CCVLL Limits: 50 - 150

2-IN

CALIBRATION VERIFICATION

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12
Concentration Units:	mg/l		

		CCV				**CCV**				**CCV**			
Sample ID:		ICP120827210118-2				ICP120827210150-2				ICP120827210211			
Analyte	True	Found	%R	%RSD	True	Found	%R	%RSD	True	Found	%R	%RSD
LEAD	0.50	0.5042665	101	0.314000	0.50	0.50595	101	0.671000	0.50	0.5113141	102	0.572000

ICV Limits: 90 - 110 ICVLL Limits: 80 - 120 CCV Limits: 90 - 110 CCVLL Limits: 50 - 150

CALIBRATION VERIFICATION

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12
Concentration Units:	mg/l		

CCVLL

Sample ID: ICP120827210852-2

Analyte	True	Found	%R	%RSD
LEAD	0.0050	0.003182933	63.70	31.600000

ICV Limits: 90 - 110 ICVLL Limits: 80 - 120 CCV Limits: 90 - 110 CCVLL Limits: 50 - 150

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12

Sample ID:	**ICB Result**	**ICB Qual**	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**	**BLANK Result**	**BLANK Qual**
File ID:	20210826162546-2		20210827011358-2		20210827012110-2		20210827012400	
Analyte	mg/l		mg/l		mg/l		mg/l	
LEAD	0.001593365	U	0.0009517472	U	0.0009832964	U	U	

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12

Sample ID:	**CCB Result**	**CCB Qual**	**CCB Result**	**CCB Qual**
File ID:	20210827015256-2		20210827021417	
Analyte	mg/l		mg/l	
LEAD	0.0004943883	U	-0.0005048188	U

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1393214	**Analytical Method:**	6010D
Instrument ID:	ICP12	**Date:**	08/26/21 16:42
Instrument Run:	082621ICP12		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	500	502.0379	100	500	501.9921	100
ANTIMONY	0	0.02755975		0.50	0.5643993	113
ARSENIC	0	-0.03494365		0.50	0.512478	102
BARIUM	0	0.002959076		0.50	0.5423834	108
BERYLLIUM	0	-0.00007358297		0.50	0.4979079	99.60
BORON	0	-0.09021902		1	0.9626316	96.30
CADMIUM	0	0.0009786234		1	1.087652	109
CALCIUM	500	508.4613	102	500	507.7226	102
CERIUM	0	0.1681203		0	0.1955043	
CHROMIUM	0	0.0009804087		0.50	0.5208367	104
COBALT	0	-0.0004623029		0.50	0.5075576	102
COPPER	0	0.005100224		0.50	0.5784515	116
HOT WATER SOL. BORON	0	-0.09021902		0	0.9626316	
IRON	200	201.8789	101	200	203.5889	102
LANTHANUM	0	-0.005494578		0	-0.009495438	
LEAD	0	-0.03503772		1	0.9580334	95.80
LITHIUM	0	0.001406181		0	0.003878799	
MAGNESIUM	500	514.5004	103	500	517.2876	103
MANGANESE	0	0.004084937		0.50	0.5137185	103
MOLYBDENUM	0	0.000217832		0.50	0.5360155	107
NICKEL	0	-0.003223017		1	0.9933387	99.30
PHOSPHORUS	0	0.005994708		0	0.005210479	
POTASSIUM	0	-0.09904029		0	-0.04067108	
SELENIUM	0	0.02472459		0.50	0.5785699	116
SILICON	0	-0.01150722		1	1.071702	107
SILVER	0	-0.0007341132		1	1.114799	111
SODIUM	0	0.1562164		0	0.1747456	
STRONTIUM	0	0.003898679		0	0.004028935	
SULFUR	0	-0.07472075		0	-0.09834596	
THALLIUM	0	-0.01106474		0.50	0.4809626	96.20
TIN	0	-0.01255101		0.50	0.477174	95.40
TITANIUM	0	0.009308359		0.50	0.5261634	105
VANADIUM	0	-0.0007290835		0.50	0.5038603	101
ZINC	0	0.0002950366		1	0.9970569	99.70

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN

INTERFERENCE CHECK SAMPLE

SDG:	L1393214	**Analytical Method:**	6010D
Instrument ID:	ICP12	**Date:**	08/26/21 23:24
Instrument Run:	082621ICP12		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	500	551.2503	110	500	575.7381	115
ANTIMONY	0	0.03180174		0.50	0.5606752	112
ARSENIC	0	-0.01864892		0.50	0.5438317	109
BARIUM	0	0.003478609		0.50	0.5586314	112
BERYLLIUM	0	-0.00004508121		0.50	0.5439089	109
BORON	0	-0.1022247		1	1.068909	107
CADMIUM	0	0.00076298		1	1.126211	113
CALCIUM	500	535.6206	107	500	544.739	109
CERIUM	0	0.2528661		0	0.3506344	
CHROMIUM	0	0.0008172511		0.50	0.5295011	106
COBALT	0	-0.0003726358		0.50	0.5287809	106
COPPER	0	0.005507577		0.50	0.5803618	116
HOT WATER SOL. BORON	0	-0.1022247		0	1.068909	
IRON	200	218.5789	109	200	221.237	111
LANTHANUM	0	-0.005088498		0	-0.007204261	
LEAD	0	-0.03669559		1	0.9730582	97.30
LITHIUM	0	0.001343081		0	0.001781075	
MAGNESIUM	500	570.2284	114	500	578.9104	116
MANGANESE	0	0.004378487		0.50	0.5503041	110
MOLYBDENUM	0	0.001395187		0.50	0.5510551	110
NICKEL	0	-0.003192652		1	1.022575	102
PHOSPHORUS	0	0.01065495		0	0.01082105	
POTASSIUM	0	0.01223173		0	0.03494858	
SELENIUM	0	0.03445835		0.50	0.5990063	120
SILICON	0	0.0003109475		1	1.094995	109
SILVER	0	-0.0008659254		1	1.145005	115
SODIUM	0	0.2397492		0	0.262562	
STRONTIUM	0	0.004272831		0	0.004531666	
SULFUR	0	-0.0847923		0	-0.08784118	
THALLIUM	0	-0.01751272		0.50	0.495921	99.20
TIN	0	-0.01262536		0.50	0.4756486	95.10
TITANIUM	0	0.01215882		0.50	0.5784899	116
VANADIUM	0	-0.002840961		0.50	0.5473146	109
ZINC	0	0.0001905174		1	1.094725	109

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

4-IN INTERFERENCE CHECK SAMPLE

SDG:	L1393214	**Analytical Method:**	6010D
Instrument ID:	ICP12	**Date:**	08/27/21 05:04
Instrument Run:	082621ICP12		

Analyte	True	Found		True	Found	
	ICSA	*ICSA*	*ICSA*	*ICSAB*	*ICSAB*	*ICSAB*
	mg/l	*mg/l*	*% Rec.*	*mg/l*	*mg/l*	*% Rec.*
ALUMINUM	500	502.5224	101	500	503.1821	101
ANTIMONY	0	0.01808757		0.50	0.5479234	110
ARSENIC	0	-0.01754558		0.50	0.4844012	96.90
BARIUM	0	0.002872428		0.50	0.5287579	106
BERYLLIUM	0	-0.00006848697		0.50	0.4789366	95.80
BORON	0	-0.07727791		1	0.9152908	91.50
CADMIUM	0	0.001028797		1	1.050905	105
CALCIUM	500	458.3567	91.70	500	457.1739	91.40
CERIUM	0	0.05331246		0	0.08013209	
CHROMIUM	0	0.001037285		0.50	0.4979886	99.60
COBALT	0	-0.0001226026		0.50	0.4784037	95.70
COPPER	0	0.003390379		0.50	0.5581955	112
HOT WATER SOL. BORON	0	-0.07727791		0	0.9152908	
IRON	200	182.4722	91.20	200	183.1418	91.60
LANTHANUM	0	-0.008883124		0	-0.008419473	
LEAD	0	-0.02885473		1	0.8757265	87.60
LITHIUM	0	0.005254951		0	0.00377048	
MAGNESIUM	500	445.6935	89.10	500	446.0002	89.20
MANGANESE	0	0.004292363		0.50	0.508835	102
MOLYBDENUM	0	0.001307683		0.50	0.5198888	104
NICKEL	0	-0.001906144		1	0.9211901	92.10
PHOSPHORUS	0	0.01053435		0	0.0091215	
POTASSIUM	0	-0.09170468		0	-0.07259864	
SELENIUM	0	0.02223213		0.50	0.5161625	103
SILICON	0	0.0202869		1	1.094529	109
SILVER	0	0.0001814243		1	1.161678	116
SODIUM	0	0.1001602		0	0.08107117	
STRONTIUM	0	0.004067084		0	0.004128314	
SULFUR	0	-0.05367699		0	-0.07892034	
THALLIUM	0	-0.01282431		0.50	0.4551179	91
TIN	0	-0.01341143		0.50	0.430177	86
TITANIUM	0	0.006659427		0.50	0.5121024	102
VANADIUM	0	0.001032534		0.50	0.48235	96.50
ZINC	0	0.005763101		1	0.833053	83.30

ICSA Limits: 80 - 120 ICSAB Limits: 80 - 120

5A-IN

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1393214-01,02

SAMPLE NO.:
R3697192-4
R3697192-5

MS Sample / File ID:	R3697192-4 / 20210827013429	**SDG:**	L1393214
MSD Sample / File ID:	R3697192-5 / 20210827013654	**Analytical Batch:**	WG1729585
OS Sample / File ID:	L1393142-01 / 20210827012909	**Matrix:**	Waste
Instrument ID:	ICP12		
Analytical Method:	6010D		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Lead	10.0	ND	9.83	9.86	98.3	98.6	1	75.0 - 125	0.373	20

*: Value outside the established quality control limits.

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

7-IN

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1393214-01,02

SAMPLE NO.:
R3697192-2

LCS Sample / File ID:	R3697192-2 / 20210827012625	**SDG:**	L1393214
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1729585
Instrument ID:	ICP12	**Dilution Factor:**	1
Analytical Method:	6010D	**Matrix:**	Waste

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limits
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Lead	10.0	9.77		97.7		80.0 - 120		

*: Value outside the established quality control limits.

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

SD Sample / File ID:	R3697192-3 / 20210827013201	**SDG:**	L1393214
OS Sample / File ID:	L1393142-01 / 20210827012909	**Analytical Batch:**	WG1729585
Lab File ID:	20210827013201	**Dilution Factor:**	5
Instrument ID:	ICP12	**Matrix:**	Waste
Analytical Method:	6010D		

Analyte	OS Result	SD Result	RPD	RPD Limits
	mg/l	*mg/l*	*%*	*%*
Lead	ND	ND	0.000	10

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

DETECTION LIMIT SUMMARY

Lab Sample IDs: L1393214-01,02 **Analytical Method:** 6010D
Matrix: Waste **Prep Method:** 3015

Analyte	CAS	Wavelength	Mass	MDL	RDL
				mg/l	*mg/l*
Lead	7439-92-1	189.0420	220.3530	0.0330	0.10

10A-IN

INTERELEMENT CORRECTION FACTORS

SDG: L1393214 **Analytical Method:** 6010D

Instrument ID: ICP12 **Date:** 08/24/21 13:38

Analyte	Wavelength	ARSENIC	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LANTHANUM
	nm	189.0420	317.9330	267.7160	228.6160	324.7540	259.94	333.7490
ALUMINUM	308.2150							
ANTIMONY	206.8330			-0.00010364				
ARSENIC	189.0420							-0.00520043
BARIUM	233.5270						-0.00011317	
BERYLLIUM	313.0420							
CADMIUM	228.8020	-0.25019590						
CHROMIUM	267.7160							
COBALT	228.6160							
IRON	271.4410				-0.00018664			
LEAD	220.3530					-0.00003085		-0.00013179
LITHIUM	670.7840		-0.00032182					
SELENIUM	196.09			-0.00001854				
THALLIUM	190.8560				-0.00026544			

INTERELEMENT CORRECTION FACTORS

SDG: L1393214 **Analytical Method:** 6010D

Instrument ID: ICP12 **Date:** 08/24/21 13:38

Analyte	Wavelength	MANGANESE	SILICON	TIN	TITANIUM	VANADIUM
	nm	257.61	251.6110	189.9890	334.9410	292.4020
ALUMINUM	308.2150					-0.00434031
ANTIMONY	206.8330			-0.00419814		
ARSENIC	189.0420					
BARIUM	233.5270					
BERYLLIUM	313.0420					-0.02889282
CADMIUM	228.8020					
CHROMIUM	267.7160	-0.00003148				
COBALT	228.6160				-0.00101627	
IRON	271.4410					
LEAD	220.3530		-0.00008881			
LITHIUM	670.7840					
SELENIUM	196.09					
THALLIUM	190.8560	-0.00000492				

LINEAR DYNAMIC RANGE

SDG:	L1393214	**Analytical Method:**	6010D
Instrument ID:	ICP12	**Date:**	06/16/21 08:38

Analyte	LDR *ppm*
ALUMINUM	500
ANTIMONY	10
ARSENIC	50
BARIUM	50
BERYLLIUM	10
BORON	50
CADMIUM	10
CALCIUM	1000
CHROMIUM	50
COBALT	50
COPPER	50
IRON	500
LEAD	100
LITHIUM	10
MAGNESIUM	1000
MANGANESE	20
MOLYBDENUM	20
NICKEL	50
PHOSPHORUS	200
POTASSIUM	500
SELENIUM	10
SILICON	40
SILVER	10
SODIUM	1000
STRONTIUM	20
SULFUR	200
THALLIUM	10
TIN	50
TITANIUM	50
VANADIUM	20
ZINC	20

ANALYSIS LOG

SDG:	L1393214	**Analytical Method:**	6010D
Instrument ID:	ICP12	**Calibration Start Date:**	08/26/21 16:03
Analytical Run:	082621ICP12	**Calibration End Date:**	08/26/21 16:20

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
CALBLK	ICP120826211601	20210826160102	08/26/21 16:01		
CAL	STD1	20210826160349	08/26/21 16:03		
CAL	STD2	20210826160620	08/26/21 16:06		
CAL	STD3	20210826160846	08/26/21 16:08		
CAL	STD4	20210826161118	08/26/21 16:11		
CAL	STD5	20210826161357	08/26/21 16:13		
CAL	STD6	20210826161653	08/26/21 16:16		
CAL	STD7	20210826162006	08/26/21 16:20		
ICV	ICP120826211623-2	20210826162302-2	08/26/21 16:23		
ICB	ICP120826211625-2	20210826162546-2	08/26/21 16:25		
ICVLL	ICP120826211633-2	20210826163341-2	08/26/21 16:33		
ICSA	ICP120826211642-2	20210826164235-2	08/26/21 16:42		
ICSAB	ICP120826211645-2	20210826164528-2	08/26/21 16:45		
ICSA	ICP120826212324-2	20210826232404-2	08/26/21 23:24		
ICSAB	ICP120826212326-2	20210826232657-2	08/26/21 23:26		
CCV	ICP120827210111-2	20210827011107-2	08/27/21 01:11		
CCB	ICP120827210113-2	20210827011358-2	08/27/21 01:13		
CCV	ICP120827210118-2	20210827011817-2	08/27/21 01:18		
CCB	ICP120827210121-2	20210827012110-2	08/27/21 01:21		
BLANK	R3697192-1	20210827012400	08/27/21 01:24	1	WG1729585
LCS	R3697192-2	20210827012625	08/27/21 01:26	1	WG1729585
OS	L1393142-01	20210827012909	08/27/21 01:29		
L1393142-01	L1393142-01	20210827012909	08/27/21 01:29	1	WG1729585
SD	R3697192-3	20210827013201	08/27/21 01:32	5	WG1729585
MS	R3697192-4	20210827013429	08/27/21 01:34	1	WG1729585
MSD	R3697192-5	20210827013654	08/27/21 01:36	1	WG1729585
CCV	ICP120827210150-2	20210827015003-2	08/27/21 01:50		
CCB	ICP120827210152-2	20210827015256-2	08/27/21 01:52		
RP-01	L1393214-01	20210827020335	08/27/21 02:03	1	WG1729585
RP-02	L1393214-02	20210827020616	08/27/21 02:06	1	WG1729585
CCV	ICP120827210211	20210827021127	08/27/21 02:11		
CCB	ICP120827210214	20210827021417	08/27/21 02:14		
ICSA	ICP120827210504-2	20210827050442-2	08/27/21 05:04		
ICSAB	ICP120827210507-2	20210827050738-2	08/27/21 05:07		
CCVLL	ICP120827210852-2	20210827085229-2	08/27/21 08:52		

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
LEAD	0.0050	.005706251	114	0.50	.5014866	100
File ID:		20210826160349			20210826160620	

15-IN

INITIAL CALIBRATION RECOVERY

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12

Analyte	**Std Conc**	**Result**	**Rec.**	**Std Conc**	**Result**	**Rec.**
	mg/l	mg/l	%	mg/l	mg/l	%
LEAD	1	.9953524	99.50	2	2.00195	100
File ID:		20210826160846			20210826161118	

16A-IN

INITIAL CALIBRATION

SDG:	L1393214	**Calibration (begin) date/time:**	08/26/21 16:03
Instrument ID:	ICP12	**Calibration (end) date/time:**	08/26/21 16:20
Analytical Method:	6010D	**Analytical Run:**	082621ICP12

Analyte	Wavelength	Cal. Type	Weightage	Corr.	Slope	Incpt
LEAD	220.353	8	5	0.999995	814.8551	3.229964

Calibration Type

8 = Linear Regression Forced through Blank

Weightage

5 = None

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

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

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Billing Information:
Ashton Smithwick
6611 Bay Circle Ste 220
Norcross, GA 30071

Report to: A. Smithwick

Email To: William.Smithwick@cardno.com

Project Description:

City/State Collected: Chiloquin, OR

Please Circle: PT MT CT ET

Phone:

Client Project # CHILOQ120

Lab Project #

Collected by (print): A. Smithwick

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ✓ Y ___

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	Analysis / Container / Preservative: Lead TCLP	Remarks	Sample # (lab only)
RP-01	Comp			8.18.21		1	X	TCLP	-01
RP-02	1			1		1	X	TCLP	-02

Chain of Custody Page 1 of 1

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1393214

C214

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via:

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

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 5117 4436 1926

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	8.18.21	1600		DGR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 23 °C Bottles Received: 2	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/20/21 Time: 9:00	Hold: / Condition: NCF / OK

eurofins | EMLab P&K

Report for:

W. Ashton Smithwick
Cardno
6611 Bay Circle Suite 220
Norcross, GA 30071

Regarding: Project: CH860Q100
EML ID: 2718074

Approved by:

Approved Signatory
Balu Krishnan

Dates of Analysis:
Asbestos PLM: 08-27-2021

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)
NVLAP Lab Code 200738-0

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the samples as received and tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

Eurofins EMLab P&K
6301 NW 5th way, Suite#: 1410, Ft. Lauderdale, FL 33309
(866) 871-1984 Fax (954) 776-8485 www.emlab.com

Client: Cardno
C/O: W. Ashton Smithwick
Re: CH860Q100

Date of Receipt: 08-25-2021
Date of Report: 08-27-2021

ASBESTOS PLM REPORT

Total Samples Submitted:	6
Total Samples Analyzed:	6
Total Samples with Layer Asbestos Content > 1%:	2

Location: RP-01-01, Shingles Lab ID-Version‡: 13001097-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Gray pebbles	ND
Composite Non-Asbestos Content:	15% Glass Fibers
Sample Composite Homogeneity:	Good

Location: RP-01-02, Shingles Lab ID-Version‡: 13001098-1

Sample Layers	Asbestos Content
Black Roofing Shingle with Gray pebbles	ND
Composite Non-Asbestos Content:	15% Glass Fibers
Sample Composite Homogeneity:	Good

Location: RP-02-01, Drywall Lab ID-Version‡: 13001099-1

Sample Layers	Asbestos Content
White Texture with Paint	2% Chrysotile
Cream Tape	ND
White Joint Compound	2% Chrysotile
White Drywall with Brown Paper	ND
Composite Asbestos Fibrous Content:	< 1% Asbestos
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Moderate

Comments: Composite asbestos content provided is only for Drywall/Joint compound. Composite content provided for this analysis has been performed by following the NESHAP guidelines.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Eurofins EMLab P&K
6301 NW 5th way, Suite#: 1410, Ft. Lauderdale, FL 33309
(866) 871-1984 Fax (954) 776-8485 www.emlab.com

Client: Cardno
C/O: W. Ashton Smithwick
Re: CH860Q100

Date of Receipt: 08-25-2021
Date of Report: 08-27-2021

ASBESTOS PLM REPORT

Location: RP-02-02, Drywall

Lab ID-Version‡: 13001100-1

Sample Layers	Asbestos Content
Cream Tape	ND
White Joint Compound	2% Chrysotile
White Drywall with Brown Paper	ND
Composite Asbestos Fibrous Content:	< 1% Asbestos
Composite Non-Asbestos Content:	15% Cellulose
Sample Composite Homogeneity:	Moderate

Comments: Composite asbestos content provided is only for Drywall/Joint compound. Composite content provided for this analysis has been performed by following the NESHAP guidelines.

Location: RP-03-01, Gray Caulk

Lab ID-Version‡: 13001101-1

Sample Layers	Asbestos Content
Gray Caulk with Paint	ND
Sample Composite Homogeneity:	Good

Location: RP-03-02, Gray Caulk

Lab ID-Version‡: 13001102-1

Sample Layers	Asbestos Content
Gray Caulk with Paint	ND
Sample Composite Homogeneity:	Good

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

FORMER MARKWARDT
BROTHERS GARAGE

APPENDIX

E

GPR DATA INC., GROUND PENETRATING RADAR SURVEY, AUGUST 18, 2021

GPR Data Inc.
2580 Edgewater Drive
Eugene, OR 97401
(541) 345-1075
GPRDATA.com

August 18, 2021

GPR Data, Inc Project No. 2021-16333-GPR

Cardno
6611 Bay Circle, Suite 220
Norcross, Georgia 30071
229.224.0164 | william.smithwick@cardno.com

Attention: W. Ashton Smithwick

Subject: **Ground Penetrating Radar (GPR) Survey**
112 W Chocktoot St.
Chiloquin, OR 97624

Dear W. Ashton Smithwick,

GPR Data Inc. is pleased to submit this report describing our recent GPR survey at 112 W Chocktoot St. in Chiloquin, Oregon. The purpose of this survey was to locate underground storage tanks (USTs) in 2 locations at the property and locate utilities and other obstructions in 9 locations for soil boring. Our scope of services consisted of a surface reconnaissance, a sub-surface exploration, analysis, and report preparation. Authorization to proceed with our survey was given by W. Ashton Smithwick of Cardno prior to our preforming the work.

This report has been prepared in accordance with general accepted geophysical engineering practice for the exclusive use of Cardno and their agents, for specific application to this project. Use or reliance upon this report by a third party is at their own risk. GPR Data, Inc. does not make any representation or warranty, express or implied, to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown, to GPR Data, Inc.

Please see the link below for a full service disclaimer.

We appreciate the opportunity to be of service to you. If you have any questions, or if we can be of further assistance to you, please contact us at 541.345.1075.

Respectfully Submitted,

GPR Data, Inc.

GPR Data Inc.
2580 Edgewater Drive
Eugene, OR 97401
(541) 345-1075
GPRDATA.com

Project Description:
GPR Data Inc. is tasked with 2 objectives at 112 W Chocktoot St. in Chiloquin, Oregon:

Task 1: Survey 2 locations for presence of USTs.

Task 2: Locate utilities and other obstructions in 9 locations for soil boring

Site Vicinity: Page 3

Exploratory Methods:
Sean Matthews (GPRDI Operator# 6585-1446) explored surface and subsurface conditions at the project site on August 17th, 2021. The surface exploration consisted of a visual site reconnaissance.

Task 1, UST surveys: The subsurface exploration consisted of use of a 400 MHz GPR antenna connected to a SIR3000 receiving unit. Data was collected for post-processing and 3D modeling.

Task 2, clearing soil boring locations: The subsurface exploration consisted of use of a 400 MHz GPR antenna connected to a SIR3000 receiving unit, RD8000 radio-detection, and a Fisher TW-6 M-scope. Utilities and other obstructions in the area of proposed soil bores were field marked in pink paint.

The specific location of the site GPR survey was directed by W. Ashton Smithwick. The depth of survey was determined by local subsurface conditions, in this case, to a depth of 8'.

3D Modeling & Processing:
A logarithmic processing code was written based upon local subsurface conditions and concrete conductivity properties. This processing code was designed to filter and clean the GPMR data to produce the clearest images possible depicting the concrete characteristics, voiding, and subsurface conditions. Post processed data sets were then built into a three dimensional model of X, Y, & Z amplitude slices. Each slice was then analyzed and reported.

Detailed Findings:

- A UST was discovered in the 3D processed data. The UST is approximately 6'x3' cigar shaped.
- A vent line was located running from the UST at a 45 degree angle to the wall. And a possible product line associated with the tank. See page 4.
- No other tanks were discovered in any additional GPR data collected.

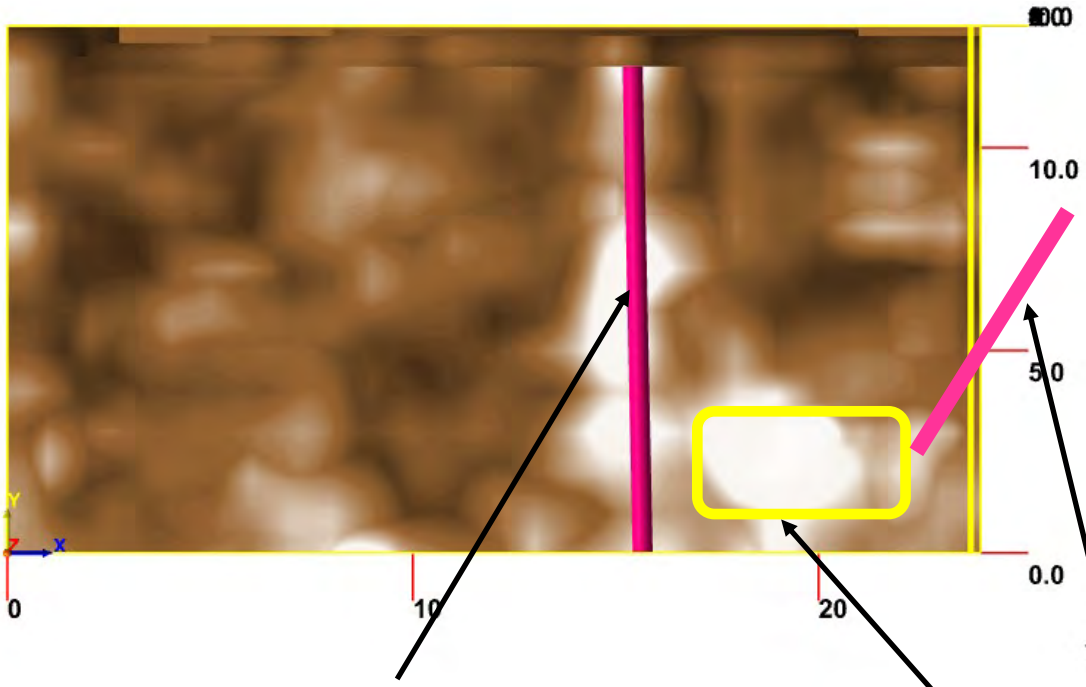
GPR Data Inc.
2580 Edgewater Drive
Eugene, OR 97401
(541) 345-1075
GPRDATA.com

Site Vicinity - 42.576110° -121.862247°

N

GPR Data Inc.
2580 Edgewater Drive
Eugene, OR 97401
(541) 345-1075
GPRDATA.com

UST Survey—Location 1 3D GPR Rendering



Please Respect the Environment

About Cardno

Cardno is an ASX-200 professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage, and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

Cardno Zero Harm

Cardno ZERO HARM EVERY JOB. EVERY DAY.

At Cardno, our primary concern is to develop and maintain safe and healthy conditions for anyone involved at our project worksites. We require full compliance with our Health and Safety Policy Manual and established work procedures and expect the same protocol from our subcontractors. We are committed to achieving our Zero Harm goal by continually improving our safety systems, education, and vigilance at the workplace and in the field. Safety is a Cardno core value and through strong leadership and active employee participation, we seek to implement and reinforce these leading actions on every job, every day.

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