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DRAFT
Supplemental Investigation
Report
Midas Muffler Fauntleroy
Site
Seattle, Washington

26 June 2018

Prepared for
Washington State
Department of Ecology
3190 160th Avenue SE
Bellevue, Washington 98008

K/J Project No. 1696059.00

Supplemental Investigation Report

Report Version: Draft

Site Name: Midas Muffler Fauntleroy

Site Address: 4457 Fauntleroy Way SW
Seattle, WA 98126

Tax Parcel No: 766620-3625

Ecology Facility Site ID No.: 72998672

Cleanup Site ID: 10302

Voluntary Cleanup Program Project No.: Not applicable

Order No.: Not applicable

Consent Decree No.: Not applicable

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Hydrogeologic work must be performed
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professional, as required by Chapters 18.43
and 18.220, Revised Code of Washington
(RCW).

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List of Acronyms and Abbreviations

APS	Applied Professional Services
bgs	below ground surface
BTEX	benzene, ethylbenzene, toluene, and xylenes
CSID	Cleanup Site Identification number
CUL	cleanup level
DRO	diesel-range organics
Ecology	Washington State Department of Ecology
ERTS	Environmental Report Tracking System
ESC	ESC Lab Sciences
FSID	Facility Site identification number
GPR	ground penetrating radar
GRO	gasoline-range organics
Holt	Holt Services, Inc.
IDW	investigation-derived waste
Kennedy/Jenks	Kennedy/Jenks Consultants
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
MTCA	Model Toxics Control Act
NWRO	Northwest Regional Office (Ecology)
NWTPH-Gx	Northwest Total Petroleum Hydrocarbon - Gasoline Range
PCB	polychlorinated biphenyl
PCSM	preliminary conceptual site model
ppm	parts per million
PVC	polyvinyl chloride
ORO	oil-range organics
QAPP	Quality Assurance Project Plan
QC	quality control
SAP	Sampling and Analysis Plan
SIM	Select Ion Monitoring
Shell	Shell Oil Company
SVOC	semi-volatile organic compound
TPH	total petroleum hydrocarbon
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington State Administrative Code

Executive Summary

This Supplemental Investigation Report was prepared for the Midas Muffler Fauntleroy Facility located at 4457 Fauntleroy Way Southwest in Seattle, Washington (Property) by Kennedy/Jenks Consultants (Kennedy/Jenks) on behalf of the Washington State Department of Ecology (Ecology). Supplemental investigations were performed to 1) understand current environmental Property conditions, 2) develop adequate information to rank the site using Ecology's Site Hazard Assessment (SHA) process, and 3) ultimately evaluate whether the Property may pose a contributing source of contaminants to the Lower Duwamish Waterway (LDW). This report summarizes the results of both historical environmental activities and current supplemental activities conducted at on-property portions of the site to characterize the current environmental conditions and evaluate whether they may contribute to contamination in the LDW. Off-property assessment of impacts resulting from the site were not performed as part of this investigation. (Note: Per WAC 173-340-200, site is defined as where a hazardous substance has come to be located. Because the work in this report is within the Property only, and the site may extend off the Property boundaries; the terms site and Property are used to distinguish statements that only apply to the Property versus those that may apply to the entire site.)

A review of Ecology's records did not contain specific documentation of past contaminant releases or remedial actions at the site, but did contain notes in a 1996 Environmental Report Tracking System Referral documenting soil sampling near two closed in-place 500-gallon underground storage tanks (USTs) which had reportedly contained heating oil and waste oil. Handwritten notes indicated that gasoline-range hydrocarbons and xylenes were detected in soil samples at concentrations that would be greater than current Model Toxics Control Act (MTCA; Washington Administrative Code 173-340) Method A soil cleanup levels; however, no laboratory analysis reports or formal investigation report was included or referenced.

Prior to the current ownership by Midas Properties and its use for automotive repairs, the Property was owned by Shell Oil Company from 1961 to 1976. The nature of Shell's business operation at the site was not stated in the records reviewed but it is expected that the Property was used as a retail gasoline station. A ground penetrating radar (GPR) survey conducted in February 2017 by Kennedy/Jenks Consultants did not find evidence of USTs or recent soil excavation at the Property.

A subsurface investigation was performed in March 2017 which involved the collection and laboratory analyses of soil and groundwater samples. Both soil and groundwater samples collected from the Property contain petroleum hydrocarbons compounds consistent with a gasoline release at concentrations exceeding MTCA Method A cleanup levels.

Because the nature and extent of impacted media at the Property have not been adequately characterized, additional investigation is recommended.

Section 1: Introduction

This Supplemental Investigation Report was prepared to document available information regarding environmental conditions at the Midas Muffler property located at 4457 Fauntleroy Way Southwest in Seattle, Washington (Property), (Figure 1).

This report includes a summary of available Property history information, including previous environmental investigations, as well as the results of a supplemental investigation conducted in 2017. Supplemental investigations were performed to 1) understand current environmental Property conditions, 2) develop adequate information to rank the site using Ecology's Site Hazard Assessment (SHA) process, and 3) ultimately evaluate whether the Property may pose a contributing source of contaminants to the Lower Duwamish Waterway (LDW). These data are used to evaluate potential contaminant exposure pathways and to identify areas where data gaps may exist so they can be addressed during future investigations.

This report was prepared by Kennedy/Jenks on behalf of the Washington State Department of Ecology (Ecology), Northwest Regional Office (NWRO).

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1.1 General Site Information

The Property is located on the northwestern corner of the intersection of Fauntleroy Way Southwest and 37th Avenue Southwest in Seattle, Washington. The Property is currently owned by Midas Properties Inc., and is operated as a Midas Muffler automotive repair facility. The Property has a single building that serves as the repair garage and customer waiting area. A map showing general site features and soil boring locations is presented as Figure 2.

- Ecology Site Name: Midas Muffler Fauntleroy
- Facility Site Identification Number (FSID): 72998672
- Cleanup Site Identification Number (CSID): 10302

The Property is located on tax parcel 095200-4790 and is zoned for commercial use. The legal description of the parcel is as follows:

BOSTON COMPANYS PLAT OF W S & VAC POR ST ADJ LESS ST; Plat Block: 37; Plat Lot: 18 THRU 23

Fauntleroy Way Southwest is a main arterial road in West Seattle with commercial properties on both sides of the road. Residential properties border the site to the north and west.

The nearest water body to the Property is the Longfellow Creek, located approximately 0.6 mile to the east. Longfellow creek is an approximately 4-mile long creek that drains into the West Duwamish Waterway and Elliot Bay, a bight of the Puget Sound.

1.2 Property History

Historical aerial photographs of the Property were obtained as follows (see Appendix A):

- King County (1936)
- United States Army Corp of Engineers (1942)
- Department of Natural Resources (1952, 1959, 1965, 1970, 1978, 1985, 1992)
- United States Geological Survey (1990, 2002)
- Google Earth (2011).

The results of a property title search show that the Property has changed ownership several times since the first recorded deed in 1943. The early use of the Property is unknown; however, the area along Fauntleroy Way Southwest appears to have been developed for commercial uses by 1936. Several small structures are visible in historical aerial photographs of the Property dating from 1936 to 1959. The Property was sold to Shell Oil Company (Shell) in 1961. King County Assessor's Office records indicate the current building was constructed in 1965, and aerial images from 1965 show the building with what appears to be a large canopy structure out front. The canopy is still visible in aerial images from 1970, but appears to have been removed in aerial images from 1978 (Appendix A, Figures A-1 through A-7). Shell sold the Property to Midas Realty Corporation in 1976. A copy of the title search and summarized title transactions is provided in Appendix B.

Whether or not Shell had underground storage tanks (USTs) on the Property during their ownership is unknown. Based review of historical aerial photographs for 1965 and 1970, a canopy may have been present in the southern portion of the Property which suggests that fueling activities were also performed on the Property. However, this has not been confirmed through review of the available file information.

An Ecology Environmental Report Tracking System (ERTS) Referral dated November 1996 (Appendix C) notes there were two 500-gallon USTs on the Property; one was reportedly used for heating oil, and the other for waste oil. Handwritten notes from Ecology's initial investigation visit indicate both USTs were closed in place prior to the November 1996 ERTS Referral. The notes indicate that "soil sample bore holes" were visible during the site visit, but no evidence was visible indicating the tanks had been removed (i.e., no signs of recent excavation or new asphalt). The Ecology notes indicate that petroleum (type not specified) was detected in soil

samples analyzed by Method 418.1 at concentrations up to 1,200 parts per million (ppm). Gasoline-range hydrocarbon was detected at a concentration of 2,600 ppm, and xylenes at 60 ppm. No analytical data or written field investigation report was included with the ERTS Referral.

The detected concentrations of gasoline-range hydrocarbons and xylenes reported in Ecology's files also suggest there may have been a source of fuel contamination other than the heating oil and waste oil USTs.

1.3 Property Use

The Property is currently being used by Midas Muffler as an automotive repair facility. There is no information to indicate that fueling activity is part of this use or that fueling facilities are present. The entire Property is surfaced with asphalt pavement, and at least one stormwater catch basin was noted on the Property during site visits in 2017.

Section 2: Previous Investigations and Remedial Activities

Other than the soil samples described in Section 1.2, there is no record in Ecology's files of any previous investigations or remedial activities at the Property.

During field subsurface investigation activities in February and March 2017, an asphalt patch was observed in the parking area where two former USTs were believed to have been previously located, suggesting the USTs may have been removed. However, no report was found documenting such removal. [Note: As discussed in Section 3.1.1, a ground penetrating radar (GPR) survey did not detect evidence there are USTs remaining on-property.]

Section 3: 2017 Supplemental Investigation

This section presents the scope and methods of 2017 subsurface investigation activities, as well as a description of the geology. This work was conducted to provide preliminary data regarding the current subsurface environmental conditions at the Property.

- Site reconnaissance and assessment of existing underground utilities.
- A GPR survey was conducted in February 2017 to look for evidence of USTs on the Property.
- Six soil borings (B-1 through B-6) were advanced for soil and groundwater sampling in March 2017 (Figure 2).

3.1 Field Methods

The field methods used during the 2017 supplemental investigation activities are described below. Field methods were conducted in accordance with the draft Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP; Kennedy/Jenks Consultants 2017) and associated SAP addendum. A copy of the SAP addendum is included in Appendix D.

3.1.1 Ground Penetrating Radar Survey

A GPR survey was conducted on 28 February 2017 by Applied Professional Services of North Bend, Washington (APS). APS personnel surveyed the parking area of the Property using a GSSI UtilityScan® DF with a dual-frequency antenna (300 and 800 megahertz). APS reported the instrument sensing range extended to approximately 8 feet in depth during the Midas Survey. Several potential utility lines were detected during the GPR survey; however, no evidence of USTs was observed. Although no evidence of USTs was noted during the GPR survey, an asphalt patch was visible in the southwestern portion of the parking lot near boring B-6 where the former heating oil and waste oil USTs may have been located. This asphalt patch is located south-southwest from the former canopy identified in the 1965 and 1970 aerial photographs.

3.1.2 Drilling and Soil Sampling

Prior to performing drilling activities, publicly available information regarding the location of subsurface utilities was reviewed and a one-call public utility locate request (811) was made in order to identify public underground utilities on the Property. Following the public utility locate, a private utility survey was conducted by APS to attempt to locate underground utilities not listed in the public record. As a further precaution to avoid damaging underground utilities, prior to drilling, the upper 5 feet at each soil boring location was evaluated by removing soil using an air knife and vacuum truck (air knife).

Soil borings were advanced using a Geoprobe® direct-push drill rig operated by Holt Services, Inc., of Edgewood, Washington (Holt). Continuous soil cores were retrieved from the boreholes for lithologic classification, field screening, and soil sampling. Soil borings B-1, B-2, B-4, and B-5 were advanced to a final depth of 20 feet below ground surface (bgs). Borings B-3 and B-6

were advanced to a final depth of 15 feet and 6 feet bgs, respectively. A large piece of concrete was encountered in boring B-6 (as evidenced by concrete fragments in the drilling shoe) which prevented the boring from being advanced beyond 6 feet.

A total of 11 soil samples were collected for chemical analyses from borings B-1 through B-5 at selected depth intervals. Soil samples were labeled with the boring identification (B-1, B-2, etc.) followed by the depth in feet bgs that the samples were collected from. For example, the soil sample collected from boring B-2 at a depth of 19 to 20 feet bgs was labeled "B-2 (19.0-20.0)". Soil samples were placed directly into laboratory supplied containers, labeled with the sample identification and date and time of collection, and packed in a chilled ice chest which was shipped to ESC Lab Sciences in Mt. Juliet, Tennessee (ESC) (a Washington State accredited environmental laboratory), following standard chain-of-custody procedures.

Soil sample were analyzed in the laboratory for Gasoline-range Organics (GRO) by Ecology Method NWTPH-Gx, diesel-range organics (DRO) and oil-range organics (ORO) by Method NWTPH-Dx, and semi-volatile organic compounds (SVOCs) with Select Ion Monitoring (SIM) by Method 8270D SIM. Selected soil samples were also analyzed for volatile organic compounds (VOCs) by Method 8260C, total metals by Methods 6010C (arsenic, barium, cadmium, chromium, lead, selenium, and silver) and 7471A (mercury), and polychlorinated biphenyls (PCBs) by Method 8082.

Soil analytical results are discussed in Section 3.3.1. The soil boring logs are included in Appendix E.

3.1.3 Reconnaissance Groundwater Sampling

Reconnaissance groundwater samples were collected from borings B-1 and B-5. Once the borings had been advanced to their final depths, a temporary, ¾-inch diameter polyvinyl chloride (PVC) casing and machine-slotted well screen section were placed directly into the open bore hole. The temporary wells were screened from 10 to 20 feet bgs. Groundwater was purged from the temporary well using a peristaltic pump and dedicated polyethylene tubing. Samples were collected directly into laboratory-supplied sampling containers, labeled, and placed in a chilled ice chest for transport to ESC following standard chain-of-custody procedures.

Groundwater samples were analyzed for: GRO by Method NWTPH-Gx, DRO and ORO by Method NWTPH-Dx, VOCs by Method 8260C, SVOCs by Method 8270D-SIM, and dissolved metals by Methods 6010C (arsenic, barium, cadmium, chromium, lead, selenium, and silver) and 7470A (mercury). Samples for analysis of dissolved metals were filtered in the laboratory using a 0.45-micron filter prior to analysis. Groundwater analytical results are discussed in Section 3.3.2.

3.1.4 Investigation-Derived Waste Disposal

Investigation-derived waste (IDW) generated during the 2017 subsurface investigation consisted of soil cuttings, decontamination water, and purge water from groundwater sampling. The IDW was placed in 55-gallon drums, labeled, and temporarily stored on-property. A waste profile was generated for the waste based on soil and groundwater analytical results, and the waste was transported off-property by Cascade Drilling Inc., for disposal at Burlington Environmental,

LLC, in Kent, Washington. Copies of the waste disposal manifest and the waste profile are included in Appendix F.

3.2 Property Geology

The generalized lithology noted during drilling activities in 2017 consists of alternating layers of silty sands, sands with silt, and silt, clay and gravel mixtures to a depth of 20 feet. Concrete (possibly fill material) was encountered in boring B-6 at a depth of 6 feet which prevented further drilling. Groundwater was encountered in only two of the borings advanced (B-1 and B-5) at a depth of approximately 15 feet. Because saturated conditions were only observed in two of the four borings advanced to a depth of 20 feet, it is possible that the groundwater occurs in localized perched lenses as opposed to in a laterally continuous shallow saturated unit. The saturated zone encountered in borings B-1 and B-5 was comprised of relatively permeable poorly graded sand with silt. The other two borings advanced to a depth of 20 feet (B-2 and B-4) penetrated lower permeability sandy clayey silt below 15 feet. The sandy clayey silt layer was observed to be "moist"; consequently, it is possible that it is saturated but yields groundwater slowly (none accumulated in the boring after approximately 10 minutes that the temporary wells were in place). Also, because B-2 and B-4 were terminated in sandy clayey silt unit, it was not determined whether or not a more permeable saturated zone may exist beneath these soils.

No permanent monitoring wells were completed at the Property. Consequently, information regarding the potential groundwater flow direction was not developed during this investigation.

A interpretive geologic cross section is presented on Figure 3.

While drilling, groundwater was encountered at 15 feet below grade in several borings and not encountered in other borings at depths of up to 20 feet. Due to the depth of groundwater (15 feet or deeper), surface water is not expected to have been directly impacted by releases to groundwater at the Property.

3.3 Analytical Results

This section presents the analytical results for the soil and groundwater samples collected in 2017. Analytical results discussed below are compared to the Model Toxics Control Act [MTCA; Washington Administrative Code (WAC) 173-340] Method A or B cleanup levels (CULs) for unrestricted land use and the protection of potable groundwater. Soil and groundwater laboratory analytical reports are included in Appendix G.

3.3.1 Soil Analytical Results

GRO was detected in two soil samples at a concentration greater than the MTCA Method A soil cleanup level of 30 milligrams per kilogram (mg/kg). GRO was detected at a concentration of 13,800 mg/kg and 289 mg/kg in samples B-3 (6.0-7.0) and B-4 (6.0-7.0), respectively.

DRO or ORO were not detected in any soil samples at a concentration greater than the MTCA Method A soil CUL. The highest DRO concentration detected was 166 mg/kg and ORO was not detected above the reporting limit.

Several SVOCs were detected at concentrations greater than the laboratory reporting limit in soil samples collected from borings B-3, B-4, and B-5. However, naphthalene was the only compound detected at a concentration greater than the MTCA Method A soil CUL from sample B-3 (6.0-7.0). Naphthalene was detected at a reported concentration of 12.6 mg/kg. As discussed below, naphthalene was also analyzed as a VOC as part of Method 8260C, and a higher concentration of 45.9 mg/kg was reported for the same sample using this method. Soil samples submitted for cPAHs were not detected at a concentration greater than the laboratory reporting limits.

VOCs were only detected at concentrations above the soil screening CULs in one sample, B-3 (6.0-7.0). The compounds detected above soil screening CULs were benzene (3.48 mg/kg), ethylbenzene (177 mg/kg), naphthalene (45.9 mg/kg), toluene (19.7 mg/kg), and xylenes (938 mg/kg). The presence of these compounds at concentrations greater than the soil CULs may be indicative of a prior gasoline release. Due to the need for the analytical laboratory to perform dilutions to complete sample analyses, several VOC analytes were reported with laboratory reporting limits that are greater than their respective soil CULs.

None of the metals analyzed (arsenic, barium, cadmium, chromium, lead, mercury, selenium, or silver) were detected in soil samples at a concentration greater than their respective soil screening CULs.

PCBs were analyzed in samples B-3 (6.0-7.0) and B-4 (6.0-7.0) and were not detected at a concentration greater than the laboratory reporting limit of approximately 0.02 mg/kg.

Soil analytical results are summarized in Table 1 and displayed on Figures 4 and 5.

3.3.2 Groundwater Analytical Results

Reconnaissance groundwater samples were collected from borings B-1 and B-5, and a field duplicate sample was collected from boring B-5. Groundwater analytical results are summarized in Table 2.

(Note: In discussions of all reconnaissance groundwater sample results, it is acknowledged that analyte concentrations, especially total metals, are biased high due to excessive turbidity in the sample (which is characteristic of reconnaissance groundwater samples.) Consequently, reconnaissance sample results should not be used for making regulatory decisions for the site.

GRO and DRO were detected in reconnaissance groundwater samples from both B-1 and B-5 at a concentration greater than the MTCA Method A groundwater cleanup level of 800 micrograms per liter (µg/L) and 500 µg/L. GRO was detected at a concentration of 2,440 µg/L and 6,120 µg/L, respectively. DRO was detected at a concentration of 599 µg/L and 771 µg/L, respectively.

Two SVOCs, 1-methylnaphthalene and 2-methylnaphthalene, were detected in groundwater at concentrations greater than their respective MTCA Method B groundwater CULs. Several VOCs were detected in groundwater samples at concentrations greater than the respective groundwater CULs, including:

- 1,3,5-trimethylbenzene was detected in the sample from B-5 at a concentration of 181 µg/L, greater than the MTCA Method B groundwater CUL of 80 µg/L.
- Benzene was detected at concentrations of 27.3 µg/L and 5.40 µg/L in samples from borings B-1 and B-5, respectively, greater than the MTCA Method A groundwater CUL of 5 µg/L.
- Chloroform was detected at a concentration of 7.06 µg/L in the sample from boring B-1, greater than the MTCA Method B groundwater CUL of 1.41 µg/L.

Dissolved arsenic, cadmium, chromium, lead, mercury, selenium, and silver were not detected at concentrations greater than the laboratory reporting limit or method detection limits in samples from either B-1 or B-5. Dissolved phase barium was detected in both samples at concentrations less than the MTCA Method B groundwater CUL.

Groundwater analytical results are summarized in Table 2. Compounds detected at a concentration greater than the respective groundwater CULs are also presented on Figure 6.

3.3.3 Quality Assurance/Quality Control

Field and laboratory quality control (QC) measures, standard analytical procedures, proper data management protocols, and laboratory report validation procedures were implemented/followed during the 2017 investigation activities. Field procedures were performed in general accordance with the SAP/QAPP (Kennedy/Jenks Consultants 2017) and SAP Addendum. Overall, the findings of the data validations indicate the analytical results from the 2017 subsurface investigation are appropriate for their intended use. The data validation report is provided in Appendix H.

Section 4: Data Gaps Summary

This section presents a summary of identified data gaps based on a review of available records in Ecology files and the results of the 2017 investigation activities.

4.1 Contaminant Sources

A general data gap exists regarding contaminant sources: The possible presence of other contaminant release sources (besides the heating and waste oil USTs) related to current and former activities at the Property need to be further researched/investigated, as appropriate. The concentrations of GRO and benzene, ethylbenzene, toluene, and xylenes (BTEX) detected in soil and groundwater samples collected during the 2017 subsurface investigation suggest other petroleum products besides heating oil and waste oil were stored and/or handled on the Property. Specifically, the 2017 soil and groundwater analytical results are consistent with gasoline release(s); however, there is no documentation that fueling activities were performed at the Property.

4.2 Soil Data Gaps

The main soil data gaps are: (1) the extent of petroleum hydrocarbon soil contamination found during the 2017 subsurface investigation should be adequately characterized, and (2) soil quality data for other areas of the Property not investigated in 2017 needs to be acquired.

As discussed in Section 3.3.1, soil was confirmed to be impacted by GRO, BTEX, and naphthalene at concentrations greater than MTCA soil screening CULs, in borings B-3 and B-4. These two borings are located north and northwest of an asphalt patch surrounding boring B-6 that may represent the former location of one or more USTs.

Site soil was not investigated beyond the southwestern corner of the parking lot. If the Property was used by Shell as a retail fueling station, potential areas for future investigation would include the vicinities of any former storage, conveyance, and dispensing features (e.g., fueling islands, underground fuel conveyance piping alignments, and former fuel storage tanks).

4.3 Groundwater Data Gaps

The main groundwater data gaps include: (1) the extent of dissolved petroleum hydrocarbon groundwater contamination detected during the 2017 subsurface investigation needs to be adequately characterized, and (2) information on the basic hydrogeologic characteristics of the Property should be obtained.

As discussed in Section 3.3.1, groundwater is impacted by GRO and several SVOCs and VOCs at concentrations greater than MTCA screening CULs. Because groundwater was encountered at a depth of about 15 feet bgs in borings B-1 and B-5, but not in the other two borings advanced to 20 feet bgs, additional information regarding the continuity of shallow groundwater across the Property should be obtained. Additional groundwater investigation (e.g., construction of monitoring wells) should be conducted to develop an understanding of groundwater occurrence and flow direction at the Property. Understanding these hydrogeologic

characteristics are essential to evaluating the nature and extent of groundwater impacts from past activities at the Property.

The detection of GRO and benzene in reconnaissance groundwater samples are consistent with a gasoline release(s) and may indicate that other sources of petroleum contamination may have existed besides reported heating oil and waste oil USTs described in Ecology notes.

Groundwater has not been investigated in portions of the site outside of the southwestern corner of the parking lot, so the extent of groundwater impacts by petroleum is unknown. As noted in Section 4.1, there are also other potential on-property sources of chemical contaminants which could have impacted soil and/or groundwater, and have not been investigated.

4.4 Vapor Intrusion Data Gaps

Because GRO, BTEX compounds, and other VOCs are confirmed to be present in Property soil and groundwater, the potential for soil vapor migration and intrusion into indoor airspaces exists. Additional characterization of the nature and extent of soil and groundwater contamination at the Property is warranted to adequately evaluate this potential exposure pathway. The detection of benzene in reconnaissance groundwater samples at concentrations ranging from 5.4 to 27.3 µg/L exceeds the Ecology screening level for vapor intrusion of 2.4 µg/L (based on possible carcinogenic effects).

Section 5: Preliminary Conceptual Site Model

A preliminary conceptual site exposure model (PCSM) was developed for the site based on analytical results of soil and groundwater samples collected during the 2017 site investigation, and the current understanding of site geology and hydrogeology.

Historical release(s) of gasoline have likely occurred on the Property based on the presence of GRO, BTEX, and SVOC/VOC constituents detected in both soil and/or groundwater samples. The source(s) of the release(s) is unknown, but could possibly have included leaks of gasoline placed in the reported heating oil and/or waste oil USTs on the Property. A canopy was identified in the historical aerial photographs and appears to indicate that a retail fueling station was present at the site. The dates, volumes, and mechanisms of the apparent release(s) are unknown. The preliminary PCSM is presented on Figure 7.

Because the Property is entirely paved, runoff is not a transport mechanism for soil contaminants. The downward migration of subsurface soil contaminants (i.e., petroleum hydrocarbons) towards groundwater, leaching to groundwater, and/or volatilization were the primary potential transport mechanisms for subsurface soil contaminants in the past, but are now substantially mitigated by the presence of low permeability cover over the Property. Once transported to groundwater, soluble contaminants dissolve and are transported by advection, diffusion, and partitioning into soil gas (i.e., volatilization).

The potential exposure pathways for all sources include incidental dermal absorption, incidental ingestion, and vapor inhalation.

Groundwater was encountered at 15 feet below grade in several borings and not encountered in other borings at depths of up to 20 feet. Due to the depth of groundwater (15 feet or deeper), surface water is not expected to have been directly impacted by releases to groundwater at the Property.

Section 6: Proposed Cleanup Levels

CULs used for comparison with soil and groundwater data collected during the site investigation activities are based on Ecology's MTCA Method A and B CULs. The CULs are summarized in Table 3 below.

Table 3: Soil and Groundwater Cleanup Levels^(a)

COC	Soil CUL	Groundwater CUL	CUL Basis ^(b)
TPH-Diesel	2,000 mg/kg	500 µg/L	MTCA Method A
TPH-Gasoline	100 mg/kg (w/o benzene) 30 mg/kg (with benzene)	1,000 µg/L (w/o benzene) 800 µg/L (with benzene)	MTCA Method A
Benzene	30 µg/kg / 1.82E+04 µg/kg	5 µg/L 0.795 µg/L	MTCA Method A / MTCA Method B
Toluene	7,000 µg/kg / 6.40E+06 µg/kg	1,000 µg/L 640 µg/L	MTCA Method A / MTCA Method B
Ethylbenzene	6,000 µg/kg / 8.00E+06 µg/kg	700 µg/L / 800 µg/L	MTCA Method A / MTCA Method B
Xylenes	9,000 µg/kg / 1.60E+06 µg/kg	1,000 µg/L / 1,600 µg/L	MTCA Method A / MTCA Method B

Notes:

- (a) MTCA Method A cleanup levels are based on unrestricted land uses (soil) or protection of potable water. **Bold** value denotes proposed cleanup level.
- (b) MTCA Method A/B cleanup levels based on Ecology's August 2015 CLARC database.
 mg/kg = milligrams per kilogram
 µg/L = micrograms per liter
 µg/kg = micrograms per kilogram
 TPH = total petroleum hydrocarbons

Section 7: Conclusions and Recommendations

No historical reports were available for review which specifically documented past contaminant releases or remedial activities conducted at the Property. An Ecology release report dated 1996 noted there were two 500-gallon USTs on the Property that had been closed in place. Handwritten notes indicate that soil sampling near the USTs was performed and that petroleum (type not specified) was detected in soil samples analyzed by Method 418.1 at concentrations up to 1,200 ppm. GRO was detected at a concentration of 2,600 ppm, and xylenes at 60 ppm. Prior to the current ownership by Midas Properties, the Property was owned by Shell from 1961 to 1976. The nature of Shell's business operation at the Property was not stated in the records reviewed. Historical aerial photographs appear to indicate the presence of a former canopy that may have been associated with a former retail fueling operation at the Property; however, formal documentation of past fueling activities was not identified in the file information.

A GPR survey conducted in February 2017 did not identify evidence of USTs, piping, or recent soil excavation at the Property.

A subsurface investigation was conducted in March 2017 to assess current Property conditions and provide preliminary environmental data regarding possible past releases at portions of the Property. GRO, BTEX compounds, and naphthalene were detected in soil samples at concentrations greater than MTCA Method A soil CULs. GRO, DRO, benzene, 1-methylnaphthalene, 2-methylnaphthalene, and chloroform were detected in reconnaissance groundwater samples at concentrations greater than MTCA Method A or B groundwater CULs. The investigation was limited to the area in the southwestern corner of the Property in accordance with the owners request and other portions of the Property were not investigated. The extent of impacts to soil and groundwater has not been fully characterized.

Groundwater was encountered intermittently at depths below 15 feet bgs. Based on the available information, the nature of shallow groundwater beneath the site was not identified. It is not known whether or not impacted groundwater extends off-property or not.

7.1 Recommendations

Additional sources of information regarding the former use of the Property by Shell should be researched to ascertain whether it was operated as a retail gasoline station. If the Property was used by Shell for fuel dispensing, any specific information about this operation will be helpful to the development of a focused plan for additional investigations.

Additional investigation is warranted in areas outside of the southwestern corner of the Property (and potentially including inside the building) as no soil or groundwater chemical analytical data are available for those areas. These additional investigation activities should include collection of soil and groundwater samples for laboratory analyses, as well as the construction and monitoring of at least three shallow groundwater monitoring wells in order to address the basic hydrogeology data gaps discussed in Section 4.2.

Vapor intrusion into the building is possible given the levels of benzene detected in groundwater; consequently, assessment of the vapor intrusion pathway should be performed to assess the presence of benzene and other volatile compounds in indoor work spaces.

Section 8: Limitations

This report was prepared for the exclusive use of the Washington State Department of Ecology (Ecology). Kennedy/Jenks Consultants' services were limited to scope of services specified in our agreement with Ecology. Use of, or reliance on, the information contained in this report by other parties is at their sole risk. The information contained in this report is based on review of readily available environmental records provided by Ecology, review of available aerial photographs and related site information acquired for the Property, and the results of limited site characterization work completed by Kennedy/Jenks Consultants in accordance with our scope of services. Kennedy/Jenks Consultants' activities were conducted in accordance with practices and procedures generally accepted in the consulting field by others performing these types of services.

This report represents Kennedy/Jenks Consultants' professional opinion and judgment, which are dependent upon information obtained during performance of our consulting services. Site investigation activities identified in this report were not intended to be a comprehensive characterization of all site conditions. Other environmental conditions and/or affected media may exist at the site that cannot be or were not identified through the services performed. Any conclusions or recommendations provided herein are based, in part, on information supplied by others; therefore, the accuracy or sufficiency of which has not been independently reviewed by Kennedy/Jenks Consultants. No investigation can be thorough enough to identify the presence of all impacted media or adverse environmental conditions at the site.

Any opinions presented in this report apply to conditions at the time the services were performed and do not address the potential for future releases or changing site conditions. Changes in applicable environmental standards, practices, or regulations may occur following performance of services, which could impact the opinions presented.

References

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<http://blue.kingcounty.com/Assessor/eRealProperty/Dashboard.aspx?ParcelNbr=0952004790>. Accessed at 26 April.

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Tables

SOIL SAMPLE ANALYTICAL RESULTS
Midas Muffler Fauntleroy Site
Seattle, Washington

Location Sample ID Date Parent Sample ID Sample Depths (bgs) Note					B-01	B-01	B-02	B-02	B-03	B-03	B-04	B-04	B-05	B-05	B-05
					B-1	B-1	B-2	B-2	B-3	B-3	B-4	B-4	B-5	B-5	B-5
					(10.0-11.0)	(19.0-20.0)	(13.0-14.0)	(19.0-20.0)	(6.0-7.0)	(14.0-15.0)	(6.0-7.0)	(11.0-12.0)	(12.0-13.0)	DUP-1-SOIL	(19.0-20.0)
					3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017
														B-5 (12.0-13.0)	
					10-11 ft	19-20 ft	13-14 ft	19-20 ft	6-7 ft	14-15 ft	6-7 ft	11-12 ft	12-13 ft	12-13 ft	19-20 ft
Chemical	Unit	TEF	MTCA A then Lowest B CUL												
Total Petroleum Hydrocarbons															
Gasoline-Range Organics	mg/kg		30/100	Method A	0.292	< 0.112	< 0.111	< 0.115	13800	15.2	289	1.63	11.5	0.724	0.420
Oil-Range Organics	mg/kg		2000	Method A	< 11.5	< 11.2	< 11.1	< 11.5	< 240	< 11.5	< 12.4	< 11.2	< 11.6	< 11.8	< 11.7
Diesel-Range Organics	mg/kg		2000	Method A	< 4.58	< 4.47	< 4.45	< 4.62	166	< 4.59	22.7	< 4.48	< 4.65	< 4.70	< 4.69
BTX															
Benzene	mg/kg		0.03	Method A	< 0.00115	< 0.00112	< 0.00111	< 0.00115	3.48	< 0.0287	< 0.0891	< 0.0207	< 0.0212	0.00237	< 0.00117
Toluene	mg/kg		7	Method A	< 0.00573	< 0.00558	< 0.00557	< 0.00577	19.7	< 0.143	< 0.445	< 0.104	< 0.106	< 0.00588	< 0.00586
Ethylbenzene	mg/kg		6	Method A	0.00423	< 0.00112	< 0.00111	< 0.00115	177	0.170	3.56	0.314	< 0.0212	0.00130	< 0.00117
Xylene, total	mg/kg		9	Method A	0.00440	< 0.00335	< 0.00334	< 0.00346	938	0.500	1.22	0.373	< 0.0637	< 0.00353	< 0.00351
Polychlorinated Biphenyls															
PCB-1016 (Aroclor 1016)	mg/kg		5.6	B Non Cancer	--	--	--	--	< 0.0204	--	< 0.0210	--	--	--	--
PCB-1221 (Aroclor 1221)	mg/kg				--	--	--	--	< 0.0204	--	< 0.0210	--	--	--	--
PCB-1232 (Aroclor 1232)	mg/kg				--	--	--	--	< 0.0204	--	< 0.0210	--	--	--	--
PCB-1242 (Aroclor 1242)	mg/kg				--	--	--	--	< 0.0204	--	< 0.0210	--	--	--	--
PCB-1248 (Aroclor 1248)	mg/kg				--	--	--	--	< 0.0204	--	< 0.0210	--	--	--	--
PCB-1254 (Aroclor 1254)	mg/kg		0.500	B Cancer	--	--	--	--	< 0.0204	--	< 0.0210	--	--	--	--
PCB-1260 (Aroclor 1260)	mg/kg		0.500	B Cancer	--	--	--	--	< 0.0204	--	< 0.0210	--	--	--	--
Total PCBs (HalfDL)	mg/kg		1	Method A	--	--	--	--	< 0.0714	--	< 0.0735	--	--	--	--
Total PCBs (HitsOnly)	mg/kg		1	Method A	--	--	--	--	< 0.00	--	< 0.00	--	--	--	--
Semi Volatile Organic Compounds using SIM															
1-Methylnaphthalene	mg/kg		34.5	B Cancer	< 0.0229	< 0.0223	< 0.0223	< 0.0231	5.98	0.0302	0.210	< 0.0224	< 0.0233	0.207	< 0.0234
2-Chloronaphthalene	mg/kg		6400	B Non Cancer	< 0.0229	< 0.0223	< 0.0223	< 0.0231	< 0.0240	< 0.0230	< 0.0247	< 0.0224	< 0.0233	< 0.0235	< 0.0234
2-Methylnaphthalene	mg/kg		320	B Non Cancer	< 0.0229	< 0.0223	< 0.0223	< 0.0231	14.6	0.0701	0.484	< 0.0224	< 0.0233	0.295	< 0.0234
Acenaphthene	mg/kg		4800	B Non Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	0.0269	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Acenaphthylene	mg/kg				< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Anthracene	mg/kg		24000	B Non Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	0.0274	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Benzo(a)anthracene	mg/kg	0.1	1.37	B Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Benzo(a)pyrene	mg/kg	1	0.1	Method A	< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Benzo(b)Fluoranthene	mg/kg	0.1	1.37	B Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Benzo(g,h,i)Perylene	mg/kg				< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Benzo(k)Fluoranthene	mg/kg	0.1	13.7	B Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Chrysene	mg/kg	0.01	137	B Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Dibenz(a,h)Anthracene	mg/kg	0.1	0.137	B Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Fluoranthene	mg/kg		3200	B Non Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	0.00902	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Fluorene	mg/kg		3200	B Non Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	0.0784	< 0.00689	< 0.00742	< 0.00672	< 0.00698	0.00884	< 0.00703
Indeno(1,2,3-c,d)Pyrene	mg/kg	0.1	1.37	B Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	< 0.00720	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Naphthalene	mg/kg		5	Method A	< 0.0229	< 0.0223	< 0.0223	< 0.0231	12.6	0.0670	0.426	< 0.0224	< 0.0233	0.0405	< 0.0234
Phenanthrene	mg/kg				< 0.00688	< 0.00670	< 0.00668	< 0.00693	0.0857	< 0.00689	< 0.00742	< 0.00672	< 0.00698	0.00817	< 0.00703
Pyrene	mg/kg		2400	B Non Cancer	< 0.00688	< 0.00670	< 0.00668	< 0.00693	0.0296	< 0.00689	< 0.00742	< 0.00672	< 0.00698	< 0.00705	< 0.00703
Total cPAHs (HalfDL)	mg/kg		0.1	Method A	< 0.00519	< 0.00506	< 0.00504	< 0.00523	< 0.00544	< 0.00520	< 0.00560	< 0.00507	< 0.00527	< 0.00532	< 0.00531
Total cPAHs (HitsOnly)	mg/kg		0.1	Method A	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane	mg/kg		38.5	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,1,1-Trichloroethane	mg/kg		2	Method A	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,1,2,2-Tetrachloroethane	mg/kg		5.00	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,1,2-Trichloroethane	mg/kg		17.5	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,1-Dichloroethane	mg/kg		175	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,1-Dichloroethene	mg/kg		4000	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,1-Dichloropropene	mg/kg				< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,2,3-Trichlorobenzene	mg/kg				< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,2,3-Trichloropropane	mg/kg		0.0333	B Cancer	< 0.00287	--	< 0.00278	--	< 2.31	--	< 0.223	--	< 0.0531	< 0.00294	--
1,2,3-Trimethylbenzene	mg/kg				0.0112	--	< 0.00111	--	104	--	4.24	--	< 0.0212	0.00413	--
1,2,4-Trichlorobenzene	mg/kg		34.5	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,2,4-Trimethylbenzene	mg/kg				< 0.00115	--	< 0.00111	--	423	--	5.31	--	< 0.0212	< 0.00118	--
1,2-Dibromo-3-Chloropropane (DBCP)	mg/kg		1.25	B Cancer	< 0.00573	--	< 0.00557	--	< 4.62	--	< 0.445	--	< 0.106	< 0.00588	--
1,2-Dibromomethane (EDB)	mg/kg		0.005	Method A	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,2-Dichlorobenzene	mg/kg		7200	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,2-Dichloroethane (EDC)	mg/kg		11.0	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,2-Dichloropropane	mg/kg		27.8	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,3,5-Trimethylbenzene	mg/kg		800	B Non Cancer	0.00342	--	< 0.00111	--	140	--	1.80	--	< 0.0212	< 0.00118	--
1,3-Dichlorobenzene	mg/kg				< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--
1,3-Dichloropropane	mg/kg														

SOIL SAMPLE ANALYTICAL RESULTS
Midas Muffler Fauntleroy Site
Seattle, Washington

Location					B-01	B-01	B-02	B-02	B-03	B-03	B-04	B-04	B-05	B-05	B-05	
					B-1	B-1	B-2	B-2	B-3	B-3	B-4	B-4	B-5	B-5	B-5	
					Sample ID	(10.0-11.0)	(19.0-20.0)	(13.0-14.0)	(19.0-20.0)	(6.0-7.0)	(14.0-15.0)	(6.0-7.0)	(11.0-12.0)	(12.0-13.0)	DUP-1-SOIL	(19.0-20.0)
					Date	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017	3/1/2017
					Parent Sample ID										B-5	
Sample Depths (bgs)					10-11 ft	19-20 ft	13-14 ft	19-20 ft	6-7 ft	14-15 ft	6-7 ft	11-12 ft	12-13 ft	12-13 ft	19-20 ft	
Note																
Chemical	Unit	TEF	MTCA A then Lowest B CUL													
Carbon Tetrachloride	mg/kg		14.3	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Chlorobenzene	mg/kg		1600	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Chloroethane	mg/kg				< 0.00573	--	< 0.00557	--	< 4.62	--	< 0.445	--	< 0.106	< 0.00588	--	
Chloroform	mg/kg		32.3	B Cancer	< 0.00573	--	< 0.00557	--	< 4.62	--	< 0.445	--	< 0.106	< 0.00588	--	
Chloromethane	mg/kg				< 0.00287	--	< 0.00278	--	< 2.31	--	< 0.223	--	< 0.0531	< 0.00294	--	
cis-1,2-Dichloroethene	mg/kg		160	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
cis-1,3-Dichloropropene	mg/kg		10.0	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Cymene (p-Isopropyltoluene)	mg/kg				< 0.00115	--	< 0.00111	--	2.32	--	0.104	--	< 0.0212	< 0.00118	--	
Dibromochloromethane	mg/kg		11.9	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Dibromomethane	mg/kg		800	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Dichlorodifluoromethane	mg/kg		16000	B Non Cancer	< 0.00573	--	< 0.00557	--	< 4.62	--	< 0.445	--	< 0.106	< 0.00588	--	
Di-Isopropyl ether (DIPE)	mg/kg				< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Freon 113	mg/kg		2400000	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Hexachlorobutadiene	mg/kg		12.8	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Isopropylbenzene	mg/kg		8000	B Non Cancer	0.00549	--	< 0.00111	--	16.1	--	0.878	--	< 0.0212	0.00673	--	
Methyl ethyl ketone (2-Butanone)	mg/kg		48000	B Non Cancer	< 0.0115	--	< 0.0111	--	< 9.25	--	< 0.891	--	< 0.212	< 0.0118	--	
Methyl Isobutyl Ketone (MIBK)	mg/kg		6400	B Non Cancer	< 0.0115	--	< 0.0111	--	< 9.25	--	< 0.891	--	< 0.212	< 0.0118	--	
Methyl tert-Butyl ether	mg/kg		0.1	Method A	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Methylene Chloride	mg/kg		0.02	Method A	< 0.00573	--	< 0.00557	--	< 4.62	--	< 0.445	--	< 0.106	< 0.00588	--	
Napthalene	mg/kg		5	Method A	< 0.00573	--	< 0.00557	--	45.9	--	1.36	--	< 0.106	< 0.00588	--	
n-Butylbenzene	mg/kg		4000	B Non Cancer	0.00160	--	< 0.00111	--	16.8	--	0.579	--	< 0.0212	0.00471	--	
n-Propylbenzene	mg/kg		8000	B Non Cancer	0.0177	--	< 0.00111	--	72.4	--	3.63	--	0.0600	0.0314	--	
Sec-Butylbenzene	mg/kg		8000	B Non Cancer	0.00220	--	< 0.00111	--	5.87	--	0.316	--	< 0.0212	0.00578	--	
Styrene	mg/kg		16000	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Tert-Butylbenzene	mg/kg		8000	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Tetrachloroethene (PCE)	mg/kg		0.05	Method A	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
trans-1,2-Dichloroethene	mg/kg		1600	B Non Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
trans-1,3-Dichloropropene	mg/kg		10.0	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Trichloroethene (TCE)	mg/kg		0.03	Method A	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Trichlorofluoromethane	mg/kg		24000	B Non Cancer	< 0.00573	--	< 0.00557	--	< 4.62	--	< 0.445	--	< 0.106	< 0.00588	--	
Vinyl Chloride	mg/kg		0.670	B Cancer	< 0.00115	--	< 0.00111	--	< 0.925	--	< 0.0891	--	< 0.0212	< 0.00118	--	
Metals																
Arsenic	mg/kg		20	Method A	< 2.29	--	< 2.23	--	< 2.40	--	< 2.47	--	< 2.33	< 2.35	--	
Barium	mg/kg		16000	B Non Cancer	39.1	--	59.9	--	48.6	--	107	--	36.7	43.1	--	
Cadmium	mg/kg		2	Method A	< 0.573	--	< 0.557	--	< 0.600	--	< 0.619	--	< 0.582	< 0.588	--	
Chromium, total	mg/kg				23.7	--	31.7	--	21.2	--	34.5	--	20.4	24.4	--	
Lead	mg/kg		250	Method A	1.67	--	2.44	--	2.52	--	4.12	--	1.69	1.84	--	
Mercury	mg/kg		2	Method A	< 0.0229	--	< 0.0223	--	< 0.0240	--	< 0.0247	--	< 0.0233	< 0.0235	--	
Selenium	mg/kg		400	B Non Cancer	< 2.29	--	< 2.23	--	< 2.40	--	< 2.47	--	< 2.33	< 2.35	--	
Silver	mg/kg		400	B Non Cancer	< 1.15	--	< 1.11	--	< 1.20	--	< 1.24	--	< 1.16	< 1.18	--	

13800	Detected concentrations above the cleanup level are shaded yellow and bolded.
<i>< 0.0891</i>	Non-detect values above the cleanup level are shaded gray and italicized.
0.292	Detected concentrations at or above the method reporting limit are shown in bold.

Abbreviations and Symbols

" - " denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method reporting limit.
"DUP" denotes a field duplicate sample. Primary sample ID is provided beneath the duplicate sample ID.
Total cPAHs (HitsOnly) = Possible total cPAHs are based on the relative toxicity of each cPAH to benzo(a)pyrene and were calculated by multiplying the individual detected cPAH concentrations by a toxicity equivalency factor (TEF) and summing the adjusted concentrations.
Total cPAHs (HalfDL) = Possible total cPAHs are based on the relative toxicity of each cPAH to benzo(a)pyrene and were calculated by multiplying the individual detected cPAH concentrations by a toxicity equivalency factor (TEF) and summing the adjusted concentrations. If an individual cPAH was not detected, a value of one half the method reporting limit was used in the calculation.
Total PCBs (HitsOnly) = Total PCB concentration based on the sum of individual aroclor concentrations detected.
Total PCBs (HalfDL) = Total PCB concentration based on the sum of individual aroclor concentrations detected.
If an individual PCB aroclor was not detected, a value of one half the method reporting limit was used in the calculation.
bgs = below ground surface
ft = feet
mg/kg = milligrams per kilogram

Cleanup Levels (CULs)

Cleanup level values based on Model Toxics Control Act (MTCA) Method A values for unrestricted land use (Method A) based on Washington State Administrative Code (WAC) 173-340-740 Table 740-1.
Where MTCA Method A values are not available, the lowest of MTCA Method B values (B Cancer or B Non Cancer) from Cleanup Levels and Risk Calculation (CLARC) tables have been used (Accessed January 2017).

Methods

Samples analyzed for gasoline-range organics (GRO) using Northwest Total Petroleum Hydrocarbon (NWTPH)-Gx and diesel- and oil-range organics (DRO and ORO) using NWTPH-Dx (without silica gel cleanup).
Samples analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and Volatile Organic Compounds using EPA Method 8260.
Samples analyzed for metals using EPA Method 6010 except for mercury which was analyzed using EPA Method 7471.
Samples analyzed for Semivolatile Organic Compound using EPA Method 8270 with selective ion monitoring (SIM).
Samples analyzed for Polychlorinated Biphenyls using EPA Method 8082.

GROUNDWATER SAMPLE ANALYTICAL RESULTS
Midas Muffler Fauntleroy Site
Seattle, Washington

Location Date Sample ID Parent Sample ID Depth to water (btoc) Screen Interval (bgs) Note					B-01	B-05	B-05
					3/1/2017	3/1/2017	3/1/2017
					B-1	B-5	DUP-1-GW
							B-5
					Recon Well	Recon Well	Recon Well
					10-20 ft	10-20 ft	10-20 ft
Chemical	Unit	TEF	MTCA A Then Lowest B CUL				
Total Petroleum Hydrocarbons							
Gasoline-Range Organics	µg/L		800/1000	Method A	2440	6120	5520
Oil-Range Organics	µg/L		500	Method A	< 165	< 330	< 330
Diesel-Range Organics	µg/L		500	Method A	599	688	771
BTEX							
Benzene	µg/L		5	Method A	27.3	5.30	5.40
Toluene	µg/L		1000	Method A	4.09	3.13	3.18
Ethylbenzene	µg/L		700	Method A	109	44.0	43.4
Xylene, total	µg/L		1000	Method A	71.5	120	118
Semi Volatile Organic Compounds using SIM							
1-Methylnaphthalene	µg/L		1.51	B Cancer	32.0	37.7	40.2
2-Chloronaphthalene	µg/L		640	B Non Cancer	< 0.00647	< 0.00647	< 0.00647
2-Methylnaphthalene	µg/L		32	B Non Cancer	46.7	57.1	60.8
Acenaphthene	µg/L		960	B Non Cancer	0.0719	0.138	0.144
Acenaphthylene	µg/L				< 0.0120	0.0246 J	0.0256 J
Anthracene	µg/L		4800	B Non Cancer	< 0.0140	< 0.0140	< 0.0140
Benzo(a)anthracene	µg/L	0.1	0.120	B Cancer	< 0.00410	< 0.00410	< 0.00410
Benzo(a)pyrene	µg/L	1	0.1	Method A	< 0.0116	< 0.0116	< 0.0116
Benzo(b)Fluoranthene	µg/L	0.1	0.120	B Cancer	< 0.00212	< 0.00212	< 0.00212
Benzo(g,h,i)Perylene	µg/L				< 0.00227	< 0.00227	< 0.00227
Benzo(k)Fluoranthene	µg/L	0.1	1.20	B Cancer	< 0.0136	< 0.0136	< 0.0136
Chrysene	µg/L	0.01	12.0	B Cancer	< 0.0108	< 0.0108	< 0.0108
Dibenz(a,h)Anthracene	µg/L	0.1	0.0120	B Cancer	< 0.00396	< 0.00396	< 0.00396
Fluoranthene	µg/L		640	B Non Cancer	< 0.0157	< 0.0157	< 0.0157
Fluorene	µg/L		640	B Non Cancer	0.108	0.326	0.339
Indeno(1,2,3-c,d)Pyrene	µg/L	0.1	0.120	B Cancer	< 0.0148	< 0.0148	< 0.0148
Naphthalene	µg/L		160	Method A	5.24	16.5	18.3
Phenanthrene	µg/L				0.0229 J	0.162	0.160
Pyrene	µg/L		480	B Non Cancer	< 0.0117	< 0.0117	< 0.0117
Total cPAH (HalfDL)	µg/L		0.1	Method A	< 0.00778	< 0.00778	< 0.00778
Total cPAH (HitsOnly)	µg/L		0.1	Method A	< 0.00	< 0.00	< 0.00
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	µg/L		1.68	B Cancer	< 0.385	< 0.385	< 0.385
1,1,1-Trichloroethane	µg/L		200	Method A	< 0.319	< 0.319	< 0.319
1,1,2,2-Tetrachloroethane	µg/L		0.219	B Cancer	< 0.130	< 0.130	< 0.130
1,1,2-Trichloroethane	µg/L		0.768	B Cancer	< 0.383	< 0.383	< 0.383
1,1-Dichloroethane	µg/L		7.68	B Cancer	< 0.259	< 0.259	< 0.259
1,1-Dichloroethene	µg/L		400	B Non Cancer	< 0.398	< 0.398	< 0.398
1,1-Dichloropropene	µg/L				< 0.352	< 0.352	< 0.352
1,2,3-Trichlorobenzene	µg/L				< 0.230	< 0.230	< 0.230
1,2,3-Trichloropropane	µg/L		0.00146	B Cancer	< 0.807	< 0.807	< 0.807
1,2,3-Trimethylbenzene	µg/L				12.8	134	139
1,2,4-Trichlorobenzene	µg/L		1.51	B Cancer	< 0.355	< 0.355	< 0.355
1,2,4-Trimethylbenzene	µg/L				1.65	468	509
1,2-Dibromo-3-Chloropropane	µg/L		0.0547	B Cancer	< 1.33	< 1.33	< 1.33
1,2-Dibromoethane (EDB)	µg/L		0.01	Method A	< 0.381	< 0.381	< 0.381
1,2-Dichlorobenzene	µg/L		720	B Non Cancer	< 0.349	< 0.349	< 0.349
1,2-Dichloroethane (EDC)	µg/L		0.481	B Cancer	< 0.361	< 0.361	< 0.361
1,2-Dichloropropane	µg/L		1.22	B Cancer	< 0.306	< 0.306	< 0.306
1,3,5-Trimethylbenzene	µg/L		80	B Non Cancer	15.3	181	181
1,3-Dichlorobenzene	µg/L				< 0.220	< 0.220	< 0.220
1,3-Dichloropropane	µg/L				< 0.366	< 0.366	< 0.366
1,4-Dichlorobenzene	µg/L		8.10	B Cancer	< 0.274	< 0.274	< 0.274
2,2-Dichloropropane	µg/L				< 0.321	< 0.321	< 0.321
2-Chlorotoluene	µg/L		160	B Non Cancer	< 0.375	< 0.375	< 0.375
4-Chlorotoluene	µg/L				< 0.351	< 0.351	< 0.351
Acetone	µg/L		7200	B Non Cancer	< 10.0	< 10.0	< 10.0
Acrolein	µg/L		4	B Non Cancer	< 8.87	< 8.87	< 8.87
Acrylonitrile	µg/L		0.0810	B Cancer	< 1.87	< 1.87	< 1.87
Bromobenzene	µg/L				< 0.352	< 0.352	< 0.352
Bromodichloromethane	µg/L		0.706	B Cancer	< 0.380	< 0.380	< 0.380
Bromoform	µg/L		5.54	B Cancer	< 0.469	< 0.469	< 0.469
Bromomethane	µg/L		11.2	B Non Cancer	< 0.866	< 0.866	< 0.866

GROUNDWATER SAMPLE ANALYTICAL RESULTS
Midas Muffler Fauntleroy Site
Seattle, Washington

Location Date Sample ID Parent Sample ID Depth to water (btoc) Screen Interval (bgs) Note					B-01	B-05	B-05
					3/1/2017	3/1/2017	3/1/2017
					B-1	B-5	DUP-1-GW
							B-5
					Recon Well	Recon Well	Recon Well
					10-20 ft	10-20 ft	10-20 ft
Chemical	Unit	TEF	MTCA A Then Lowest B CUL				
Carbon Tetrachloride	µg/L		0.625	B Cancer	< 0.379	< 0.379	< 0.379
Chlorobenzene	µg/L		160	B Non Cancer	< 0.348	< 0.348	< 0.348
Chloroethane	µg/L				< 0.453	< 0.453	< 0.453
Chloroform	µg/L		1.41	B Cancer	7.06	< 0.324	< 0.324
Chloromethane	µg/L				< 0.276	< 0.276	< 0.276
cis-1,2-Dichloroethene	µg/L		16	B Non Cancer	< 0.260	< 0.260	< 0.260
cis-1,3-Dichloropropene	µg/L		0.438	B Cancer	< 0.418	< 0.418	< 0.418
Cymene (p-Isopropyltoluene)	µg/L				1.71	4.38	4.35
Dibromochloromethane	µg/L		0.521	B Cancer	< 0.327	< 0.327	< 0.327
Dibromomethane	µg/L		80	B Non Cancer	< 0.346	< 0.346	< 0.346
Dichlorodifluoromethane	µg/L		1600	B Non Cancer	< 0.551	< 0.551	< 0.551
Di-Isopropyl ether (DIPE)	µg/L				< 0.320	< 0.320	< 0.320
Freon 113	µg/L		240000	B Non Cancer	< 0.303	< 0.303	< 0.303
Hexachlorobutadiene	µg/L		0.561	B Cancer	< 0.256	< 0.256	< 0.256
Isopropylbenzene	µg/L		800	B Non Cancer	54.8	51.6	51.2
Methyl ethyl ketone (2-Butanone)	µg/L		4800	B Non Cancer	< 3.93	< 3.93	< 3.93
Methyl Isobutyl Ketone (MIBK)	µg/L		640	B Non Cancer	< 2.14	< 2.14	< 2.14
Methyl tert-Butyl ether	µg/L		20	Method A	< 0.367	< 0.367	< 0.367
Methylene Chloride	µg/L		5	Method A	< 1.00	< 1.00	< 1.00
Naphthalene	µg/L		160	Method A	5.46	21.2	21.8
n-Butylbenzene	µg/L		400	B Non Cancer	6.25	14.4	14.9
n-Propylbenzene	µg/L		800	B Non Cancer	155	190	187
Sec-Butylbenzene	µg/L		800	B Non Cancer	7.74	17.7	17.3
Styrene	µg/L		1600	B Non Cancer	< 0.307	< 0.307	< 0.307
Tert-Butylbenzene	µg/L		800	B Non Cancer	< 0.399	< 0.399	< 0.399
Tetrachloroethene (PCE)	µg/L		5	Method A	< 0.372	< 0.372	< 0.372
trans-1,2-Dichloroethene	µg/L		160	B Non Cancer	< 0.396	< 0.396	< 0.396
trans-1,3-Dichloropropene	µg/L		0.438	B Cancer	< 0.419	< 0.419	< 0.419
Trichloroethene (TCE)	µg/L		5	Method A	< 0.398	< 0.398	< 0.398
Trichlorofluoromethane	µg/L		2400	B Non Cancer	< 1.20	< 1.20	< 1.20
Vinyl Chloride	µg/L		0.2	Method A	< 0.259	< 0.259	< 0.259
Metals							
Arsenic, Dissolved	µg/L		5	Method A	< 6.50	< 6.50	< 6.50
Barium, Dissolved	µg/L		3200	B Non Cancer	39.9	42.1	41.7
Cadmium, Dissolved	µg/L		5	Method A	< 0.700	< 0.700	< 0.700
Chromium, Dissolved	µg/L		50	Method A	< 1.40	< 1.40	< 1.40
Lead, Dissolved	µg/L		15	Method A	< 1.90	< 1.90	< 1.90
Mercury, Dissolved	µg/L		2	Method A	< 0.0490	< 0.0490	< 0.0490
Selenium, Dissolved	µg/L		80	B Non Cancer	< 7.40	< 7.40	< 7.40
Silver, Dissolved	µg/L		80	B Non Cancer	< 2.80	< 2.80	< 2.80

2440	Detected concentrations above the cleanup level are shaded yellow and bolded.
< 0.807	Non-detect values above the cleanup level are shaded gray and italicized.
4.09	Detected concentrations at or above the method detection limit are shown in bold.

Abbreviations and Symbols

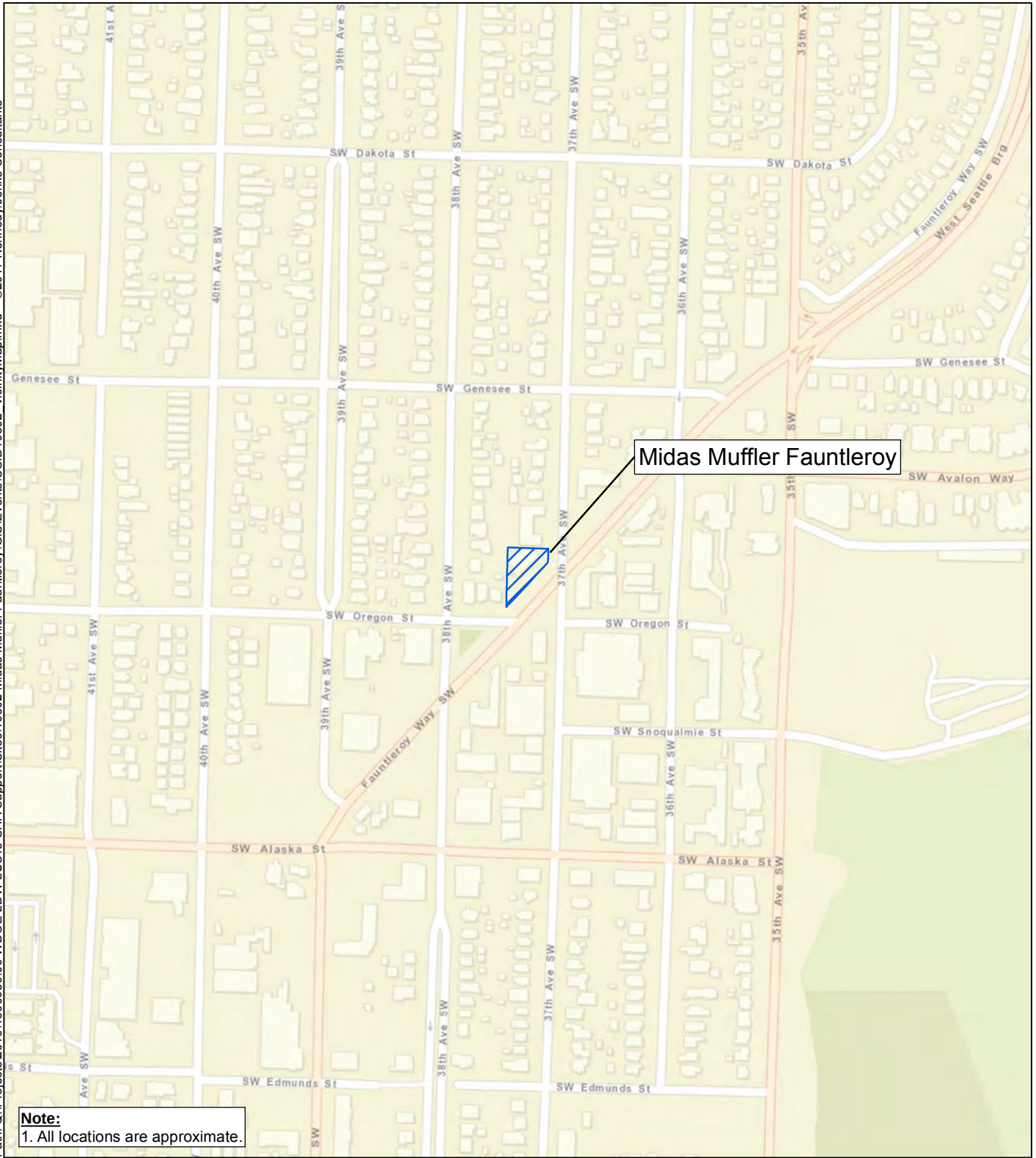
" - -" denotes not measured, not available, or not applicable.
" < " denotes not detected at or above the indicated method detection limit.
"DUP" denotes a field duplicate sample. Primary sample ID is provided beneath the duplicate sample ID.
"J" indicates an estimated concentration based on either the being less than the laboratory reporting limit or data validation findings.
Total cPAHs (HitsOnly) = Possible total cPAHs are based on the relative toxicity of each cPAH to benzo(a)pyrene and were calculated by multiplying the individual detected cPAH concentrations by a toxicity equivalency factor (TEF) and summing the adjusted concentrations.
Total cPAHs (HalfDL) = Possible total cPAHs are based on the relative toxicity of each cPAH to benzo(a)pyrene and were calculated by multiplying the individual detected cPAH concentrations by a toxicity equivalency factor (TEF) and summing the adjusted concentrations.
If an individual cPAH was not detected, a value of one half the method detection limit was used in the calculation.
Recon Well = Reconnaissance groundwater sample. The groundwater sample was collected directly from the soil boring from a temporary well with a screen interval as specified. A depth to water was not provided due to the temporary nature of the reconnaissance groundwater sample.
bgs = below ground surface
btoc = below top of casing
ft = feet
µg/L = micrograms per liter

Cleanup Levels
Cleanup level values based on Model Toxics Control Act (MTCA) Method A values for groundwater (Method A) based on Washington State Administrative Code (WAC) 173-340-740 Table 720-1. Where MTCA Method A values are not available, the lowest of MTCA Method B values (B Cancer or B Non Cancer) from Cleanup Levels and Risk Calculation (CLARC) tables have been used (Accessed January 2017).

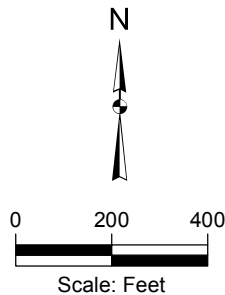
Methods
Samples analyzed for gasoline-range organics (GRO) using Northwest Total Petroleum Hydrocarbon (NWTPH)-Gx and diesel- and oil-range organics (DRO and ORO) using NWTPH-Dx (without silica gel cleanup).
Samples analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and Volatile Organic Compounds using EPA Method 8260.
Samples analyzed for metals using EPA Method 6010 except mercury which was analyzed by EPA Method 7470
Samples analyzed for Semivolatile Organic Compound using EPA Method 8270 with selective ion monitoring (SIM).

Figures

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\CSID10302_VicinityMap.mxd ©2017 Kennedy/Jenks Consultants



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap



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Midas Muffler Fauntleroy Site
Seattle, Washington

Vicinity Map

K/J 1696059*00

Figure 1



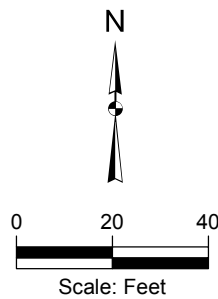
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- 2017 Soil Borings
- Cross Section Location
- ▭ Suspected Location of USTs
- ▭ Parcel Boundary

Notes:

1. All locations are approximate.



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Midas Muffler Fauntleroy Site
Seattle, Washington

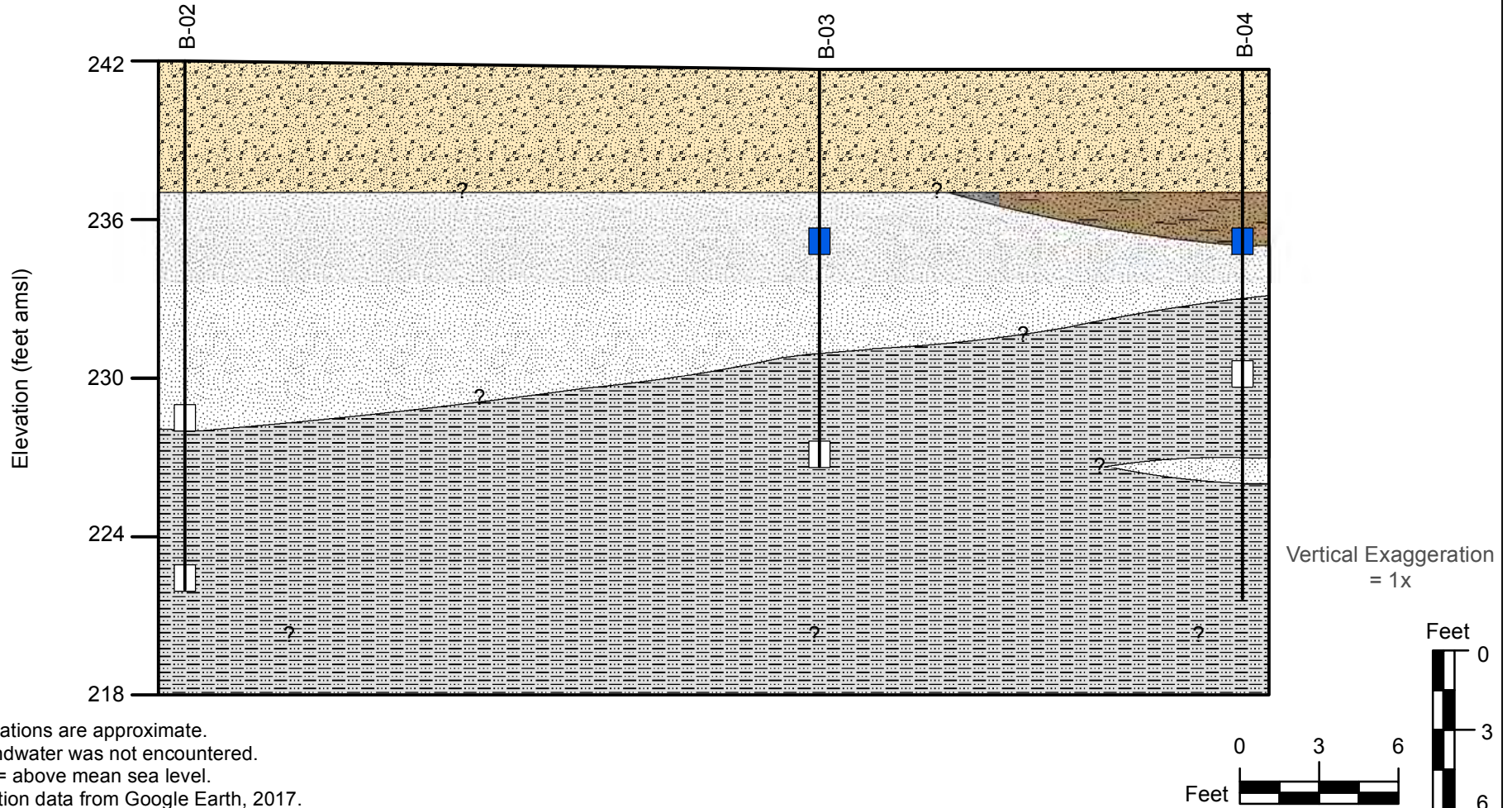
Site Map

K/J 1696059*00

Figure 2

A (Northwest)

A' (Southeast)



Notes:

1. All locations are approximate.
2. Groundwater was not encountered.
3. amsl = above mean sea level.
4. Elevation data from Google Earth, 2017.

Legend

- | | |
|--|--|
| | |
| | |

- B-02** Soil Boring with Sampling Interval
- GRO concentration in soil is less than MTCA Method A CUL (30 mg/kg with benzene) or not detected
- GRO concentration in soil is greater than MTCA Method A CUL (30 mg/kg with benzene)

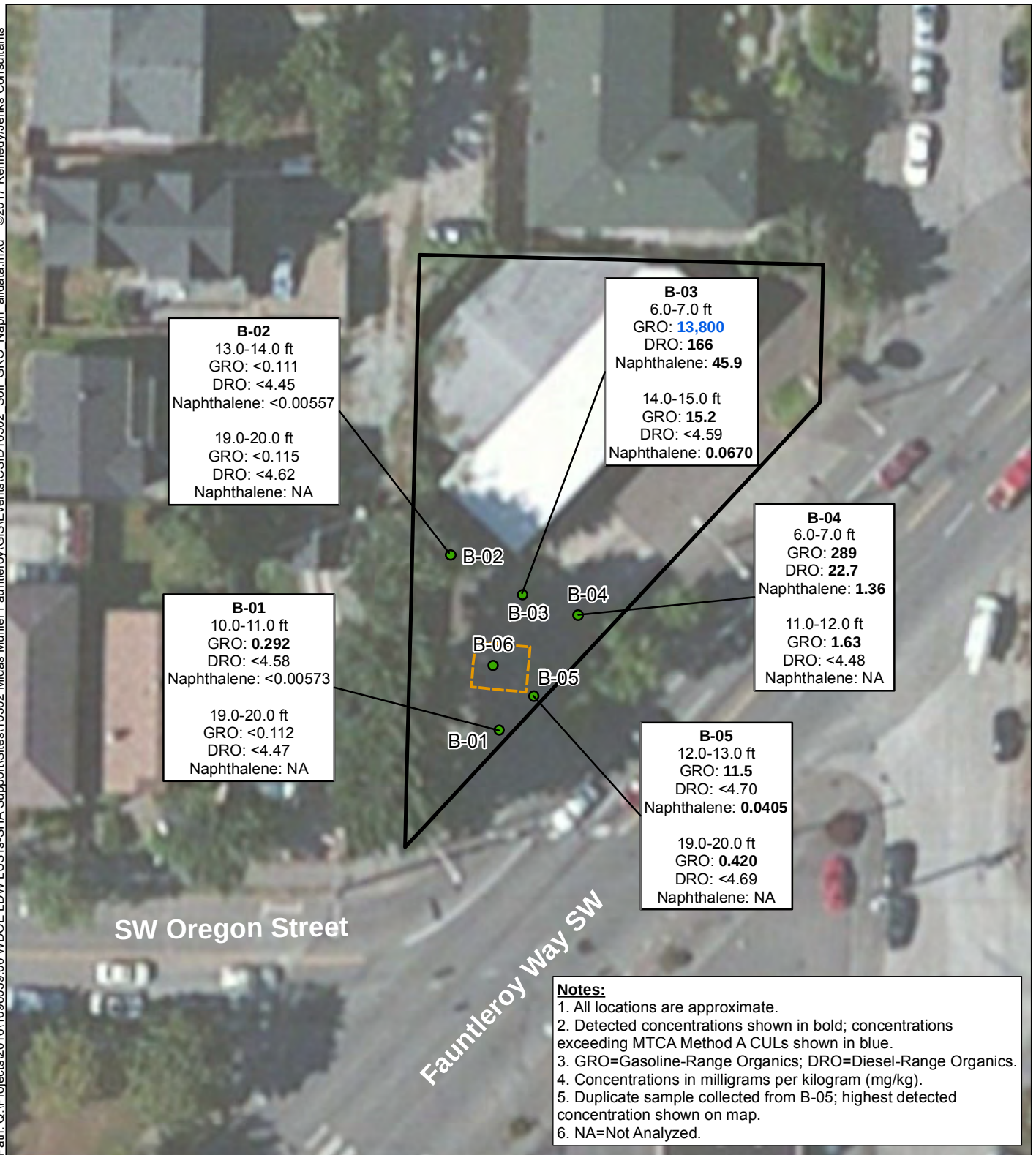
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Midas Muffler Fauntleroy Site
Seattle, Washington

**Interpretive Geologic Cross
Section A-A'**

K/J 1696059*00

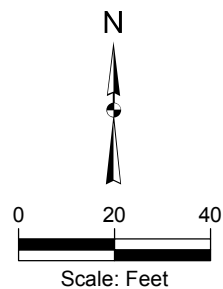
Figure 3



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

Legend

- 2017 Soil Borings
- Suspected Location of USTs
- Parcel Boundary



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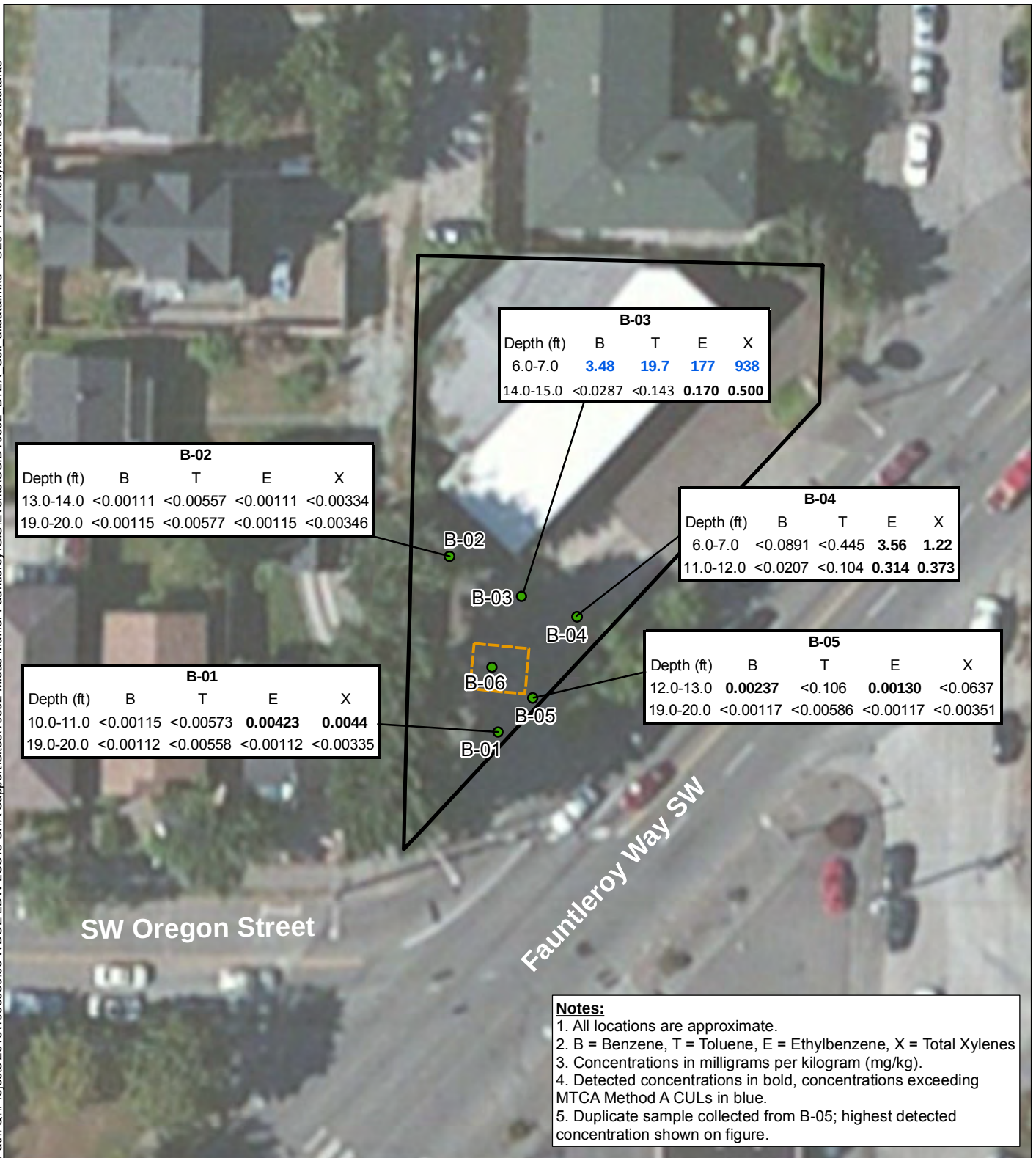
Midas Muffler Fauntleroy Site
Seattle, Washington

GRO, DRO, and Naphthalene Concentrations in Soil

K/J 1696059*00

Figure 4

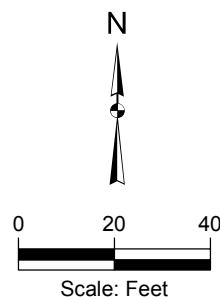
Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\CSID10302 BTEX Soil alldata.mxd ©2017 Kennedy/Jenks Consultants



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

Legend

- 2017 Soil Borings
- ▭ Suspected Location of USTs
- ▭ Parcel Boundary



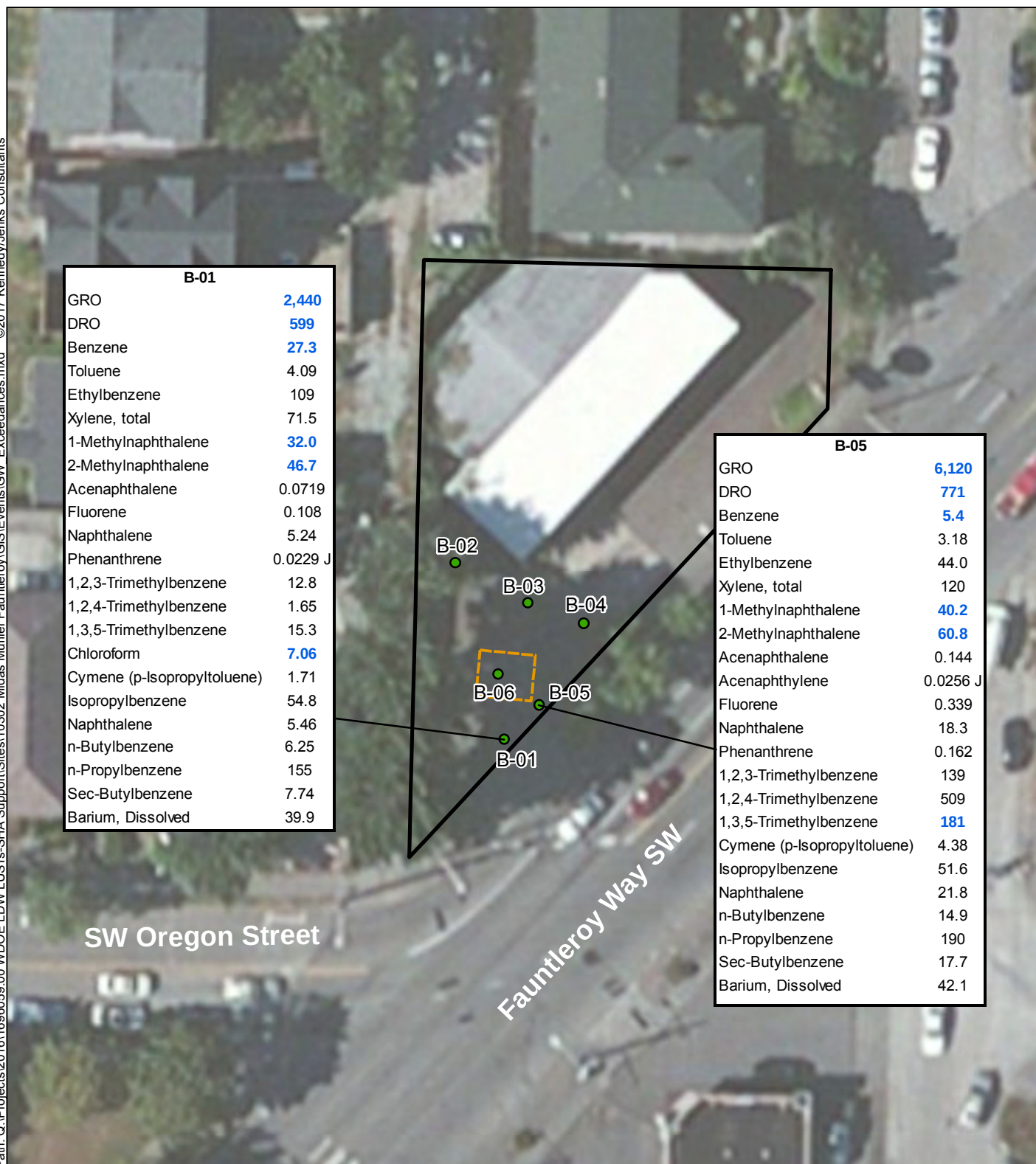
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Midas Muffler Fauntleroy Site
Seattle, Washington

BTEX Concentrations in Soil

K/J 1696059*00

Figure 5



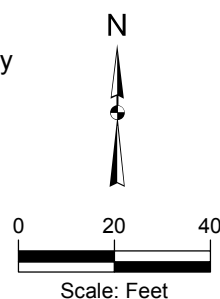
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- 2017 Soil Borings
- ▭ Parcel Boundary
- ▭ Suspected Location of USTs

Notes:

1. All locations are approximate.
3. GRO = Gasoline Range Organics; DRO = Diesel Range Organics
4. Duplicate sample collected from B-05; highest detected concentration shown on figure.
5. All concentrations in µg/l.
6. Concentrations exceeding MTCA Method A CULs shown in blue.



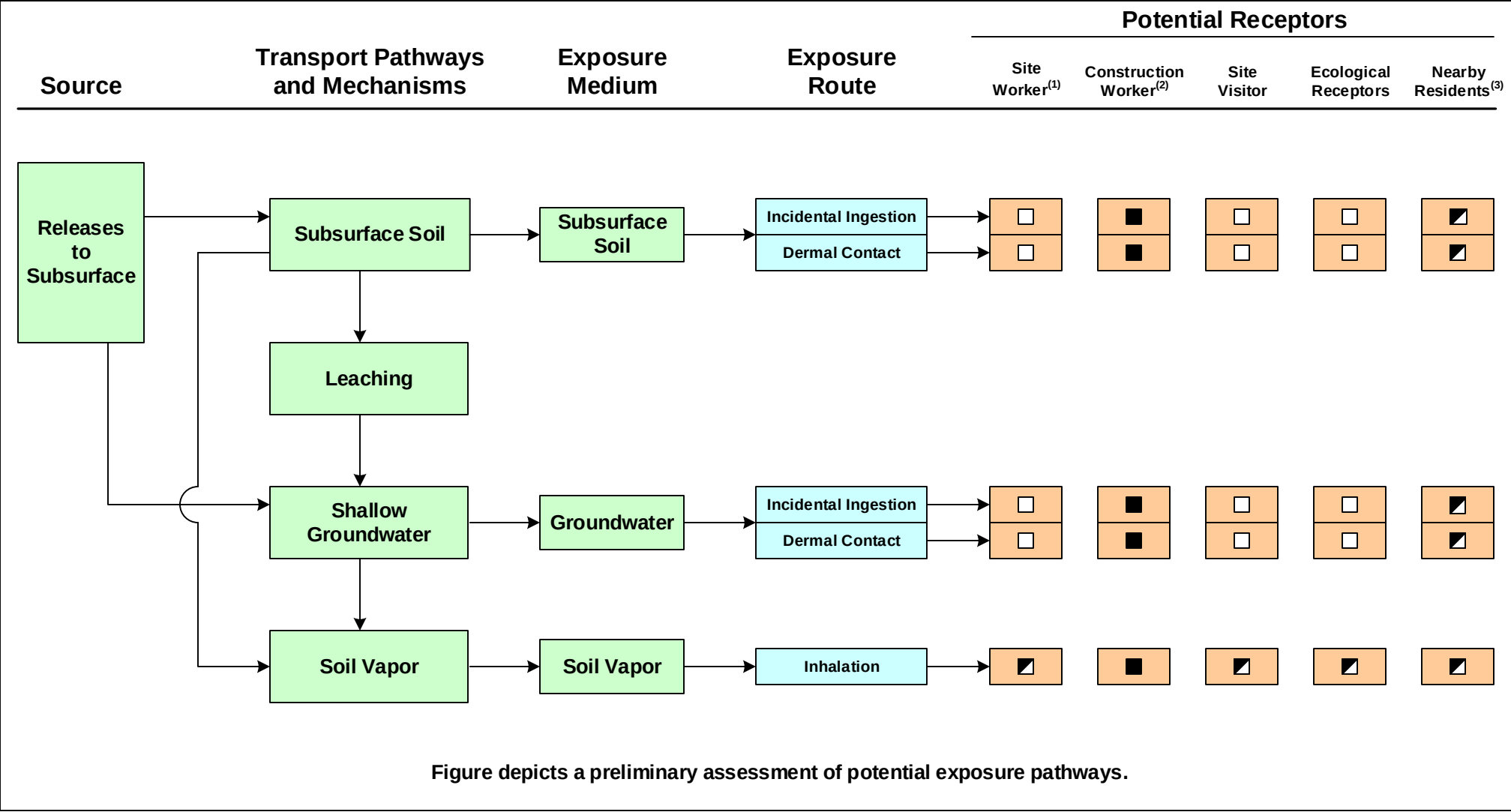
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Midas Muffler Fauntleroy Site
Seattle, Washington

Contaminant Concentrations in Groundwater

K/J 1696059*00

Figure 6



Legend:

- Complete exposure pathway.
- Incomplete exposure pathway.
- Potentially complete exposure pathway or insufficient information.

Notes:

- 1. On site service station employees.
- 2. On site construction and/or industrial workers performing invasive activities.
- 3. Assumes no contact with shallow groundwater as residences are connected to City water service.

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Midas Muffler Fauntleroy Site
Seattle, WA

Preliminary Conceptual Site Model

K/J 1696059*00

Figure 7

Appendix A

Historical Aerial Photographs

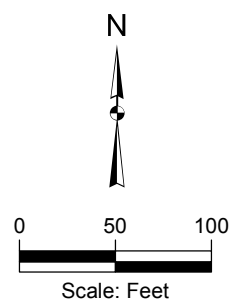


Legend

 Approximate Site Location

Note:

1. Aerial photo from King County, 1936.



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Midas Muffler Fauntleroy
Seattle, Washington

1936 Aerial Image

1696059*00
April 2017

Figure A-1

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\Aerial_1942.mxd ©2017 Kennedy/Jenks Consultants

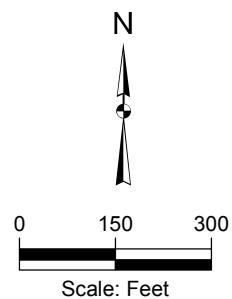


Legend

 Approximate Site Location

Note:

1. Aerial photo from United States Army Corps of Engineers, 1942.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1942 Aerial Image

1696059*00
April 2017

Figure A-2

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\Aerial_1952.mxd ©2017 Kennedy/Jenks Consultants

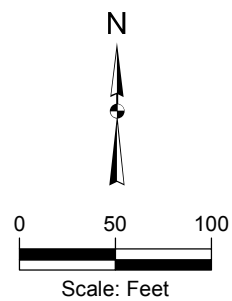


Legend

 Approximate Site Location

Note:

1. Aerial photo from Department of Natural Resources, 1952.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1952 Aerial Image

1696059*00
April 2017

Figure A-3

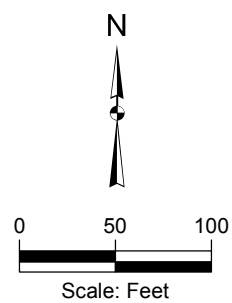


Legend

 Approximate Site Location

Note:

1. Aerial photo from Department of Natural Resources, 1959.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1959 Aerial Image

1696059*00
April 2017

Figure A-4

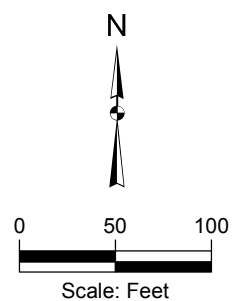


Legend

 Approximate Site Location

Note:

1. Aerial photo from Department of Natural Resources, 1965.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1965 Aerial Image

1696059*00
April 2017

Figure A-5

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\Aerial_1970.mxd ©2017 Kennedy/Jenks Consultants

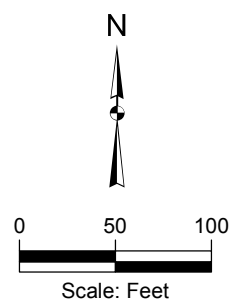


Legend

 Approximate Site Location

Note:

1. Aerial photo from Department of Natural Resources, 1970.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1970 Aerial Image

1696059*00
April 2017

Figure A-6

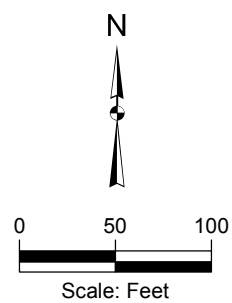


Legend

 Approximate Site Location

Note:

1. Aerial photo from Department of Natural Resources, 1978.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1978 Aerial Image

1696059*00
April 2017

Figure A-7

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\Aerial_1985.mxd ©2017 Kennedy/Jenks Consultants

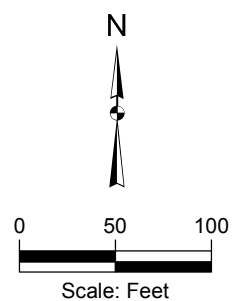


Legend

 Approximate Site Location

Note:

1. Aerial photo from the Department of Natural Resources, 1985.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1985 Aerial Image

1696059*00
April 2017

Figure A-8

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\Aerial_1990.mxd ©2017 Kennedy/Jenks Consultants

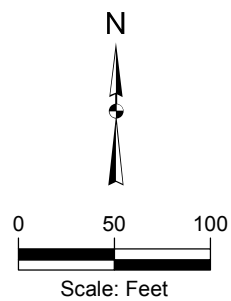


Legend

 Approximate Site Location

Note:

1. Aerial photo from the United States Geological Survey, 1990.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1990 Aerial Image

1696059*00
April 2017

Figure A-9

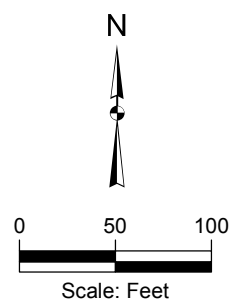


Legend

 Approximate Site

Note:

1. Aerial photo from the Department of Natural Resources, 1992.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

1992 Aerial Image

1696059*00
April 2017

Figure A-10

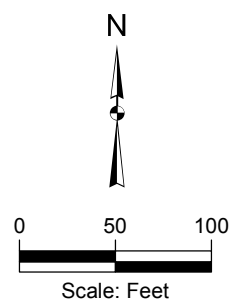


Legend

 Approximate Site Location

Note:

1. Aerial photo from the United States Geological Survey, 2002.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

2002 Aerial Image

1696059*00
April 2017

Figure A-11

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\Sites\10302 Midas Muffler Fauntleroy\GIS\Events\Aerial 2011.mxd ©2017 Kennedy/Jenks Consultants

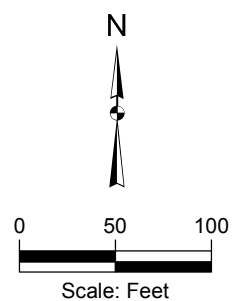


Legend

 Approximate Site Location

Note:

1. Aerial photo from Google Earth, 2011.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

2011 Aerial Image

1696059*00
April 2017

Figure A-12

Appendix B

Title Search Records

METROSCAN

PROPERTY PROFILE

Parcel ID :095200 4790	Bldg :1	Total :\$1,831,700
Owner :Midas Properties Inc		Land :\$1,830,700
CoOwner :		Struct :\$1,000
Site Addr :4457 Fauntleroy Way SW Seattle 98126		%Imprvd :
Mail Addr :PO Box 52427 Atlanta Ga 30355		Levy Cd :0010
Sale Date :07/20/1989	Doc# :133	2016 Tax :\$18,673.15
SalePrice :\$134,928	Deed :Quit Claim	Phone :
Loan Amt :	Type :	Vol :3 Pg:19
Use Code :216 IND,SERVICE BLDG		MapGrid :
Zoning :NC365		NbrhdCd :045040
Prop Desc :Midas Muffler Shop		-- CENSUS --
Legal :BOSTON COMPANYS PLAT OF W S & VAC		Tract :98.00
:POR ST ADJ LESS ST PLAT BLOCK: 37		Block :3
:PLAT LOT: 18 THRU 23		QSTR :SE 14 24N 03E

BUILDING INFO

1st Floor SF :	Year Built :1965
2nd Floor SF :	Eff Year :1990
3rd Floor SF :	Bldg Matl :Wood Frame
Half Floor SF :	Bldg Cond :
AboveGrnd SF :	Bldg Grade :Avg\good
Bsmnt Finished :	Interior :
Bsmnt Total SF :	Insulation :
Building SqFt :4,050	HeatSource :
DeckSqFt :	Heat Type :Space Heater
Garage Type :	Air Method :
Attached GrgSF :	Wtr Source :Water District
Bsmnt ParkingSF :	Sewer Type :Public
Basement Type :	Purpose :
Basement Grade :	

LAND INFORMATION

St Access :Public	Lot SqFt :11,442	St Surface :Paved	Soundproof :
Beach Acc :	Lot Acres :.26	Elevator :	Storage :
WtrFront :	Lot Shape :Restricted	Sprinklers :No	Security :
WtrFntLoc :	Tde/Uplnd :	Golf Adj :	
WtrFrntFT :	TopoProbd :		

OTHER INFORMATION

TRANSFER HISTORY

OWNERS	DATE	/DOC #	PRICE	DEED	LOAN	TYPE
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:
:	:	:	:	:	:	:

Site 214

QUITCLAIM DEED

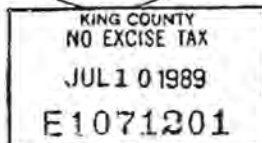
I C LEASING, INC., a Delaware corporation, having its principal place of business at 111 East Wacker Drive, Chicago, Illinois, for and in consideration of One Hundred Thirty Four Thousand Nine Hundred Twenty Six and 88/100ths Dollars (\$ 134,926.88) does hereby remise, release, and forever quitclaim to MIDAS PROPERTIES, INC., a New York corporation, having its principal place of business at 225 North Michigan Avenue Chicago, Illinois, all of I C Leasing, Inc.'s right, title and interest to and in the following described real property in the City of Seattle, County of King, State of Washington, to wit:

(LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBIT A)
Prior Reference: #N3672-3
893899
8608220107

IN WITNESS WHEREOF, I C Leasing, Inc. has caused this instrument to be signed by its authorized corporate officers and its corporate seal affixed hereto this 30th day of January, 1989.

ATTEST:

T. E. Williams III,
Assistant Secretary



I C LEASING, INC.

By: G. C. Keiser
G. C. Keiser,
Vice President

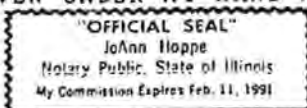
WITNESSES:

Nancy Kinler
Nancy Kinler
JoAnn Hoppe
JoAnn Hoppe

STATE OF ILLINOIS)
COUNTY OF COOK) SS:

Before me appeared G. C. Keiser, and T. E. Williams III, personally known to me to be the Vice President and Assistant Secretary, respectively, of I C Leasing, Inc., a Delaware corporation, and severally acknowledged that as such Officers, they executed and delivered the foregoing instrument on behalf of said corporation and caused the corporate seal to be affixed thereto, pursuant to authority given by the Board of Directors of said corporation as their free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND SEAL this 30th day of January, 1989.



JoAnn Hoppe
JoAnn Hoppe, NOTARY PUBLIC

This instrument prepared by:
Return recorded deed to:

Thomas E. Williams III, Esq.
Midas Realty Corporation
225 North Michigan Avenue
Chicago, Illinois 60601

Send future tax bills to:

Midas Properties, Inc.
225 North Michigan Avenue
Chicago, Illinois 60601
Attn: Real Estate Tax Dept.

39/07/20 #0133 D
RECD F 6.00
CRSHSL *****6.00
55

8907200133

LEGAL DESCRIPTION

4457 Fauntleroy
West Seattle, Washington
(King County)

8907200133

Lots 18, 19, 20, 21, 22 and 23, Block 37, Boston Co.'s Plat of West Seattle according to the plat recorded in Volume 3 of Plats, Page 19, in King County, Washington, except that portion thereof condemned in King County Superior Court Case No. 93059 for the extension of Fauntleroy Avenue as provided by Ordinance No. 29063 of the City of Seattle, and that portion of Fauntleroy Avenue as established by Ordinance No. 29063 lying between the South Line of Lot 23, Block 37, Boston Co.'s plat of West Seattle, and a line 13.38 feet South of and Parallel therewith, and between the production South of the east line of the alley in said block and the production Southwesterly of the Northwesterly line of Fauntleroy Avenue as established by said ordinance.

JUL 20 8 55 AM '89
BY THE DIVISION OF
RECORDS & CITY CLERKS
KING COUNTY

RECEIVED THIS DAY

EXHIBIT A

KING COUNTY
NO EXCISE TAX
AUG 21 1986
893899

QUITCLAIM DEED

MIDAS REALTY CORPORATION, a Delaware Corporation having its principal place of business at 225 North Michigan Avenue, Chicago, Illinois, for and in consideration of One Dollar and No Cents (\$1.00) does hereby remise, release, and forever quitclaim to I.C. LEASING, INC., a Delaware corporation having its principal place of business at 111 E. Wacker Drive, Chicago, Illinois, all of Midas Realty Corporation's right, title and interest to and in the following described real property in King County, State of Washington, to wit:
This conveyance is between related corporate entities and is not subject to any real estate transfer tax.

(LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBIT A)

The actual consideration for this indenture is One Dollar and No Cents (\$1.00).

IN WITNESS WHEREOF, Midas Realty Corporation has caused this instrument to be signed by its authorized corporate officers and its corporate seal affixed hereto this 16th day of May, 1986.

ATTEST

R. P. Brandwein,
Assistant Secretary

MIDAS REALTY CORPORATION

By: John A. Warzecha
John A. Warzecha,
Vice President

James J. Kenny, President

Nancy B. Winsler, Witness

STATE OF ILLINOIS)
COUNTY OF COOK) SS:

Before me appeared John A. Warzecha, residing at 145 W. C. Bailey Road, Naperville, Illinois 60565 and R. P. Brandwein, residing at 145 Linden Avenue, Glenview, Illinois 60022, personally known to me to be the Vice President and Assistant Secretary, respectively, of Midas Realty Corporation, a Delaware corporation, and severally acknowledged that as such Officers, they executed and delivered the foregoing instrument on behalf of said corporation and caused the corporate seal to be affixed thereto, pursuant to authority given by the Board of Directors of said corporation as their free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.

GIVEN UNDER MY HAND AND SEAL this 16th day of May, 1986.

My commission expires:
December 12, 1989

Marianne Orso SEAL
Marianne Orso, Notary Public
Notary Public, State of Illinois
My Commission Expires Dec. 12, 1989

Received for Record _____, 1986 at _____ o'clock ____ m. in the land records of _____ County, State of _____, and recorded in (Volume) (Book) _____, Page _____ of said records in said County and State.

Please and recorded deed to:
This instrument prepared by:
James J. Kenny, Esq.
Midas Realty Corporation
225 North Michigan Avenue
Chicago, Illinois 60601

Please and future tax bills to:
After recording return to:
I.C. Leasing, Inc.
c/o Midas Realty Corporation
225 North Michigan Avenue
Chicago, Illinois 60601
Attn: Real Estate Tax Dept.

FILED BY CHICAGO TITLE INSURANCE CO.

8608220107

REF. # 113672-3

LEGAL DESCRIPTION

4457 Fauntleroy
West Seattle, Washington
(King County)

8608220107

Lots 18, 19, 20, 21, 22 and 23, Block 37, Boston Co.'s Plat of West Seattle according to the plat recorded in Volume 3 of Plats, Page 19, in King County, Washington, except that portion thereof condemned in King County Superior Court Case No. 93059 for the extension of Fauntleroy Avenue as provided by Ordinance No. 29063 of the City of Seattle, and that portion of Fauntleroy Avenue as established by Ordinance No. 29063 lying between the South Line of Lot 23, Block 37, Boston Co.'s plat of West Seattle, and a line 13.38 feet South of and Parallel therewith, and between the production South of the east line of the alley in said block and the production Southwesterly of the Northwesterly line of Fauntleroy Avenue as established by said ordinance.

EXHIBIT A

Mail to: Midas International
225 N Michigan Ave
Chicago, Illinois 60601
attn: James J. Kenny.

8608220107

8608220107

DEC-15-76 00041 7612150649 - A 15

7-14089 490
6050

LIMITED WARRANTY DEED

THIS IS A DEED dated August 30, 1976, by SHELL OIL COMPANY, a Delaware corporation with offices at 400 108th Avenue Northeast in Bellevue, Washington 98004 (herein called "Grantor") to MIDAS REALTY CORPORATION at 222 South Riverside Plaza in Chicago, Illinois 60606 (herein called "Grantee"):

GRANTOR, for good and valuable consideration received hereby grants and conveys to Grantee the following described Premises situated in Seattle, County of King, State of Washington:

Lots 18, 19, 20, 21, 22 and 23, Block 37, Boston Co.'s Plat of West Seattle according to the plat recorded in Volume 3 of Plats, Page 19, in King County, Washington, except that portion thereof condemned in King County Superior Court Cause No. 93059 for the extension of Fauntleroy Avenue as provided by Ordinance No. 29063 of the City of Seattle, and that portion of Fauntleroy Avenue as established by Ordinance No. 29063, lying between the South Line of Lot 23, Block 37, Boston Co.'s plat of West Seattle, and a line 13.38 feet South of and Parallel therewith, and between the production South of the east line of the alley in said block and the production Southwesterly of the Northwesterly line of Fauntleroy Avenue as established by said ordinance.

together with all rights, privileges and appurtenances thereto and all buildings and land improvements thereon, but subject to all easements, rights-of-way, reservations, restrictions, and encumbrances of record, to any existing tenancies, to all zoning laws and ordinances, and to any state of facts an accurate survey or inspection of the premises would show;

TO HAVE AND TO HOLD the same unto Grantee and Grantee's successors, and assigns forever.

SUBJECT to the foregoing and to the liens of all taxes and assessments for the year 1976 and subsequent years, Grantor covenants with Grantee that Grantor will warrant and defend the title to the premises against the lawful claims of all persons claiming by, through or under Grantor.

GRANTEE covenants as part of the consideration for this conveyance, that, during the period of ten (10) years after the date of this Deed, no petroleum products for motor vehicles shall be advertised, stored, sold or distributed on the premises hereby conveyed, or any part thereof but such products may be stored and used on the premises for own consumption by the occupant thereof. Grantor's waiver of any breach of this covenant shall not constitute a waiver of this covenant or of any subsequent breach hereof. This covenant shall run with the land, shall bind Grantee's successors and assigns, and shall inure to the benefit of Grantor's successors and assigns.

EXECUTED by Grantor as of the date first herein specified.

WITNESSES:

[Signature]
[Signature]

SHELL OIL COMPANY

[Signature]
R. F. DE BESSE, MANAGER
REAL ESTATE ADMINISTRATION
CORPORATE REAL ESTATE

Attest [Signature]
Assistant Secretary

STATE OF Washington
DEPT. OF REVENUE
Conveyance Tax
\$ 60.50
RD. 1084X

SALES TAX PAID
AFF. NO. E384054
DEC 15 1976
KING COUNTY
COMPTROLLER

STATE OF TEXAS
COUNTY OF HARRIS

ss.

On this 30th day of August, 1976, before me,

Cindy D. Caulking, a notary public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared

R. F. DeBesse, known to me to be the Manager Real Estate Administration of Shell Oil Company, the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same.

In witness whereof, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

My Commission expires:
March 2, 1978

Cindy D. Caulking
CINDY D. CAULKING

Notary Public in and for Harris County, Texas
My Commission Expires March 2, 1978
Bonded by Alexander Lovett, Lawyers Surety Corp.

RECORDED
INDEXED
AUG 31 1976
HARRIS COUNTY CLERK

DEED FOR ESTATE OF
PIONEER OIL & GAS CO.
718 SECOND AVE. S.W.
BATTLE WASHINGTON 98004

5314852

**LAWYERS
TITLE INSURANCE
CORPORATION**
SEATTLE, WASHINGTON

Filed for Record at Request of

FOR RECORD AT REQUEST OF
SEATTLE TITLE COMPANY
701 2ND AVE.
SEATTLE 4, WASHINGTON

THIS SPACE RESERVED FOR RECORDER'S USE

NAME Washington Title Ins. Co.
ADDRESS 719-2 Ave
CITY AND STATE Seattle, 4, Wn.



B-626062



Statutory Warranty Deed



THE GRANTOR S, J. S. WHITING and MILDRED WHITING, his wife,
for and in consideration of TEN DOLLARS (\$10.00) and other valuable consideration
in hand paid, conveys and warrants to SHELL OIL COMPANY,
the following described real estate, situated in the County of King, State of
Washington:

Lots 18, 19, 20, 21, 22 and 23, block 37, Boston Co's Plat of West
Seattle, according to plat recorded in volume 3 of plats, page 19,
in King County, Washington, EXCEPT that portion thereof condemned in
King County Superior Court Cause No. 93059 for the extension of Fauntleroy
Avenue as provided by Ordinance No. 29063 of the City of Seattle; and
that portion of Fauntleroy Avenue as established by Ordinance No. 29063,
lying between the south line of lot 23, block 37, Boston Co.'s Plat of
West Seattle, and a line 13.38 feet south of and parallel therewith, and
between the production south of the east line of the alley in said block
and the production southwesterly of the northwesterly line of Fauntleroy
Avenue as established by said Ordinance,
SUBJECT only to easements, rights, restrictions and reservations of
record.

B-626062-2-14

61⁰⁰ State
67¹⁰ Federal

**SALES TAX LIEN
PAID**

AUG 7 1961

Dated this

31st day of

July,

1961

before me, the

KING COUNTY TREASURER

E434235

J. S. Whiting (SEAL)

Mildred Whiting (SEAL)

STATE OF WASHINGTON

County of KING

On this 31st day of

July,

1961

, before me, the

undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally
appeared J. S. WHITING and MILDRED WHITING, his wife,

to me known to be the individuals described in and who executed the foregoing instrument, and acknowledged
to me that they signed and sealed this said instrument as their free and voluntary act and deed for the
uses and purposes therein mentioned.

GIVEN under my hand and official seal this 31st day of July, 1961.

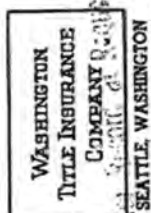
Said R. D. [Signature]
Notary Public in and for the State of Washington,
residing at Seattle

500492

Statutory Warranty Deed

RECORDED
VOL.....
PAGE..... REQUEST OF

1959 MAR 5 AM 9 42

ROBERT A. MORRIS AUDITOR
KING COUNTY WASH.
DEPUTY
 Note: Mail to 500492
 Address: 4400 1st Ave. S.
 Seattle, Wash.

Send Tax Statement to

FORM L58

Statutory Warranty Deed

THE GRANTOR ROBERT E. BLAKEFIELD

for and in consideration of Ten dollars, and other consideration of value,
 in hand paid, conveys and warrants to J. S. WHITING and MILDRED WHITING, his wife,
 the following described real estate, situated in the County of King, State of
 Washington:

Lots 18 and 19, Block 37, Doston Co's Plat
 of West Seattle, according to plat thereof
 recorded in Volume 3 of Plats, Page 19, in
 King County, Washington. EXCEPT that portion
 thereof condemned in King County Superior
 Court Cause No. 93059 for the extension of
 Fauntleroy Avenue as provided by Ordinance
 No. 29063 of the City of Seattle.

SUBJECT TO rights of the City of Seattle
 under judgment on verdicts entered March 11,
 1914 in King County Superior Court Cause No.
 93059 to damage said premises by changing and
 establishing street grades as provided by
 Ordinance No. 29063 of said City.

 TAX LIEN
 PAID

MAR-5-1959

A. A. IKENBERRY
KING COUNTY TREASURER

A handwritten signature over a printed name and title.

Dated this

3rd day of March, 1959

Robert E. Blakefield (SEAL)

(SEAL)

 STATE OF WASHINGTON, } ss.
 County of KING

On this day personally appeared before me ROBERT E. BLAKEFIELD

to me known to be the individual described in and who executed the within and foregoing instrument, and
 acknowledged that he signed the same as his free and voluntary act and deed, for the
 uses and purposes therein mentioned.

GIVEN under my hand and official seal this

3rd day of March, 1959

 A handwritten signature of the Notary Public.

Notary Public in and for the State of Washington,
 residing at Seattle

MAR 5 1959

1
D Jul 23-51 (NON TAXABLE #E 9191)
Jun 27-51 \$1.00 --- ---

4155215

Mary Louise McMinn Wheir fmly Mary Louise McMinn
to Thomas B McMinn and Hannah McMinn h&w
Fp cy and qc to sp the fol des re sit in kcw

Lots 16 to 24 incl, blk 3, Holbrook and Clark's Add to West Seattle
in SWly of Glenway
Lots 13 and 14 blk 5, Holbrook and Clark's Add to West Seattle;
Lots 16 and 17, blk 3, por, in SWly of Glenway;
Lots 20 to 23 incl blk 37, Boston Co's Plat to CofS
These pties desc above incl bldgs thon tgw all pora pty incl in
bldgs.

Mary Louise McMinn Wheir

kcw Jun 27-51 by Mary Louise McMinn Wheir fmly Mary Louise McMinn
bef Vera B Smith np for wn res at S (ns eb 14-53)

M1 Floyd T Colvin 216-719 2nd Ave Bldg

sp

1
4155216

Let 14 Blk 92 Gilman Park.

In accordance to the provisions of Ord No. 71125 of The City of Seattle, said City has caused this instr to be executed by its Mayor and City Comptroller thru duly authorized and has caused the original to be returned to the City of Seattle.

(original) By Wm. F. Devin, Mayor
George A. Grant, Dep City Comptroller
now Jul 19-46 by Wm. F. Devin and George A. Grant, Mayor & Dep City Comptroller, respectively, of said corp (ref) of P. L. Collier for Wareset 8 (no Sup 25-49) Mite E J O'Keefe, 114 W 59th St, City?

D Apr 21-47

3678719

Aug 9-46 \$1.

Mellie K. Hamilton, in her sep right of 3-15, now to Mildred Blakefield of her

The fee due to be paid in the future, at her own:

Lots 18 and 19 Blk 37 of Boston Co's. Dist of East Seattle, lease per taken for street

Mellie K. Hamilton

now Aug 9-46 by Mellie K. Hamilton, in her sep right, her Robert Terhune for Wareset 8 (no Oct 27-47) Mite Cosgrove, Terhune & Schlemstein?? 2002 Smith Ter, City

D Apr 21-47

3678720

Apr 1-47

\$10.07.701: x 4. 47. a x

Samuel E. Long & W. Frances Long, her

to Donald E. Potter & Billie J. Potter, her

The fee due to be paid the future, at her own:

Lot 17 Blk 41 Lake Ridge, Division the road to plat that record in vol 32 of plats pg 37, recd of said county.

Also known as 10821 Crestwood Drive.

Samuel E. Long

W. Frances Long

now Apr 1-47 by Samuel E. Long & W. Frances Long, her, of George W. Danlop for Wareset 8 (no Sep 7-48) Mite Donald E. Potter, 10821 Crestwood Drv, City

via

22 Apr 8 46

Apr 5 46

Citizens Federal Savings & Loan Association of Seattle

Re William McYoung and Jennie McYoung def

3556916

2019

156

Sp took full part credit of its assets Oct 16 40, mbyas for \$2500 and ran inhouse and ran Nov 7 40 file 3130517, inbook 1658 up 267 inhouse with debt mbyas

(corp)

Citizens Federal Savings and Loan Association

RE Cushing president

GW Howell secy

now Apr 5 46 by E E Cushing and GW Howell presented copy of ser (of) of Roland Wilson ap' Hurots (N 50) fld byas

2 Apr 8 46

Apr 5 46 \$10. 317.60 in house \$15.00 at

J Pat Scott and Boss Scott def

WTS Whiting and Miller d' sitting, def

3556917

2457
107

Sp eye and was to apply for to situate

lots 20, 21, 22, and 23, blk 37, Boston Co's. Platon West Seattle, vol 3 sl: 409 19 received, ex perat of cond modia he upr Court Cases No 93069 for the reason of Penalties give as vd byord no 29063 of these

Sub highlighting these under just over dixits entd in the "upr" court Cause No 93069 to change rd run by changing and establishing grades grading and grading, as vd byord no 29063 ofsd city

J Pat Scott; Boss Scott

now Apr 5 46 by J Pat Scott and Boss Scott nuf of JB George ap' nres (N 50) 8 47) al ap 4500 call ave fld byas

2 Apr 8 46

Apr 3 46 \$10 and two \$8.30 in house \$8.30

James J Harrison and Mary Harrison, def

Wanda Michaelson and Mary S Michaelson, def

3556918

2454
108

Sp eye and was to apply for to situate

lots 13 and 14, blk 6, Ayer & O'Hara's Add to these, vol 3 platng 212, received on

James J Harrison; Mary S Harrison

now Apr 5 46 by James J Harrison and Mary S Harrison, nuf of John S Foley (N 50) 17 48) al James Barker Inc. Higdon bldg fld by

3556919

Whereas sp are now the owners of ml pty and have sue to the rights of the lesser and of lease and whereas the parties have not agreed to a cancellation of ml lease their ml lease is hereby cancelled and terminated as of the 1st day of Jan and all rights and liabilities of both parties under ml lease hereby ceased.
Sp is to leave all lighting fixture except the two fluorescent fixture in the windows and is to vac the prem and re all store fixture and merchandise therefrom immediately

Kenneth E. Scholes
J. Pat Scott
Bess Scott

Wit Jan 9 46 by Kenneth E. Scholes and J. Pat Scott and Bess Scott
Wit of J. B. George sp for the sp rec at 2 ns Jan 9 47 (ml sp 4500
Calif Ave city)

Cancellation of Lease Jan 12 46

3531477

Jan 10 46 \$250

J. Pat Scott and Bess Scott, m
and Kenneth E. Scholes

Whereas a cert lease was entered into Jan 27 45 between Thomas B. McKinn
lessor and sp as lessee leasing the fl des pty sit now

The prem at 4477 Fairview Ave, Seattle Wa lag des as a ptn of Lots
20, 21, 22 and 23, blk 17, Boston Co's Plat of West Seattle accord to
plat thref rec vol 3 plate pg 19 rec of sd co except ptn cond in KC
Sup Crs Cause No 93397 for the extension of Fairview Ave as prev by
Crt No 30063 of the Crs

whereas sp are now the owners of ml pty and have sue to the rights of the
lesser and of lease and whereas the parties have not agreed to a
cancellation of ml lease their ml lease is hereby cancelled and terminated
as of the 1st day of Jan and all rights and liabilities of both parties under
ml lease is hereby ceased.
(bal lns sig and ack on as 476 abv)

Cont Jan 12 46

3531478

Jan 3 46

Kille Dr Thomas, a wid

to Thomas V. Timmason and Marguerite E. Thompson, lms
Sp agrees to sell and sp agrees to pay the fl des re sit now

N 10 ft of Lot 13 and all of Lot 14 blk 2, Apler's Div of Green Lake
Add to the Crs record to plat thref rec vol 5 plate pg 8 rec of m

Sub to notice of intent for side sewer 4 ft in width over and across
ml ptn and other ptn and blk 12 29 and rec Vol 1) 29 vol 1441 Sup
474 and fl No 312366 rec of m

The sp is \$10,950 of vol 312366 has been p. receipt a. x and the bal to
be pd in 60 or more m by m of Feb 10 46 and a like amt of m by m of
m of Feb 10 46 and every m thereafter until the full bal
of \$10,950 is paid in full. The sp of \$10,950 has been pd.
The m of \$10,950 is to be paid in full, let on credit of m
and the bal on credit of m.
Wit Jan 2 46 at 777 4th St, city.

Cancellation of Lease Jan 12 46

3531476

Jan 10 46 \$250

J. Pat Scott and Bens Scott, Mr

Kenneth E. Scholes

Where a short lease was entered into on Oct 7 44 between Thomas B. McKinnon
lessor and sp as lessee regarding the fl den pty sit in new

The prem at 4479 Fauntleroy Ave Seattle wa leg den as a pta of
lots 20, 21, 22 and 23 blk 17, Fremont Co's Plat of West Seattle accord
to plat thref rec vol 3 phis pg 19 rec of sd co kept pta cond in
Ks Sup Crt Cause No 93059 for the extension of Fauntleroy Ave as
prvd by Ord No 29063 of the City of

whch lease was rec whir he and fl No 3529168 fild Jan 4 46
Whing sp are now the owners of sd pty and have no to the rights
of the lessor under sd lease and whang the parties have not agreed to
a cancellation of sd lease thair sd lease is hereby cancelled and
terminated as of the 1st day of Jan 1946 and all rights and liabilities of both
parties under sd lease hereby done.

Sp is to leave all lighting fixtures except the two fluorescent fixtures
in the windows and is to vac the prem and re. all store fixtures and
merchandise thairm immediately

Kenneth E. Scholes

J. Pat Scott

Bens Scott

now Jan 9 46 by Kenneth E. Scholes and J. Pat Scott and Bens Scott
whir of J. B. George sp for the sum rec at s ns Jan 9 47 (ml sp 4500
Callis Ariz city)

Cancellation of Lease Jan 12 46

3531477

Jan 10 46 \$250

J. Pat Scott and Bens Scott, Mr

Kenneth E. Scholes

Where a short lease was entered into Jan 27 45 between Thomas B. McKinnon
lessor and sp as lessee regarding the fl den pty sit in new

not assign this lease or any int bidn witht the written consent of the lessor.

First and last mon rent pld in advance recd asked
lessor is to pay water service during the period of the lease,
and lessor is to pay all other pub utilities bills during the
period of the lease.

lessor is to maintain the upkeep of the exterior and lessor is
to maintain the interior during the period of ad lease.

Thomas B. McKinn Kenneth Schales

recd Mar 27-45 by Thomas B. McKinn and Kenneth M. Schales, bef
D. H. Miller as for as recd at a recd Jan 28-45 (Ml Kenneth S. Schales
4518 1/2 1st Ave Seattle)

Lease Jan 4-46

Oct 7-44

Thomas B. McKinn

to Kenneth Schales

By lease to ap the fare in recd

3529170

4479 Fauntleroy Ave Seattle, legally dec as a Pth of Lot 21 and all
of Lot 22 all in Bldg 17 Western Company's plat
for term of 3 yrs from 9-44 at no rent or sum of \$35. pld in
advance on the 9th day of each mo during ad term.

By not to ind lease or sublease the whole or any part of ad prem
not assign bidn lease or any int bidn witht written consent of lessor.

Thomas B. McKinn

Kenneth S. Schales

recd Oct 7-44 by Thomas B. McKinn and Kenneth Schales, bef Clarence
W. Hays as for as recd at a recd Aug 23-47 (Ml as as 169)

By Jan 4-46

Dec 27-44 (Ml \$2.75 sum \$2.50 a-t

Reside May Hesperly whom he appears of rec also as Reside May

Hesperly, a widow

to Allen P. Jackson and Margaret S. Jackson, as

By cy and att to ap the fare in recd

3529171

Lease 1 to 6 in Bldg 2 Kirkland Gardens Add to Kirkland
and to recd 7 of Bldg 2 12 rec of ad 64

(Ml)

Reside May Hesperly

to be in effect when the repairs to the bldg has been finished.
for term of 3 yrs from Aug 2-45 at no sum of \$65. pbl in advance
on the 8th day of each and every mo during ad term.
1st and last mos rent of \$65. each has been pd and recd by acted.
Sp not to lease or sublease the whole or any part of the ad prem
or assign this lease or any int tida wtht written consent of lessor.

Lillian Kraff

Kenneth M. Scholes

Don Kraff

Nov Aug 2-45 by Don Kraff and Lillian Kraff, as def Charles H.
Hochstetler as for as rec at a on Jul 8-46 (MI as 4507 California Ave
Seattle)

3529169

Lease Jan 4-46

Mar 27-45

Thomas B. Hoffman

to Kenneth Scholes

Sp lease to as the fare in law

These bldg loc at 4477 Fauntleroy Ave Seattle, Wash
for term of 3 yrs from Mar 27-45 at no sum of \$25. pbl in advance
on the 27th day of each and every mo during the term of this lease.
Sp not to lease or sublease the whole or any part of ad prem
nor assign this lease or any int tida wtht the written consent
of the lessor.

1st and last mos rent. pbl in advance recd acted

lessor is to pay water service during the period of the lease,
and lessor is to pay all other pub utilities bills during the
period of the lease.

lessor is to maintain the upkeep of the exterior and lessor is
to maintain the interior during the period of ad lease.

Thomas B. Hoffman

Kenneth Scholes

Nov Mar 27-45 by Thomas B. Hoffman and Kenneth M. Scholes, def
D. (Hollister as for as rec at a on Jan 28-45 (MI Kenneth M. Scholes
4318 Holff Ave Seattle)

3529170

Lease Jan 4-46

Oct 7-44

Thomas B. Hoffman

to Kenneth Scholes

Sp lease to as the fare in law

4477 Fauntleroy Ave Seattle, legally dec as a part of Lot 21 and all
of Lot 22 all in Eas. of Action Company's plat
for term of 3 yrs from Oct 7-44 at no rent or sum of \$75. pbl in
advance on the 9th day of each mo during ad term.

Sp not to lease or sublease the whole or any part of ad prem
nor assign this lease or any int tida wtht written consent of lessor.

Thomas B. Hoffman

Kenneth M. Scholes

Nov Oct 7-44 by Thomas B. Hoffman and Kenneth Scholes, def Clarence
William as for as recd at a on Aug 23-47 (MI as as 169)

3529171

Lease Jan 4-46

Oct 7-44

Thomas B. Hoffman

to Kenneth Scholes

now May 1 47 by ARTHUR HENNINGSEN MEMPHIS who is her attorney was
-The B Holsinger of "Wilbur Zundel ap" nrosatz (WS Jan 5 46) also 794

D Dec 13 45

3524776

2410
56

Nov 21 45 010.014.001rs and 13.01
George Zetes and Jeanne Zetes, mof
to J Pat Scott and Rose Scott mof

fp eye and were to apply decree with them
let 20, 21, 22 and 23, blk 37, Boston Co's. Plot of West Seattle
vol 3 platpg 19, rec. of ed co, or personhood in the Supr Court Cause
no 93059 for the extension of the term of the decree as wd by ord no 29043 of
these

George Zetes
by Jeanne Zetes his atty in fact
Jeanne Zetes

now Nov 21 45 by Jeanne Zetes for herself and as atty in fact for



794-2

George Zetes and on authorized that the PA authorizing the same
this last has nothing revealed and George Zetes is now living at
J B George ap Harte at 4 (WS Jan 9 47) also 795

D Dec 13 45

3524797

2410
567

Nov 21 45 010.014.001rs and 13.01
George Zetes and Jeanne Zetes, mof
to J Pat Scott and Rose Scott mof

496-2

lots 14 and 15 incl blk 3, Holbrook and Clark's add to West Seattle
1945 only of Glenney

lots 13 and 14, blk 3, Holbrook and Clark's add to West Seattle
lots 16 and 17 blk 3, Per. line only of Glenney

lots 20 and 21 incl L. 37 Boston Co's Flat into City of S
these places des above incl the bligs thereon toge all same pty
incl in the bligs;

that the above named greater is over the age of 21 yrs, and is

Dorothy Francis McKinn

Nov Apr 3 1945, by Dorothy Francis McKinn and woman bef Charles
Shrey a p for wares at a s Feb 14 1949 fld by sti co

D Nov 13 1945

3516497

Oct 15 1945 \$10 and o g and val con \$6.60 lrs x46 at x

Hannah McKinn gen of Mary Louise McKinn a minor, of s, wa,
testament Notes

sp of endu r tosp fld in new;

an undivided one half int in lots 20 21 22 and 23 blk 37
Boston Co's plat to the city of s, new, lying nw of Fauntleroy Ave
as cont by the city of s under no 29063

Hannah McKinn

Nov Oct 15 1945, by Hannah McKinn gen of Mary Louise McKinn a minor
Vern McKinn, a p for wares at a s Feb 14 1949
fld by sti co

D Nov 13 1945

351 6498

Oct 15 1945 \$10 and o g and val con 6.60 lrs x46 at x

Theresa McKinn and Hannah McKinn h anduf of, wa,
testament Notes

sp of saluar to ap fld in new;

an undivided one half int in lots 20 21 22 and 23, blk 37
Boston Co's plat to the city of s, new, lying nw of Fauntleroy Ave as
cont by the city of s under no 29063

Theresa McKinn; Hannah McKinn

Nov Oct 15 1945, by Theresa McKinn and Hannah McKinn h anduf, bef
Vern McKinn, a p for wares at a s Feb 14 1949 fld by sti co

Nov 13 1945

3516499

Oct 15 1945 \$10 and o v c \$3.36 lrs x43 at x

and Laura Benson
William Mitchell h

the above named greater is over the age of 21 yrs, and is
that the above named greater is over the age of 21 yrs, and is
that the above named greater is over the age of 21 yrs, and is

D Nov 1945

Oct 15 1945 \$10 and o g and val con \$6.60 lrs x16 at x
Hannah McKinnan gen of Mary Louise McKinnan a minor, of s, wa,
telephone notes

by order of court sold in new;

an undivided one half int in lots 20 21 22 and 23 blk 37
Boston Co's plat to the city of s, new, lying nw of Mountlery Ave
as cont by the city of s under No 29063

Hannah McKinnan

new Oct 15 1945, by Hannah McKinnan gen of Mary Louise McKinnan a minor
Vern Huchhaltz, a p for warrant a no Feb 14 1949
fld by sti co

D Nov 13 1945

Oct 15 1945 \$10 and o g and val con 6.60 lrs x16 at x
Thomas McKinnan and Hannah McKinnan h and w of s, wa,
telephone notes

by order of court to ap rdl in new;

an undivided one half int in lots 20 21 22 and 23, blk 37
Boston Co's plat to the city of s, new, lying nw of Mountlery Ave
as cont by the city of s under No 29063

Thomas McKinnan; Hannah McKinnan

new Oct 15 1945, by Thomas McKinnan and Hannah McKinnan h and w, bel
Vern Huchhaltz a p for warrant a no Feb 14 1949 fld by sti co

Nov 13 1945

Oct 15 1945 \$10 and o v c \$3.30 lrs x13 at x
Thomas Benson, and Laura Benson h w

by order of court to ap rdl in new;

lots 18 and 20 blk 132; Burdett Verrill's Kirkland add to the s
of s, new, blk 37

Thomas Benson; Laura Benson
new Oct 15 1945, by Thomas Benson, and Laura Benson h w of s, new
Kirkland, a p for warrant a no Feb 27 1945
Kirkland

(FOR)

496-2

lots 14 and 15 incl blk 3, Holbrook and Clark's add to West Seattle
city of Glenney

lots 14 and 15, blk 3, Holbrook and Clark's add to West Seattle
city of Glenney

lots 14 and 15, blk 3, Per. ling only of Glenney

lots 14 and 15 incl blk 37 Boston Co's Flat White City of S
these places does above incl the blgs thereon to all parts of
incl in the blgs;

that the above named greater is over the age of 21 yrs, and is a

Dorothy Francis McKinn

has Apr 3 1945, by Dorothy Francis McKinn a single woman bef Charles
Garry a p for wages at a s Feb 14 1949 flid by atty at

D Nov 13 1945

3516497

Oct 15 1945 \$10 and a g and val con \$6.00 lrs x46 at x

Hannah McKinn gen of Mary Louise McKinn a minor, of S, wa,

taxpayer notes

sp by order of court sold in New;

an undivided one half int in lots 20 21 22 and 23 blk 37

Boston Co's plat to the city of S, New, lying NW of Mountmore Ave
as cont by the city of S under No 29063

Hannah McKinn

has Oct 15 1945, by Hannah McKinn gen of Mary Louise McKinn a minor

Wm. McKinn, a p for wages at a s Feb 14 1949

flid by atty at

D Nov 13 1945

351 6498

Oct 15 1945 \$10 and a g and val con 6.00 lrs x46 at x

Hannah McKinn and Hannah McKinn a minor of S, wa,

taxpayer

sp by order of court

the above named greater is over the age of 21 yrs, and is a

that the above named greater is over the age of 21 yrs, and is a

Nov 13 1945

3516495

Nov 3 1945 Vol 6.05 lre x 5.50 Oct 2

Louis Wilson, and Florence A Wilson h and w f a marital conty on
Jul 26 1933, and all time since

Geoville D Miller, and Catherine M Miller, h and w f
spayed we to op fold in new;

lot 5 incl 20 of Sunrise Heights add to the of, diva no 2,
add to plat thereof rec in vol 27 of plats pg 42, rec of ke
subj to the rights of the put to make all necess slopes for cuts
or fill upon the lots, like on the of land shown on the plat in the
reamblerial grid of all the streets, avenues, alleys and roads shown
thereon, as created in the deed of the plat

Louis Wilson; Florence A Wilson

new Nov 3 1945, y Louis Wilson, and Florence A Wilson her Mar are Lett
a p for wares at a n Jul 29 1947

fld by atty gen al Pacific Int F&A Assn

D Nov 13 1945

3516496

Apr 3 1945 \$10 and 8 and vol con

George H. McMillan a singl woman or a, new,

to Thomas J. McMillan and Emma McMillan h and w f of new
spayed & a to op a ll int in fld in new;

(Contd --r02)

sp of change: equal including government

lots 13 to 24 inc ---Holbrook and Clark add to West
Seattle, LINE only of Cleary

lots 13 and 14, blk 5, Holbrook -Clark add to West Seattle
lots 16 and 17 blk 3 per. LINE only of Cleary -----
lots 20 to 23 inc blk 37, Boston Co's. Platts

These properties do not include the bridge then also all other
properties included in the bridge

Heenan McKinn

Nov Jan 16 43 by Hannah McKinn of B & Bates & Associates (March 23) 47
at sp 4410 W Alaska

9 Jan 18 43

Jan 16 43 Cleary

Thomas B McKinn and wife Hannah McKinn of Knox

to Dorothy Frances McKinn and Mary Louise McKinn of Nov
sp of land go to sp of land in the same situation

lots 16 to 24 inc blk 3 Holbrook & Clark add to West
Seattle, LINE only of Cleary

lots 13 and 14, blk 5, Holbrook and Clark add to West
Seattle

lots 16 and 17, blk 3, per LINE--only of Cleary--
lots 20 to 23 inc blk 37, Boston Co's. Platts to us

These properties do not include the bridge then also all other
properties included in the bridge

Thomas Bell McKinn

Hannah McKinn

Nov Jan 16 43 by Thomas B McKinn and Hannah McKinn of B & Bates &
Associates (March 23) 46) at Mrs. McKinn 4410 W Alaska
and

317029

D Jun 16 43

3317026

Feb 2 42 0129. 550 lrs and 500 st

Isadora Baker of Tacoma WA

to Rutha Benton of Seattle WA

fp a g t s and cy to sp the flg des re sitia new

lot 14, in blk 11, Mademoiselle Beach Conference Division new

Isadora Baker

Placed by Jul 17 42 by Isadora Baker of Bellevue Harbor nphres

Thomas H Tacoma (March 15 46) map r 2 bx 104 A Bethell WA

+++

D Jun 16 43

3317027

Oct 30 42 v1 andaga e ve

Thomas B McKinnon married man

to Hannah B McKinnon mtr

fp cy andgetop allintiaflg dears sit in new

lots 16 to 24, in blk 3, Holbrook and Clark Add to

West Seattle Line Solyor Glenway

lots 13 and 14, blk 5, Holbrook and Clark add to West Seattle

lots 16 and 17, blk 3, per. LINE only of Glenway

lots 20 to 23, in blk 37, Bontenoe's notes

These properties deasy include the obligation

Thomas B McKinnon

new Oct 28 42 by Thomas B McKinnon of Alaska Chambers Express-

(WA dec 4 42) map 4410 W Alaska st

+++

D Jun 16 43

3317028

Jan 16 43---Vlendove

Hannah McKinnon married woman of new

to Thomas B McKinnon mtr

fp cy andgeto spell intiaflg dears sit in new

lots 16 to 24, in ---Holbrook and Clark add to West
Seattle, LINE only of Glenway

lots 13 and 14, blk 5, Holbrook and Clark add to West Seattle

lots 16 and 17 blk 3 per. LINE only of Glenway -----

lots 20 to 23 in blk 37, Boston Corp. Platted

These properties des nev include the obligs than also all, and
properties included in the obligs

Hannah McKinnon

new Jan 16 43 by Hannah McKinnon of B F Bates Chambers Express (WA Jan 23 47

ml fp 4410 W Alaska

+++

D Jun 16 43

3317029

Jan 16 43 Glendove

Thomas B McKinnon and mtr Hannah McKinnon of new

to Dorothy Frances McKinnon and Mary Louise McKinnon of new

fp cy andgeto spell intiaflg dears sit in new

lots 16 to 24, in blk 3, Holbrook and Clark Add to West

DATE	FILE #	INST	GRANTOR	GRANTEE
July 20, 1989	133	QCD	I.C. LEASING INC.	MIDAS PROPERTIES INC.
August 22, 1986	107	QCD	MIDAS REALTY CORPORATION	I.C. LEASING INC.
December 15, 1976	649	WD	SHELL OIL COMPANY	MIDAS REALTY CORPORATION
July 31, 1961	5314852	SWD	J.S. & MILDRED WHITING	SHELL OIL COMPANY
March 5, 1959	5004492	SWD	ROBERT E. BLAKEFIELD	J.S. & MILDRED WHITING
July 23, 1951	4155215	D	MARY LOUISE MCMINN WHEIR	THOMAS B. & HANNAH MCMINN
April 21, 1947	3678719	D	NELLIE K. HAMILTON	MILDRED BLAKEFIELD
April 8, 1946	3556917	D	J. PAT & BESS SCOTT	J.S. & MILDRED WHITING
January 12, 1946	3531477	TERM LEASE	J. PAT & BESS SCOTT	KENNETH E. SAHOLES
January 12, 1946	3531476	TERM LEASE	J. PAT & BESS SCOTT	KENNETH E. SAHOLES
January 4, 1946	3529170	LEASE	THOMAS B. MCMINN	KENNETH E. SAHOLES
January 4, 1946	3259169	LEASE	THOMAS B. MCMINN	KENNETH E. SAHOLES
December 13, 1945	3524796	D	GEORGE & JEANNE ZOTES	J. PAT & BESS SCOTT
November 13, 1945	3516498	D	THOMAS B. & HANNAH MCMINN	JEANNE ZOTES
November 13, 1945	3516497	D	MARY LOUISE MCMINN	JEANNE ZOTES
November 13, 1945	3516496	D	DOROTHY MCMINN	THOMAS B. & HANNAH MCMINN
June 16, 1943	3317029	D	THOMAS B. & HANNAH MCMINN	DOROTHY FRANCES MCMINN AND MARY LOUISE MCMINN
June 16, 1943	3317028	D	HANNAH MCMINN	THOMAS B. MCMINN
June 16, 1943	3317027	D	THOMAS B. MCMINN	HANNAH B. MCMINN

Appendix C

Ecology Environmental Tracking Report, 1996

11/7/96
10:15 AM
INCIDENT ID: N25406

DEPARTMENT OF ECOLOGY
ENVIRONMENTAL REPORT TRACKING SYSTEM
REFERRAL

PAGE 1



PROGRAM/ORGANIZATION: TOXICS CLEANUP
LUST

CONTACT: GALLAGER, MIKE

REFERRAL DATE: 11/07/1996

URGENT RESPONSE?: N PRIMARY?: Y

OTHER PROGRAM/ORGANIZATIONS REFERRED TO:

ADDITIONAL INFO:

COORDINATOR: GILLEG, VICKI

REPORT 1 OF 1

DATE/TIME REC'D: 11/07/1996 10:02 AM
ACTUAL DATE: 11/07/1996

REPORT TYPE: INITIAL

CALLER NAME: SIMPSON, RICHARD
AQUAFER ASSOC. (48?)

ANONYMOUS?:

ADDRESS:

PHONE: W ~~206-248-0274~~ EXT: TYPE: NORMAL
206-439-9012

COUNTY: KING

CITY: SEATTLE

WEATHER: CLOUDY TIDE:

WATERWAY:

LATITUDE: LONGITUDE:

TOWNSHIP: RANGE: E/W: SECTION:

LOCATION INFO:

MEDIUM: SOIL

MATERIAL: OIL/PETROLEUM
WASTE/USED OIL

QTY: UNIT:
OTHER: HEATING OIL

HAZARDOUS: Y

CAUSE: LEAKING UNDERGROUND STORAGE TANK

11/7/96
10:15 AM
INCIDENT ID: N25406

DEPARTMENT OF ECOLOGY
ENVIRONMENTAL REPORT TRACKING SYSTEM
REFERRAL

PAGE 2

IMPACT: SOIL CONTAMINATION

SOURCE: UNDERGROUND STORAGE TANK

ACTIVITY: ROUTINE/NORMAL OPERATION

ALLEGED VIOLATOR 1: MIDAS MUFFLER

ADDRESS: 4457 FAUNTLEROY WAY SW

SEATTLE WA

ADDITIONAL INFO:

206 - 937 - 1950

ADDITIONAL INFORMATION ON INCIDENT:

TWO 500 GALLON TANKS ARE IN PLACE. ONE IS HEATING OIL. LUST IS WASTE OIL. SITE ASSESSOR CALLED IN REPORT, UNKNOWN HOW MUCH SOIL IS CONTAMINATED.

ASSESSOR WOULD LIKE LUST NUMBER CALLED INTO HIM AS SOON AS ASSIGNED. CALL RICHARD SIMPSON AT AQUAIFER ASSO. (206) 248-0274.

11:30 am 3/24/97

Charles Unsworth - CEC Mems. Corp. office

834-0983.

Marv. Fife

West Lual. tank - W. 88 is cont. Company

932-1000

266

John dealer

tanks should since Shell station

took soil samples

Spoke 4/25/97 & rechecked Eric's

covered
said b-r holes. No excavation or new asphalt
applied

11/7/96
10:15 AM
INCIDENT ID: N25406

DEPARTMENT OF ECOLOGY
ENVIRONMENTAL REPORT TRACKING SYSTEM
REFERRAL

PAGE 3

=====

INVESTIGATOR: Maule

DATE STARTED: 3/27/97

6/8/98
DATE COMPLETED: 3/27/97 *CH*

ACTION: II. Visit, LUST tested ACTION DATE: 3/27/97

NARRATIVE:

Maule I.I @ 11:30 am 3/27/97. Spoke w/ Jared & Eric; tank unused since Shell Station. Tank Wise is contractor company. Saw soil sample bore holes. No excavation nor new asphalt. To call Midas CEO Charlie Vineyard @ 804-0953.

~~Referred~~ Referred to Joe Hickey for LUST issues. *CH* for PM 6/9/98

UST site #1985. Tanks closed in place. Gasoline showed up also.

UST Base shows 2 tanks temporarily closed prior to this 11-7-96 call, but no permanent closure. The database says 2 tanks, a waste oil and a diesel.

The testing in 11-96 showed 1200 ppm (418.1), w/ an odor of gasoline. More @ SW corner of building @ 2600 ppm gasoline, & 60 ppm xylene (other BTEX okay). More toward road 1100 ppm TPH gasoline & 300 ppm xylene. Groundwater was present but not tested.

UST Inc. # 487222, Midas Muffler Farnthorpe

Edit Go to Exit

Internal Referral Information:

ident:	N25406	
Referred to program:	TCP	Section Head: -0-
Investigation Completed? (Y/N) :	Y	Date Inv. 03/27/97
Staff Person:	Maule	Date Comp: -0-
Action Taken:	I.I., to call	Cause: -0-
Impact:	-0-	External Referral? (Y/N): -
Nonpoint:	-0-	Point: -0-
Enforcement Sensitive? (Y/N) :		-
Cross-Reference To Other Systems:		ERTS
Reference to (Put tag on this field) :		-0-
mark:		-0-

[Page Down] to next page

Form: work_frm Table: inref

Field: ext_ref

Page: 2

Edit Go to Exit

~~Alleged=contaminant:~~

ident:	N25406	Medium:	SOIL	Quantity:	-0-
Material:	WASTE OIL	Other Material:	HEATING OIL		
Comments:	Source: UNDERGROUND STORAGE TANK				
TWO 500 GALLON TANKS ARE IN PLACE. ONE IS HEATING OIL. LUST IS WASTE OIL.					
SITE ASSESSOR CALLED IN REPORT, UNKNOWN HOW MUCH SOIL IS CONTAMINATED. AS					
SESSOR WOULD LIKE LUST NUMBER CALLED IN TO HIM AS SOON AS ASSIGNED. CALL					
RICHARD SIMPSON AT AQUIFER ASSO. (206)248-0274.					

~~Actual=Contaminant:~~

ident:	N25406	Medium:	-0-	Transfer:	-0-
Material:	-0-	Quantity:	-0-		
Source:	-0-	Other mat:	-0-		
Narrative:					
MAULE I.I. @ 11:30 a.m.. Spoke w/ Jared and Eric; tank unused since was Sh					
ell Station. Tank Wise is contractor company. Saw soil sample bore holes					
. No excavation nor new asphalt. To call Midas CEO Charlie Vineyard					
@ 824-0983.					

Form: work_frm Table: contaminant

Field: ident

Page: 3

Appendix D

Photograph Log

Appendix E

Site-Specific Sampling and Analysis Plan Checklist

APPENDIX D

SITE-SPECIFIC SAMPLING AND ANALYSIS PLAN CHECKLIST

This checklist supplements the *Lower Duwamish Waterway – Site Hazard Assessment and Limited Investigation Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP)* to support sampling activities for Site Hazards Assessments (SHAs) and limited site investigations for contaminated sites overseen by Washington State Department of Ecology (Ecology).

APPROVALS (PRINTED NAME, SIGNATURE, DATE):

Alice Robinson

Plan Preparer	Date
PM/Reviewer	Date
Ecology	Date

SITE INFORMATION

Site Name: Midas Muffler Fauntleroy

Site Address: 4457 Fauntleroy Way SW, Seattle, WA 98126

Known contaminants of concern:
Gasoline-range hydrocarbons, xylenes

Suspected potential contaminants of concern:

Benzene, toluene, ethylbenzene, diesel- and oil- range TPH, VOC fuel additives, metals, PAHs, PCBs

PROJECT ORGANIZATION

Title/Responsibility	Name	Affiliation	Phone Number/Email
Ecology Point of Contact	Tamara Cardona-Marek	Washington State Department of Ecology	425-649-7058 Taca461@ecy.wa.gov
KJ Project Manager	Ty Schreiner	Kennedy/Jenks Consultants	253-835-6428/C:206-419-0048 Tyschreiner@kennedyjenks.com
Field Lead/SSO	Julia Schwarz	Kennedy/Jenks Consultants	253-835-6424/C:206-384-5944 juliaschwarz@kennedyjenks.com
Laboratory	Mark Beasley	ESC Lab Sciences	615-773-9672 mbeasley@esclabsciences.com
Subcontractors	Dale Abernathy	Holt Services (Driller)	253-604-4878/C:253-318-8996 Dabernathy@holtservicesinc.com

Subcontractors	Bill Phillips	APS Locates	206-571-1857 bphillips@apslocates.com
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SAMPLING AND ANALYSIS SUMMARY

Describe the purpose and objective of field investigation and briefly state rationale for sampling locations:

Brief Site History:

Ecology was notified of a leaking underground storage tank (LUST) at the site in 1996. According to the incident report completed in November 1996, two 500-gallon underground storage tanks (USTs) were present at the site. This report indicates that the leaking UST contained waste oil, while the other tank contained heating oil. However, a later Initial Investigation (II) report by an Ecology employee describes the non-leaking tank as containing diesel. At the time of this report, the two tanks were reported to be temporarily closed, but there was no record of specific closure activities so it is unclear if the tanks were fully decommissioned or just taken out of service. No site map indicating the location of the tanks was available. However, based on the locations of samples described in the II report, the tanks are likely located near the southeast corner of the building.

According to the II report, the two USTs had been unused since the site's former use as a Shell service station. Handwritten notes by an Ecology employee indicate that soil samples were collected in November 1996 at the time the LUST was reported. The Ecology employee notes that soil sample boreholes were observed upon a March 1997 visit; however, it is unclear where these borings were advanced, or if any samples were collected from these locations. The II report also notes that there was no excavation or new asphalt at the site.

Notes in Ecology's file also suggest that soil sample results from the site were available, though no analytical reports or sample location map were present in Ecology's files. Site notes state that a soil sample collected in November 1996 contained 1,200 ppm TPH (418.1) and had an odor of gasoline. Gasoline and xylenes were detected in two other soil samples that were reportedly collected below the southwest corner of the building (2,600 ppm gasoline and 60 ppm xylenes) and "more toward road" (1,100 ppm gasoline and 300 ppm xylenes). The gasoline and xylenes concentrations were above the current MTCA Method A soil cleanup levels. Ecology's file notes indicate that "other BTEX okay." However, it is unclear if this means that other BTEX constituents were not detected, or that they were detected but at concentrations below applicable cleanup levels at the time.

Handwritten notes included in the II report indicate that groundwater was encountered during the November 1996 soil sampling, but no groundwater samples were collected. Depth to groundwater at this site is unknown, but is presumably shallow.

Work Plan:

Ground penetrating radar (GPR) will be used to attempt to verify the locations of the two USTs related to the LUST report, and other subsurface features including additional USTs that may be present. The GPR survey will include the areas south and east of the building in addition to the suspected LUST area. The site will also be inspected for visual evidence of USTs such as fill

Site Name: Midas Muffler Fauntleroy

ports, vent pipes, patched pavement, etc., and previous soil boring locations. Historical aerial photographs may be reviewed at a local provider (Aero-Metrics, Aerolist, or similar).

A direct-push Geoprobe drilling rig will be used to advance soil borings at the site to characterize the extent of residual soil and groundwater impacts. Up to twelve borings will be advanced at locations including the suspected location of the USTs, the vicinity of a concrete slab located west of the building that may have served as a historical pump island or tank slab, the parking lot downgradient of the suspected UST location, and at/near property margins. Soil samples will be collected from each boring for laboratory analysis as summarized in the attached Table A-1.

The attached map shows preliminary proposed boring locations, but locations may be modified based on the findings of the GPR survey and site inspection. Boring locations may also be modified in the field in order to characterize the lateral and vertical distribution of impacts to soil and groundwater on the property.

An attempt to collect reconnaissance groundwater samples will be made at each boring location with evidence of water within the soil core, except those at which permanent wells are installed, if any. Proposed reconnaissance groundwater sampling and analyses are summarized in the attached Table A-1.

Groundwater monitoring wells may be installed at up to four of the soil boring locations depending on the field observations. New wells, if any, will be installed using the direct-push drill rig once soil sampling is completed, and will consist of a 10-foot section of pre-pack well screen installed across the water table. Any new wells will be developed at least one week prior to sampling. Groundwater well sampling and analysis is summarized in the attached Table A-1.

INVESTIGATION DERIVED WASTE

What waste is anticipated?

☒ Solid: 1-2 drums ☒ Liquid: up to 6 drums ☐ Mixed: _____

How will it be handled?

Waste will be drummed onsite in 55 gallon drums.

☒ 55 Gallon Drums ☐ Other: _____

How will it be characterized?

Composite samples will be collected from each drum for disposal purposes; or, if no visual or olfactory impacts are observed, grab samples already collected for analysis may be used for waste characterization.

If waste is to remain on site, by what date will it be removed for disposal as a non-hazardous waste?

Waste will be removed by May 31, 2017.

If waste is to remain on site, who on site has been notified and serves as a contact?

Luis Jimenez will be the contact person for the site. He will be notified prior to commencement of field work that the waste will remain onsite.

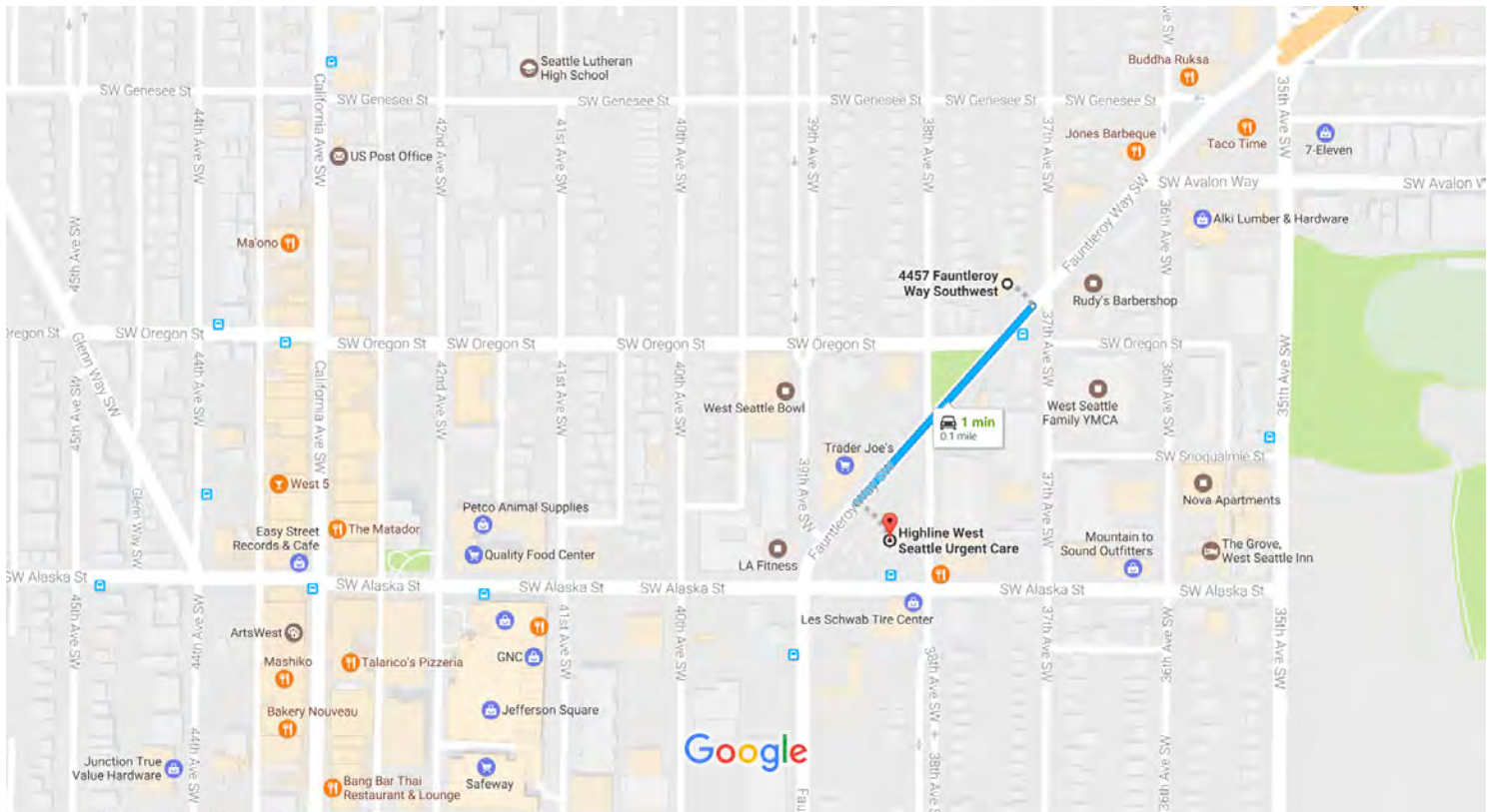
Site Name: Midas Muffler Fauntleroy

PRE-FIELD CHECKLIST

Activity	Date completed	Not applicable
Public utility locate requested by Kennedy/Jenks Consultants	2/21	
Private utility locate coordinated by Kennedy/Jenks Consultants	2/24	
Property owner/tenant coordination & access agreement	Completed	
Laboratory coordination	Completed	
Subcontractors coordination	Drilling tentatively scheduled for March 1-3	
Hospital route map (attach)	Attached.	
Sample location map (attach)	Attached.	
HASP Addendum (attach if necessary)		Not applicable.



4457 Fauntleroy Way Southwest, Seattle, WA to Highline West Seattle Urgent Care, 4550 Fauntleroy Way SW, Seattle, WA 98126 Drive 0.1 mile, 1 min



Map data ©2017 Google 200 ft

4457 Fauntleroy Way SW

Seattle, WA 98126

1. Head southwest on Fauntleroy Way SW toward SW Oregon St

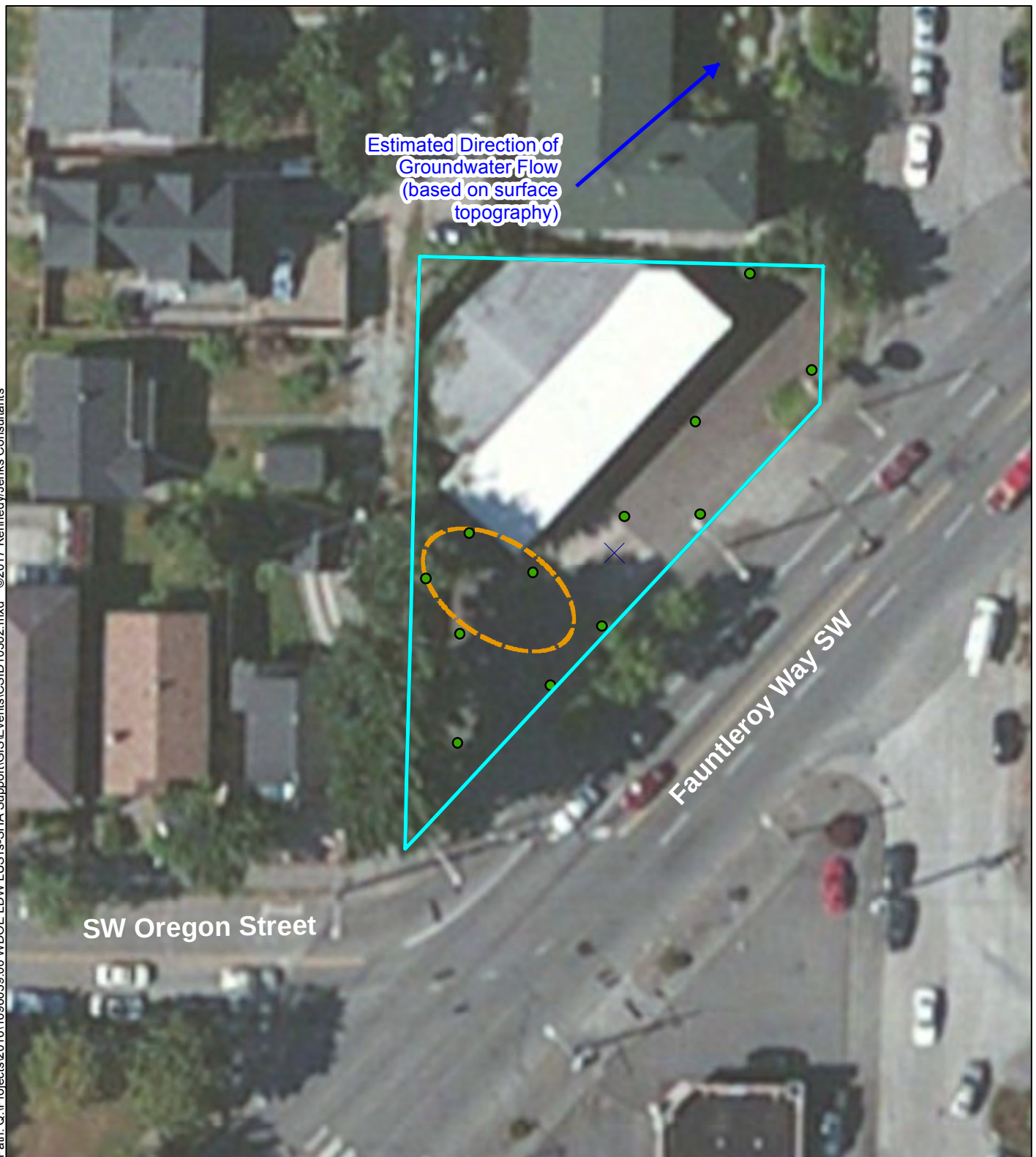
0.1 mi

Highline West Seattle Urgent Care

4550 Fauntleroy Way SW, Seattle, WA 98126

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Path: Q:\Projects\2016\1696059.00 WDOE LDW LUSTs-SHA Support\GIS\Events\CSID10302.mxd ©2017 Kennedy/Jenks Consultants



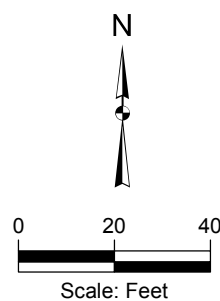
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

-  Proposed Soil/Groundwater Sample Location
-  Suspected Location of USTs
-  Parcel

Note:

1. All locations are approximate.
2. Soil sample locations dependent on groundwater conditions.
3. Boring locations are approximate and may be modified pending GPR survey results.



Kennedy/Jenks Consultants

Midas Muffler Fauntleroy
Seattle, Washington

DRAFT

Site Overview Map

1696059*00
February 2017

Figure 1

TABLE A-1: SAMPLING AND ANALYSIS PLAN
SITE NAME: Midas Muffler Fauntleroy

Sample Location/Designation (See Site Map)	Media	Sample Interval (Depth)	Blind Duplicate	Anticipated Analyses									Description/Rationale/Comments (Include information such as sample type, e.g. discrete, composite; collection method, e.g. bailer, peristaltic pump; filter requirements; purge methods; frequency/duration, and leak test requirements for air and vapor samples)	
				NWTPH-G	NWTPH-DX	BTEX	Naphthalene	VOCs (incl. fuel additives)	RCRA Metals	PAHs	PCBs	Lead (only)		
Analytical Samples S = soil, GW = groundwater, SW = surface water, SD = sediment, IA = indoor air, AA = ambient air, SS = sub-slab soil gas, SG = soil gas														
Soil Boring Samples:														
From each soil boring, retain up to four soil samples. Samples will be collected from intervals with the highest observed impacts, if any. At least two samples from each boring will be submitted for initial laboratory analysis with the remainder to be held by lab for possible follow-up analyses. If no impacts are observed, these will included one sample taken from above the water table at the approximate depth of the UST bottom (5-15' bgs), and one from the bottom of the boring. Borings will initially be advanced to 20 feet bgs (unless refusal conditions are encountered), but will be advance to greater depth if contaminant impacts are present at 20 feet or to facilitate collection of reconnaissance groundwater samples.														
Exact sample depths will be determined based on field screening observations.														
Standard suite of analyses for all soil samples	S	0-20'		x	x	x	x							Standard analyses to be performed for soil samples, up to two samples per boring (up to 24 total samples).
Borings >20' bgs, if any	S	>20'		x	x	x	x							Analyses to be performed for all soil samples for borings advanced deeper than 20 feet bgs, if any.
Expanded suite of analyses for select soil samples	S	0-20'		x	x			x	x	x	x			Expanded analyses including VOCs, metals, PAHs, and PCBs to be performed for select soil samples based on field observations of contaminant impacts . Expanded analyses will be performed for <u>at least six</u> soil samples and potentially <u>up to twelve</u> (one per boring) if warranted based on field observations.
Field Duplicate Soil Sample	S	tbd	x	x	x	x	x	x	x	x	x			Potential analyses for field duplicate. Sample recovery may not be sufficient for all analyses at a single location. At least one duplicate will be collected for each analysis. Duplicate analyses will be performed at a rate of 1 per 20 samples.
Reconnaissance Groundwater Samples:														
Reconnaissance groundwater sampling will be attempted at each boring location. Samples will be collected using a peristaltic pump through a temporary PVC well screen installed in each boring. Screens will be set across the water table and include the upper five feet of the upper saturated zone (anticipated to be approximately 15-20' bgs). Limited purging will be performed to reduce visible turbidity prior to sample collection. Reconnaissance samples will not be collected if a permanent well is installed.														
Standard suite of analyses for reconnaissance groundwater samples (at least eight samples)	GW	top of saturated zone		x	x	x	x							Up to 12 reconnaissance groundwater samples will be collected, one from each boring, using a temporary PVC well screen installed in the soil boring. Water volume may not be sufficient to perform all listed analyses. Priority will be given to TPH and BTEX.
Expanded suite of analyses for select reconnaissance groudwater samples (up to four samples site-wide)	GW	top of saturated zone		x	x			x	x	x	x			Up to four reconnaissance groundwater samples will be submitted for analysis of VOCs, RCRA metals, PAHs, and PCBs from locations with evident impacts. Water volumes may not be sufficient to perform all the listed analyses at a single location. Metals samples will be field-filtered and analyzed for dissolved metals.
Reconnaissance GW Duplicate	GW	top of saturated zone	x	x	x	x	x	x	x	x	x			If possible, one field duplicate of reconnaissance groundwater will be collected for each analysis from locations with noted impacts (if applicable). Water volume may not be sufficient to perform all listed analyses at any one location, so duplicates may be collected from multiple locations for separate analyses.
Monitoring Well Groundwater Samples:														
Monitoring Wells (new wells, if any)	GW			x	x			x	x	x	x			Groundwater samples will be collected from up to four new monitoring wells (if any are installed) using a peristaltic pump and low-flow sampling techniques. The wells will be developed at least one week prior to sampling. For metals, both filtered and unfiltered samples will be collected and analyzed for both total and dissolved metals.
Groundwater Duplicate	GW	x		x	x			x	x	x	x			One duplicate groundwater sample will be collected from the location with the greatest indication of impacts.
Other QC Samples (Rinsate Blanks, Temperature Blanks)														
Temperature Blank/Trip Blank	W (Provided by lab)					x		x						One for each cooler of samples.
MEDIA DESIGNATIONS S = soil, GW = groundwater, SW = surface water, SD = sediment, IA = indoor air, AA = ambient air, SS = sub-slab soil gas, SG = soil gas														
See Table 1 of the SAPI/QAPP for Analytical Methods, Sample Containers, Preservatives, and Holding Times														

Notes:
1. Boring locations may be modified/added based on field conditions.
2. All analyses will be confirmed with the Ecology project manager.

TABLE 2: SUMMARY OF ANALYTICAL METHODS, SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES^(a)

Analyte	Method	Soil/Sediment			Gro
		Container	Preservative	Holding Time	Container
Gas Range TPH	NWTPH-Gx	2-40 mL vial/ 1-2 oz. WMGS	Cool≤6°C, 2xMethanol	14 Days	2-40 mL AGV
BTEX	EPA 8021B				
Diesel/Oil Range TPH	NWTPH-Dx	8 oz. WMG	Cool≤6°C	14 Days	2-500 mL AG
SVOCs/PAHs	EPA 8270D-SIM	8 oz. WMG	Cool≤6°C	14 Days	2-500 mL AG
VOCs	EPA 8260C	4-40 mL vial/ 1-2 oz. WMGS	Cool≤6°C, 2xSodium Bisulfate, 2xMethanol	14 Days	3-40 mL vial; collection by EPA Method 5035
VOCs	TO-15				
Total/Dissolved Metals	EPA 6020/200.8	4 oz. WMG	Cool≤6°C	6 Months	500 mL HDPE
Total Mercury	EPA 7471	4 oz. WMG	Cool≤6°C	28 Days	
Total/Dissolved Mercury	EPA 1631				500 mL fluoropolymer or glass; collection by EPA Method 1669
PCB Aroclors	EPA 8082	8 oz. WMG	Cool≤6°C	14 Days	2-500 mL AG
Dioxins/Furans	EPA 8290	250 mL AWMG	Frozen	1 year	1 Liter AG

Notes:

- (a) All sampling requirements and holding times to be verified prior to any sample collection activities.
- (b) Holding time is 2 days if unpreserved, 14 days otherwise.
- (c) Holding time is 48 hours if unpreserved, 28 days otherwise.

Abbreviations:

°C = degrees Celsius

AG = amber glass boston round bottle

AGV = amber glass vial

AWMG = amber wide mouth glass jar

BrCl = bromine monochloride

HCl = hydrochloric acid

HDPE = high density polypropylene

HNO₃ = nitric acid

mL = milliliters

oz. = ounce

PCB = polychlorinated biphenyls

BTEX = benzene, toluene, ethylbenzene, xylenes

TPH = total petroleum hydrocarbons

EPA = United States Environmental Protection Agency

VOCs = volatile organic compounds

SIM = select ion monitoring

SVOCs = semivolatile organic compounds

WMG = wide mouth glass jar

WMGS = wide mouth glass jar with Septa

Grayed cells indicates analytical method not applicable to sample media.

Underwater/Stormwater		Air/Soil Gas	
Preservative	Holding Time	Container	Holding Time
HCl, Cool≤6°C	2 Days/ 14 Days ^(b)		
Cool≤6°C	7 Days		
Cool≤6°C	7 Days		
HCl, Cool≤6°C	2 Days/ 14 Days ^(b)		
		Summa Cannister	30 Days
HNO ₃ , Cool≤6°C	6 Months		
HCl or BrCl	48 hours/ 28 Days ^(c)		
Cool≤6°C	7 Days		
Cool≤4°C	14 Days		

Appendix F

2017 Soil Boring Logs

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION SW corner of property - see map		Boring Name B-01	
DRILLING COMPANY HOLT Services		DRILLER Louie Fehner	
DRILLING METHOD(S) Geoprobe 7800		DRILL BIT(S) SIZE 2-inch	
ISOLATION CASING N/A		FROM N/A TO N/A FT.	
BLANK CASING N/A		FROM N/A TO N/A FT.	
SLOTTED CASING N/A		FROM N/A TO N/A FT.	
SIZE AND TYPE OF FILTER PACK N/A		FROM N/A TO N/A FT.	
SEAL N/A		FROM N/A TO N/A FT.	
GROUT N/A		FROM N/A TO N/A FT.	
MEASURING PT. ELEVATION		TOTAL DEPTH 20.0 ft. bgs	
DATE STARTED 3/1/17		DATE COMPLETED 3/1/17	
INITIAL WATER DEPTH (FT) 15.0			
LOGGED BY N. Moxley (WA L.G. # 3024)			
SAMPLING METHODS macro core		WELL COMPLETION ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NUMBER	BACKFILL DETAILS	PID (ppm)	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"							
	0								Air knife / vac clearance to 5-feet Brown, fine to medium SAND with gravel, concrete/asphalt fragments, cobbles, and trace silt
	4		5			0.0			Silty SAND with gravel Brown, silty, fine to medium SAND with gravel, wet (from perched water), no odor, no sheen moisture decreases below 6-feet
	4		10	B-1 (10.0-11.0)		2.1		SM	color becomes gray
	5		15			0.4			Poorly graded SAND with silt and gravel Gray, fine to medium SAND with silt and trace gravel, moist to wet, no odor, no sheen
			16			4.8			
			17			1.6			
			18					SP/ SM	
			19			1.5			
			20	B-1 (19.0-20.0)		0.2		SM	Silty SAND with gravel Brown, silty fine SAND with trace gravel, wet, no odor, no sheen

NOTES

- Boring terminated at 20-feet bgs, backfilled with bentonite, and finished to match existing grade
- Reconnaissance groundwater sample 'B-1' collected from a temporary PVC well screen placed in the open borehole and screened from 10.0 - 20.0 feet bgs

KJ PNW MIDAS FAUNTLEROY BORING LOGS.GPJ KJ PNW.GDT 3/8/18

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION SW corner of property - see map		Boring Name B-02	
DRILLING COMPANY HOLT Services		DRILLER Louie Fehner	
DRILLING METHOD(S) Geoprobe 7800		DRILL BIT(S) SIZE 2-inch	
ISOLATION CASING N/A		FROM N/A TO N/A FT.	
BLANK CASING N/A		FROM N/A TO N/A FT.	
SLOTTED CASING N/A		FROM N/A TO N/A FT.	
SIZE AND TYPE OF FILTER PACK N/A		FROM N/A TO N/A FT.	
SEAL N/A		FROM N/A TO N/A FT.	
GROUT N/A		FROM N/A TO N/A FT.	
MEASURING PT. ELEVATION		TOTAL DEPTH 20.0 ft. bgs	
DATE STARTED 3/1/17		DATE COMPLETED 3/1/17	
INITIAL WATER DEPTH (FT) N/A			
LOGGED BY N. Moxley (WA L.G. # 3024)			
SAMPLING METHODS macro core		WELL COMPLETION ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NUMBER	BACKFILL DETAILS		PID (ppm)	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"								
	0									Air knife / vac clearance to 5-feet Brown, fine to medium SAND with gravel, concrete/asphalt fragments, cobbles, and trace silt
	2		5				0.0			Silty SAND Gray, silty, fine SAND, moist, no odor, no sheen
	5		10				0.0		SM	
				B-2 (13.0-14.0)			0.0			orange mottling present 13.5 - 14.0 feet
	5		15				0.0			Sandy clayey SILT Gray, fine sandy SILT with clay (very dense), moist, no odor, no sheen
				B-2 (19.0-20.0)			0.0		ML/CL	gravel present below 15.0 feet
			20							

NOTES

- Boring terminated at 20-feet bgs, backfilled with bentonite, and finished to match existing grade

KJ PNW MIDAS FAUNTLEROY BORING LOGS.GPJ KJ PNW.GDT 3/8/18

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION SW corner of property - see map		Boring Name B-03	
DRILLING COMPANY HOLT Services		DRILLER Louie Fehner	
DRILLING METHOD(S) Geoprobe 7800		DRILL BIT(S) SIZE 2-inch	
ISOLATION CASING N/A		FROM N/A TO N/A FT.	
BLANK CASING N/A		FROM N/A TO N/A FT.	
SLOTTED CASING N/A		FROM N/A TO N/A FT.	
SIZE AND TYPE OF FILTER PACK N/A		FROM N/A TO N/A FT.	
SEAL N/A		FROM N/A TO N/A FT.	
GROUT N/A		FROM N/A TO N/A FT.	
MEASURING PT. ELEVATION		TOTAL DEPTH 15.0 ft. bgs	
DATE STARTED 3/1/17		DATE COMPLETED 3/1/17	
INITIAL WATER DEPTH (FT) N/A			
LOGGED BY N. Moxley (WA L.G. # 3024)			
SAMPLING METHODS macro core		WELL COMPLETION ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NUMBER	BACKFILL DETAILS		PID (ppm)	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"								
	0									Air knife / vac clearance to 5-feet Brown, fine to medium SAND with gravel, concrete/asphalt fragments, cobbles, and trace silt
	2.5		5	B-3 (6.0-7.0)			519 896 741	SM		Silty SAND Gray, silty, fine to medium SAND, moist, petroleum type odor and sheen
	5		10				165 304 63 24	ML/ CL		Sandy clayey SILT with gravel Gray, fine sandy SILT and CLAY with gravel (very dense), damp, no odor, no sheen
			15	B-3 (14.0-15.0)						

NOTES

- Boring terminated at 15-feet bgs, backfilled with bentonite, and finished to match existing grade

KJ PNW MIDAS FAUNTLEROY BORING LOGS.GPJ KJ PNW.GDT 3/8/18

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION SW corner of property - see map		Boring Name B-04	
DRILLING COMPANY HOLT Services		DRILLER Louie Fehner	
DRILLING METHOD(S) Geoprobe 7800		DRILL BIT(S) SIZE 2-inch	
ISOLATION CASING N/A		FROM N/A TO N/A FT.	
BLANK CASING N/A		FROM N/A TO N/A FT.	
SLOTTED CASING N/A		FROM N/A TO N/A FT.	
SIZE AND TYPE OF FILTER PACK N/A		FROM N/A TO N/A FT.	
SEAL N/A		FROM N/A TO N/A FT.	
GROUT N/A		FROM N/A TO N/A FT.	
MEASURING PT. ELEVATION		TOTAL DEPTH 20.0 ft. bgs	
DATE STARTED 3/1/17		DATE COMPLETED 3/1/17	
INITIAL WATER DEPTH (FT) N/A			
LOGGED BY N. Moxley (WA L.G. # 3024)			
SAMPLING METHODS macro core		WELL COMPLETION ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NUMBER	BACKFILL DETAILS	PID (ppm)	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"							
	0								Air knife / vac clearance to 5-feet Brown, fine to medium SAND with gravel, concrete/asphalt fragments, cobbles, and trace silt
	3		5	B-4 (6.0-7.0)		216 186 147	ML		Sandy SILT with gravel Dark brown, fine sandy SILT with gravel (loose), wet (from perched water), slight petroleum type odor, no sheen color becomes bluish gray, with light brown mottling below 6.5-feet
	5		10	B-4 (11.0-12.0)		29 26 9 15	SM		Silty SAND Gray, silty fine SAND, moist, slight petroleum type odor, no sheen
	5		15			0.1 0.0	ML/CL		Sandy clayey SILT with gravel Gray, fine sandy and clayey SILT with gravel, moist, no odor, no sheen
			20						Silty SAND Brown, silty, fine SAND, moist, no odor, no sheen
									Sandy clayey SILT with gravel Gray, fine sandy and clayey SILT with gravel, moist, no odor, no sheen

NOTES

- Boring terminated at 20-feet bgs, backfilled with bentonite, and finished to match existing grade

KJ PNW MIDAS FAUNTLEROY BORING LOGS.GPJ KJ PNW.GDT 3/8/18

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION SW corner of property - see map		Boring Name B-05	
DRILLING COMPANY HOLT Services		DRILLER Louie Fehner	
DRILLING METHOD(S) Geoprobe 7800		DRILL BIT(S) SIZE 2-inch	
ISOLATION CASING N/A		FROM N/A TO N/A FT.	
BLANK CASING N/A		FROM N/A TO N/A FT.	
SLOTTED CASING N/A		FROM N/A TO N/A FT.	
SIZE AND TYPE OF FILTER PACK N/A		FROM N/A TO N/A FT.	
SEAL N/A		FROM N/A TO N/A FT.	
GROUT N/A		FROM N/A TO N/A FT.	
MEASURING PT. ELEVATION		TOTAL DEPTH 20.0 ft. bgs	
DATE STARTED 3/1/17		DATE COMPLETED 3/1/17	
INITIAL WATER DEPTH (FT) 15.0			
LOGGED BY N. Moxley (WA L.G. # 3024)			
SAMPLING METHODS macro core		WELL COMPLETION ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.	

SAMPLES			DEPTH (FEET)	SAMPLE NUMBER	BACKFILL DETAILS	PID (ppm)	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"							
	0								Air knife / vac clearance to 5-feet Brown, fine to medium SAND with gravel, concrete/asphalt fragments, cobbles, and trace silt
	3.5		5			0.5		ML	Sandy SILT with gravel Brown, fine sandy SILT with coarse sand and gravel (loose), wet (from perched water), no odor, no sheen
						1.0			Silty SAND Bluish gray, silty, fine SAND (dense), damp, no odor, no sheen
						2.6		SM	
						0.6			
			10					ML	Sandy SILT with gravel Brown, fine sandy SILT with gravel, moist, no odor, no sheen
	5			B-5 (12.0-13.0) Dup-1-soil		1.5			Silty SAND Gray, silty, fine to medium SAND, moist, no odor, no sheen
						106		SM	
								ML	SILT with sand Gray, SILT with fine sand, moist, no odor, no sheen
			15			9.3			Poorly graded SAND with silt Gray, fine to medium SAND with silt, moist to wet, no odor, no sheen
	5					3.6			
						2.4		SP/ SM	
						1.3			
						0.8			
			20	B-5 (19.0-20.0)					

NOTES

- Boring terminated at 20-feet bgs, backfilled with bentonite, and finished to match existing grade
- Reconnaissance groundwater sample 'B-5' collected from a temporary PVC well screen placed in the open borehole and screened from 10.0 - 20.0 feet bgs
- Duplicate reconnaissance groundwater sample 'Dup-1-GW' collected in conjunction with reconnaissance groundwater sample B-5.

KJ PNW MIDAS FAUNTEROY BORING LOGS.GPJ KJ PNW.GDT 3/8/18

Boring Log

Kennedy/Jenks Consultants

BORING LOCATION SW corner of property - see map						Boring Name <u>B-06</u>			
DRILLING COMPANY HOLT Services				DRILLER Louie Fehner		Project Name <u>Midas Fauntleroy</u>			
DRILLING METHOD(S) Geoprobe 7800				DRILL BIT(S) SIZE 2-inch		Project Number <u>1696059</u>			
ISOLATION CASING N/A				FROM <u>N/A</u> TO <u>N/A</u> FT.		MEASURING PT. ELEVATION		TOTAL DEPTH 6.0 ft. bgs	
BLANK CASING N/A				FROM <u>N/A</u> TO <u>N/A</u> FT.		DATE STARTED 3/1/17		DATE COMPLETED 3/1/17	
SLOTTED CASING N/A				FROM <u>N/A</u> TO <u>N/A</u> FT.		INITIAL WATER DEPTH (FT) N/A			
SIZE AND TYPE OF FILTER PACK N/A				FROM <u>N/A</u> TO <u>N/A</u> FT.		LOGGED BY N. Moxley (WA L.G. # 3024)			
SEAL N/A				FROM <u>N/A</u> TO <u>N/A</u> FT.		SAMPLING METHODS macro core		WELL COMPLETION ☐ SURFACE HOUSING ☐ STAND PIPE _____ FT.	
GROUT N/A				FROM <u>N/A</u> TO <u>N/A</u> FT.					

SAMPLES			DEPTH (FEET)	SAMPLE NUMBER	BACKFILL DETAILS	PID (ppm)	LITHOLOGY	USCS LOG	SAMPLE DESCRIPTION AND DRILLING REMARKS
TYPE	RECOV. (FEET)	PENETR. RESIST. BLOWS/6"							
	0		5						Air knife / vac clearance to 5-feet Brown, fine to medium SAND with gravel, concrete/asphalt fragments, cobbles, and trace silt
	0								no recovery Met refusal at 6-feet (concrete in drilling shoe)

NOTES

- Boring terminated at 6-feet bgs, backfilled with bentonite, and finished to match existing grade

KJ PNW MIDAS FAUNTLEROY BORING LOGS.GPJ KJ PNW.GDT 3/8/18

Appendix G

Investigation-Derived Waste Disposal Records

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. EXE	Manifest Doc. No. 474779-17	2. Page 1 of 1
3. Generator's Name and Mailing Address Washington State Department of Ecology 4457 Fauntleroy Way Southwest				
4. Generator's Phone (SEATTLE WA 98126 (253)835-6409				
5. Transporter 1 Company Name CASCADE DRILLING	6. US EPA ID Number CES06	A. Transporter's Phone (425)485-8908		
7. Transporter 2 Company Name BURLINGTON ENVIRONMENTAL, LLC	8. US EPA ID Number WAR000001743	B. Transporter's Phone (253)383-3044		
9. Designated Facility Name and Site Address BURLINGTON ENVIRONMENTAL, LLC. KENT 20245 77th Avenue South		C. Facility's Phone (253) 872-8030		
10. US EPA ID Number WAD991281767				
11. Waste Shipping Name and Description	12. Containers	13. Total Quantity	14. Unit	
	No. Type		Wt/Vol	
a. MATERIAL NOT REGULATED BY DOT (NON-HAZARDOUS) <i>Soil</i>	1 DM	200	P	
b. MATERIAL NOT REGULATED BY DOT (NON-HAZARDOUS) <i>Water</i>	1 DM	200	P	
c.				
d.				
D. Additional Descriptions for Materials Listed Above a) 846097-00 - NON-HAZARDOUS WASTE LIQUID - WAT05 (1) b) 846098-00 - NON-HAZARDOUS WASTE SOLID - LF07 (2)		E. Handling Codes for Wastes Listed Above <i>A) H070 B) H141</i>		
15. Special Handling Instructions and Additional Information PLEASE MAIL MANIFESTS TO ATTN: KYLE SATTERTHWAITE, CASCADE DRILLING, 35100 PACIFIC HWY SOUTH, FEDERAL WAY, WA 98003				
16. GENERATOR'S CERTIFICATION: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations." I also certify that all times listed above are true and correct.				
Printed/Typed Name <i>Katie Teague</i>		Signature <i>Katie Teague</i>		Month Day Year <i>4/19/17</i>
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name <i>Tim Watson</i>		Signature <i>Tim Watson</i>		Month Day Year <i>4/19/17</i>
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name <i>Cassidy Sullivan for Berr</i>		Signature <i>Cassidy Sullivan</i>		Month Day Year <i>4/19/17</i>
19. Discrepancy Indication Space				
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.				
Printed/Typed Name <i>Lamaras Cardona</i>		Signature <i>Lamaras Cardona</i>		Month Day Year <i>4/23/17</i>

ORIGINAL - RETURN TO GENERATOR

'17 APR 23 PM 7:58

Generator's Waste Profile 846097-00**Stericycle**

Environmental Solutions

Starts : 11 APR 2017

Expires : 31 JUL 2017

Status : PENDING

Sales Rep 1036 Seneca Benson

Acct Mngr 985 Chris Hunter

A: GENERATOR (673358) SITE INFORMATION

Washington State Department of Ecology
4457 Fauntleroy Way Southwest
SEATTLE, WA 98126

EPA EXE
NAICS 811111 Neshap N
Phone (253) 835-8409

B: CUSTOMER (30281) INFORMATION

CASCADE DRILLING LP
PO Box 1184
WOODINVILLE, WA 98072

> Contact Tom Haskins
TSDF Approval List No

C: WASTE INFORMATION

On File > MSDS No Analysis Yes Sample No

Waste Name NON-HAZARDOUS WASTE LIQUID
Process INVESTIGATION DERIVED WASTE FROM AN AUTO BODY/OIL CHANGE SHOP
Unused Commercial Product No Spill Residue No

D: PHYSICAL CHARACTERISTICS OF WASTE

Phys States	L-Liq	Top Color	brown	Odor	None	PH Range	4-10
		Mid Color		Layers	Single Phased	Free Liq %	100
		Bot Color		Spec Grav	0.8-1.0	Flash Test	Gen Knowledge
		% Ash	0	BTU/Lbs	0	Flash Rnge	NO FLASH
		% Water	100	% Halogens	0	Viscosity	Low
						Pumpable	Yes

E: CHEMICAL COMPOSITION OF WASTE

soil	(0 - 5 %)	water	(95 - 100 %)
PCB's 0	Cyanides 0	Phenolics 0	Sulfides 0
TOC >1%	VOC <500 PPM		Dioxins 0
			Information Provided By Laboratory

F: METALS METHOD

Gen Knowledge	Cadmium <1	Chromium <5	Silver <5	Zinc 0
Arsenic <5	Merc TCLP <0.2	Selenium <1	Nickel 0	Copper 0
Barium <100	Lead <5	Merc Tot <260	Thallium 0	Chrome-6

G: OTHER CHARACTERISTICS OF WASTE

Ign. Solid No	Oxidizer No	Explosive No	Shock Sensitive No	Cyanide Reactive No	Sulfide Reactive No
Explosive N/A	Asbestos N/A	Radioactive No	Water Reactive No	Reactive (Other) No	
Herbicides 0	Pesticides 0	Ammonia 0	Infectious No	Medical No	

H: EPA / STATE WASTE IDENTIFICATION

EPA Waste No	State Waste No	TSCA No	Waste Water No	Universal Waste No
Form W219	Source G49	Origin 1	SubPart CC No	NESHAPS No
				CERCLA No
				Debris No
				Reg. Organics No
EPA Codes				
State Codes				
UHC				
Categorical Discharge Standards No	CTW Category Oils			DW/EHW:

I: SHIPPING INFORMATION

Marine Pollutant No

Containers	DM Metal Drum	Qty to Ship Now	1	Projected Volume	1x55/Onetime
DOT Descrip	MATERIAL NOT REGULATED BY DOT (NON-HAZARDOUS)				

J: SPECIAL DISPOSAL INSTRUCTIONS

PLEASE PROCESS AS WAT05
Waste Categs WAT05

Generator's Waste Profile 846097-00**Stericycle**

Environmental Solutions

Starts : 11 APR 2017

Expires : 31 JUL 2017

Sales Rep 1036 Seneca Benson

Acct Mngr 985 Chris Hunter

Status : PENDING

GENERATOR CERTIFICATION

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted on this waste profile and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. By signing this waste profile, I am certifying that I am authorized to sign such documentation on behalf of the generator.

Signature

Printed Name

Title

Date

T. Cardona ^{for} *Ecology* *TCP* *Tamara Cardona* *Aquatics Unit* *4/19/17*
Signature Printed Name Title Sup. Date

Burlington Environmental, LLC maintains the appropriate permits for and will accept the dangerous waste the generator is shipping as required by WAC 173-303-290(3).

Generator's Waste Profile 846098-00**Stericycle**

Environmental Solutions

Starts : 11 APR 2017

Expires : 31 JUL 2017

Status : PENDING

Sales Rep 1036 Seneca Benson

Acct Mngr 985 Chris Hunter

A: GENERATOR (573358) SITE INFORMATION

Washington State Department of Ecology
4457 Fauntleroy Way Southwest
SEATTLE, WA 98126

> Contact Tom Haskins
TSDF Approval List No

EPA EXE

NAICS 811111

Neshap N

Phone (253) 835-6409

B: CUSTOMER (30281) INFORMATION

CASCADE DRILLING LP
PO Box 1184
WOODINVILLE, WA 98072

C: WASTE INFORMATION

On File >

MSDS No

Analysis Yes

Sample No

Waste Name NON-HAZARDOUS WASTE SOLID

Process INVESTIGATION DERIVED WASTE FROM AN AUTO SHOP/OIL CHANGE SHOP

Unused Commercial Product No Spill Residue No

D: PHYSICAL CHARACTERISTICS OF WASTE

Phys States S-Sol Top Color Brown

Mid Color

Bot Color

% Ash 0

% Water 0

Odor None

Layers Single Phased

Spec Grav Soil

BTU/Lbs 0

% Halogens 0

PH Range 4-10

Free Liq % 100

Flash Test Gen Knowledge

Flash Rnge NO FLASH

Viscosity High

Pumpable No

E: CHEMICAL COMPOSITION OF WASTE

Gravel, Debris (0 - 5 %) TPH-Gasoline
Soil (95 - 100 %)

(0 - 13000 ppm)

PCB's 0

Cyanides 0

Phenolics 0

Sulfides 0

Dioxins 0

TOC 13000

VOC 13000

Information Provided By Laboratory

F: METALS METHOD

Gen Knowledge

Cadmium <1

Chromium <5

Silver <5

Zinc 0

Arsenic <5

Merc TCLP <0.2

Selenium <1

Nickel 0

Copper 0

Barium <100

Lead <5

Merc Tot <260

Thallium 0

Chrome-6

G: OTHER CHARACTERISTICS OF WASTE

Ign. Solid No

Oxidizer No

Explosive No

Shock Sensitive No

Cyanide Reactive No

Sulfide Reactive No

Explosive N/A

Asbestos N/A

Radioactive No

Water Reactive No

Reactive (Other) No

Herbicides 0

Pesticides 0

Ammonia 0

Infectious No

Medical No

H: EPA / STATE WASTE IDENTIFICATION

EPA Waste No

State Waste No

TSCA No

Waste Water No

Universal Waste No

Form W301

Source G49

Origin 1

SubPart CC No

NESHAPS No

CERCLA No

Debris No

Reg. Organics No

EPA Codes

State Codes

UHC

Categorical Discharge Standards No

CTW Category N/A

DWEHW:

I: SHIPPING INFORMATION

Marine Pollutant No

Containers DM Metal Drum

Qty to Ship Now 2

Projected Volume 2x55/Monthly

DOT Descrip MATERIAL NOT REGULATED BY DOT (NON-HAZARDOUS)

J: SPECIAL DISPOSAL INSTRUCTIONS

PLEASE PROCESS AS LF07 DUE TO VOC

Waste Categs - LF07

Generator's Waste Profile 846098-00

**Stericycle**
Environmental SolutionsStarts : 11 APR 2017
Expires : 31 JUL 2017Sales Rep 1036 Seneca Benson
Acct Mngr 985 Chris Hunter

Status : PENDING

GENERATOR CERTIFICATION

I hereby represent and warrant that I have personally examined and am familiar with the information contained and submitted on this waste profile and all attached documents. Based on my inquiry and personal knowledge of those individuals responsible for supplying or obtaining the information, the information contained herein is true, accurate, and complete to the best of my knowledge and belief. Furthermore, no material fact has been omitted as to make this misleading. I understand that others may rely on this representation and warranty in the handling and processing of the waste material described herein. By signing this waste profile, I am certifying that I am authorized to sign such documentation on behalf of the generator.

Signature

Printed Name

Title

Date

J. Cardona ^{for} *Ecology* / *Tamara Cardona* *Aquatics Unit* *4/19/17*
TCR *Sup.*

Burlington Environmental, LLC maintains the appropriate permits for and will accept the dangerous waste the generator is shipping as required by WAC 173-303-290(3).

Appendix H

Laboratory Analytical Reports and Chain-of-Custody Documentation

Kennedy/Jenks Consultants requested groundwater data be re-issued by the laboratory to report values between the reporting detection limit and method detection limit. In cases where soil and groundwater data were reported together in the original report, the original report is also attached with the groundwater data reported to the reporting detection limit.

Kennedy/Jenks Consultants

Sample Delivery Group: L893941
Samples Received: 03/04/2017
Project Number: 1696059-00
Description: Midas Fauntleroy

Report To: Julia Schwarz, Nathan Moxley
116 Lupfer Avenue, Suite B
Whitefish, MT 59937

Entire Report Reviewed By:



Mark W. Beasley
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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⁸ Al: Accreditations & Locations	69
⁹ Sc: Chain of Custody	70



SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



B-1 (10.0-11.0) L893941-01 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 10:15

Received date/time
03/04/17 09:00

¹ Cp

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959281	1	03/10/17 09:15	03/10/17 09:48	KDW
Mercury by Method 7471A	WG958303	1	03/06/17 15:39	03/08/17 14:52	NJB
Metals (ICP) by Method 6010C	WG958474	1	03/08/17 09:32	03/08/17 13:15	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958703	1	03/01/17 10:15	03/08/17 05:55	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959350	1	03/01/17 10:15	03/09/17 16:07	DWR
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 21:50	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 13:02	CLG

² Tc

³ Ss

⁴ Cn

⁵ Sr

B-1 (19.0-20.0) L893941-02 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 10:20

Received date/time
03/04/17 09:00

⁶ Qc

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959281	1	03/10/17 09:15	03/10/17 09:48	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958703	1	03/01/17 10:20	03/08/17 06:17	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG958676	1	03/01/17 10:20	03/08/17 19:26	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 22:03	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 13:23	CLG

⁷ Gl

⁸ Al

⁹ Sc

B-1 L893941-03 GW

Collected by
Nathan Moxley

Collected date/time
03/01/17 10:35

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG958806	1	03/08/17 10:09	03/08/17 18:13	TRB
Metals (ICP) by Method 6010C	WG958726	1	03/07/17 18:13	03/07/17 20:12	ST
Volatile Organic Compounds (GC) by Method NWTPHGX	WG957976	1	03/09/17 17:37	03/09/17 17:37	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	1	03/08/17 19:46	03/08/17 19:46	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958334	1	03/06/17 23:05	03/10/17 00:41	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG958443	1	03/07/17 11:20	03/08/17 12:14	FMB

B-2 (13.0-14.0) L893941-04 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 12:30

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959281	1	03/10/17 09:15	03/10/17 09:48	KDW
Mercury by Method 7471A	WG958303	1	03/06/17 15:39	03/08/17 14:54	NJB
Metals (ICP) by Method 6010C	WG958474	1	03/08/17 09:32	03/08/17 13:17	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958703	1	03/01/17 12:30	03/08/17 06:40	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959350	1	03/01/17 12:30	03/09/17 16:28	DWR
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 22:16	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 14:28	CLG

B-2 (19.0-20.0) L893941-05 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 12:40

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958703	1	03/01/17 12:40	03/08/17 07:02	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG958676	1	03/01/17 12:40	03/08/17 19:46	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 22:30	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 14:49	CLG

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



B-3 (6.0-7.0) L893941-06 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 13:05

Received date/time
03/04/17 09:00

¹ Cp

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Mercury by Method 7471A	WG958303	1	03/06/17 15:39	03/08/17 14:57	NJB
Metals (ICP) by Method 6010C	WG958474	1	03/08/17 09:32	03/08/17 13:20	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958703	3850	03/01/17 13:05	03/08/17 09:15	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959350	770	03/01/17 13:05	03/09/17 21:44	DWR
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959350	7700	03/01/17 13:05	03/11/17 18:14	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	20	03/08/17 12:31	03/09/17 02:25	ACM
Polychlorinated Biphenyls (GC) by Method 8082	WG958814	1	03/09/17 08:17	03/09/17 17:14	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 15:11	CLG
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	20	03/09/17 09:33	03/14/17 17:40	CLG

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

B-3 (14.0-15.0) L893941-07 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 13:15

Received date/time
03/04/17 09:00

⁷ Gl

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958703	18.5	03/01/17 13:15	03/08/17 07:47	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG958676	25	03/01/17 13:15	03/08/17 20:05	JHH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 22:43	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 15:32	CLG

⁸ Al

⁹ Sc

B-4 (6.0-7.0) L893941-08 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 13:45

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Mercury by Method 7471A	WG958303	1	03/06/17 15:39	03/08/17 14:59	NJB
Metals (ICP) by Method 6010C	WG958474	1	03/08/17 09:32	03/08/17 13:23	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958703	720	03/01/17 13:45	03/08/17 08:09	LRL
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959350	72	03/01/17 13:45	03/11/17 17:15	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 22:55	ACM
Polychlorinated Biphenyls (GC) by Method 8082	WG958814	1	03/09/17 08:17	03/09/17 17:28	JNS
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 15:53	CLG

B-4 (11.0-12.0) L893941-09 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 13:50

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958705	1	03/01/17 13:50	03/13/17 13:01	BMB
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959355	18.5	03/01/17 13:50	03/09/17 13:11	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 23:22	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 16:15	CLG

B-5 (12.0-13.0) L893941-10 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 14:30

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Mercury by Method 7471A	WG958303	1	03/06/17 15:39	03/08/17 15:38	NJB
Metals (ICP) by Method 6010C	WG958474	1	03/08/17 09:32	03/08/17 13:25	CCE

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



B-5 (12.0-13.0) L893941-10 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 14:30

Received date/time
03/04/17 09:00

¹ Cp

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958705	73	03/01/17 14:30	03/08/17 15:37	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959350	18.25	03/01/17 14:30	03/11/17 17:35	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 23:48	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 16:36	CLG

² Tc

³ Ss

⁴ Cn

B-5 (19.0-20.0) L893941-11 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 14:40

Received date/time
03/04/17 09:00

⁵ Sr

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958705	1	03/01/17 14:40	03/08/17 15:59	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG958676	1	03/01/17 14:40	03/13/17 17:04	BMB
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/08/17 23:35	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 16:57	CLG

⁶ Qc

⁷ Gl

⁸ Al

B-5 L893941-12 GW

Collected by
Nathan Moxley

Collected date/time
03/01/17 14:50

Received date/time
03/04/17 09:00

⁹ Sc

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG958806	1	03/08/17 10:09	03/08/17 19:00	TRB
Metals (ICP) by Method 6010C	WG958726	1	03/07/17 18:13	03/07/17 20:25	ST
Volatile Organic Compounds (GC) by Method NWTPHGX	WG957976	1	03/09/17 17:59	03/09/17 17:59	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	1	03/08/17 20:09	03/08/17 20:09	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	10	03/10/17 05:58	03/10/17 05:58	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958334	2	03/06/17 23:05	03/08/17 20:12	TRF
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG958443	1	03/07/17 11:20	03/08/17 12:37	FMB

DUP-1-SOIL L893941-13 Solid

Collected by
Nathan Moxley

Collected date/time
03/01/17 00:00

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG959282	1	03/09/17 09:09	03/09/17 09:17	KDW
Mercury by Method 7471A	WG958303	1	03/06/17 15:39	03/08/17 15:40	NJB
Metals (ICP) by Method 6010C	WG958474	1	03/08/17 09:32	03/08/17 13:28	CCE
Volatile Organic Compounds (GC) by Method NWTPHGX	WG958705	1	03/01/17 00:00	03/08/17 16:22	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959350	1	03/01/17 00:00	03/09/17 16:49	DWR
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958691	1	03/08/17 12:31	03/09/17 00:39	ACM
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG959087	1	03/09/17 09:33	03/14/17 17:19	CLG

DUP-1-GW L893941-14 GW

Collected by
Nathan Moxley

Collected date/time
03/01/17 00:00

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG958806	1	03/08/17 10:09	03/08/17 19:03	TRB
Metals (ICP) by Method 6010C	WG958726	1	03/07/17 18:13	03/07/17 20:28	ST
Volatile Organic Compounds (GC) by Method NWTPHGX	WG957976	1	03/09/17 18:21	03/09/17 18:21	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	1	03/08/17 20:32	03/08/17 20:32	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	10	03/10/17 06:14	03/10/17 06:14	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958334	2	03/06/17 23:05	03/08/17 20:28	TRF
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG958443	1	03/07/17 11:20	03/08/17 13:00	FMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Mark W. Beasley
Technical Service Representative

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	03/10/2017 09:48	WG959281

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.00321	0.0229	1	03/08/2017 14:52	WG958303

Metals (ICP) by Method 6010C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.53	J	0.745	2.29	1	03/08/2017 13:15	WG958474
Barium	39.1		0.195	0.573	1	03/08/2017 13:15	WG958474
Cadmium	0.0819	J	0.0802	0.573	1	03/08/2017 13:15	WG958474
Chromium	23.7		0.160	1.15	1	03/08/2017 13:15	WG958474
Lead	1.67		0.218	0.573	1	03/08/2017 13:15	WG958474
Selenium	U		0.848	2.29	1	03/08/2017 13:15	WG958474
Silver	U		0.321	1.15	1	03/08/2017 13:15	WG958474

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	0.292		0.0389	0.115	1	03/08/2017 05:55	WG958703
(S) a,a,a-Trifluorotoluene(FID)	89.7			77.0-120		03/08/2017 05:55	WG958703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0115	0.0573	1	03/09/2017 16:07	WG959350
Acrylonitrile	U		0.00205	0.0115	1	03/09/2017 16:07	WG959350
Benzene	0.000625	J	0.000309	0.00115	1	03/09/2017 16:07	WG959350
Bromobenzene	U		0.000325	0.00115	1	03/09/2017 16:07	WG959350
Bromodichloromethane	U		0.000291	0.00115	1	03/09/2017 16:07	WG959350
Bromoform	U		0.000486	0.00115	1	03/09/2017 16:07	WG959350
Bromomethane	U		0.00154	0.00573	1	03/09/2017 16:07	WG959350
n-Butylbenzene	0.00160		0.000296	0.00115	1	03/09/2017 16:07	WG959350
sec-Butylbenzene	0.00220		0.000230	0.00115	1	03/09/2017 16:07	WG959350
tert-Butylbenzene	U		0.000236	0.00115	1	03/09/2017 16:07	WG959350
Carbon tetrachloride	U		0.000376	0.00115	1	03/09/2017 16:07	WG959350
Chlorobenzene	U		0.000243	0.00115	1	03/09/2017 16:07	WG959350
Chlorodibromomethane	U		0.000428	0.00115	1	03/09/2017 16:07	WG959350
Chloroethane	U		0.00108	0.00573	1	03/09/2017 16:07	WG959350
Chloroform	U		0.000262	0.00573	1	03/09/2017 16:07	WG959350
Chloromethane	U		0.000430	0.00287	1	03/09/2017 16:07	WG959350
2-Chlorotoluene	U		0.000345	0.00115	1	03/09/2017 16:07	WG959350
4-Chlorotoluene	U		0.000275	0.00115	1	03/09/2017 16:07	WG959350
1,2-Dibromo-3-Chloropropane	U		0.00120	0.00573	1	03/09/2017 16:07	WG959350
1,2-Dibromoethane	U		0.000393	0.00115	1	03/09/2017 16:07	WG959350
Dibromomethane	U		0.000438	0.00115	1	03/09/2017 16:07	WG959350
1,2-Dichlorobenzene	U		0.000350	0.00115	1	03/09/2017 16:07	WG959350
1,3-Dichlorobenzene	U		0.000274	0.00115	1	03/09/2017 16:07	WG959350
1,4-Dichlorobenzene	U		0.000259	0.00115	1	03/09/2017 16:07	WG959350
Dichlorodifluoromethane	U		0.000817	0.00573	1	03/09/2017 16:07	WG959350
1,1-Dichloroethane	U		0.000228	0.00115	1	03/09/2017 16:07	WG959350
1,2-Dichloroethane	U		0.000304	0.00115	1	03/09/2017 16:07	WG959350



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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000347	0.00115	1	03/09/2017 16:07	WG959350
cis-1,2-Dichloroethene	U		0.000269	0.00115	1	03/09/2017 16:07	WG959350
trans-1,2-Dichloroethene	U		0.000303	0.00115	1	03/09/2017 16:07	WG959350
1,2-Dichloropropane	U		0.000410	0.00115	1	03/09/2017 16:07	WG959350
1,1-Dichloropropene	U		0.000363	0.00115	1	03/09/2017 16:07	WG959350
1,3-Dichloropropane	U		0.000237	0.00115	1	03/09/2017 16:07	WG959350
cis-1,3-Dichloropropene	U		0.000300	0.00115	1	03/09/2017 16:07	WG959350
trans-1,3-Dichloropropene	U		0.000306	0.00115	1	03/09/2017 16:07	WG959350
2,2-Dichloropropane	U		0.000320	0.00115	1	03/09/2017 16:07	WG959350
Di-isopropyl ether	U		0.000284	0.00115	1	03/09/2017 16:07	WG959350
Ethylbenzene	0.00423		0.000340	0.00115	1	03/09/2017 16:07	WG959350
Hexachloro-1,3-butadiene	U		0.000392	0.00115	1	03/09/2017 16:07	WG959350
Isopropylbenzene	0.00549		0.000279	0.00115	1	03/09/2017 16:07	WG959350
p-Isopropyltoluene	0.000254	J	0.000234	0.00115	1	03/09/2017 16:07	WG959350
2-Butanone (MEK)	U		0.00536	0.0115	1	03/09/2017 16:07	WG959350
Methylene Chloride	U		0.00115	0.00573	1	03/09/2017 16:07	WG959350
4-Methyl-2-pentanone (MIBK)	U		0.00215	0.0115	1	03/09/2017 16:07	WG959350
Methyl tert-butyl ether	U		0.000243	0.00115	1	03/09/2017 16:07	WG959350
Naphthalene	U		0.00115	0.00573	1	03/09/2017 16:07	WG959350
n-Propylbenzene	0.0177		0.000236	0.00115	1	03/09/2017 16:07	WG959350
Styrene	U		0.000268	0.00115	1	03/09/2017 16:07	WG959350
1,1,1,2-Tetrachloroethane	U		0.000303	0.00115	1	03/09/2017 16:07	WG959350
1,1,2,2-Tetrachloroethane	U		0.000418	0.00115	1	03/09/2017 16:07	WG959350
1,1,2-Trichlorotrifluoroethane	U		0.000418	0.00115	1	03/09/2017 16:07	WG959350
Tetrachloroethene	U		0.000316	0.00115	1	03/09/2017 16:07	WG959350
Toluene	U		0.000497	0.00573	1	03/09/2017 16:07	WG959350
1,2,3-Trichlorobenzene	U		0.000351	0.00115	1	03/09/2017 16:07	WG959350
1,2,4-Trichlorobenzene	U		0.000445	0.00115	1	03/09/2017 16:07	WG959350
1,1,1-Trichloroethane	U		0.000328	0.00115	1	03/09/2017 16:07	WG959350
1,1,2-Trichloroethane	U		0.000317	0.00115	1	03/09/2017 16:07	WG959350
Trichloroethene	U		0.000320	0.00115	1	03/09/2017 16:07	WG959350
Trichlorofluoromethane	U		0.000438	0.00573	1	03/09/2017 16:07	WG959350
1,2,3-Trichloropropane	U		0.000849	0.00287	1	03/09/2017 16:07	WG959350
1,2,4-Trimethylbenzene	0.000850	J	0.000242	0.00115	1	03/09/2017 16:07	WG959350
1,2,3-Trimethylbenzene	0.0112		0.000329	0.00115	1	03/09/2017 16:07	WG959350
Vinyl chloride	U		0.000334	0.00115	1	03/09/2017 16:07	WG959350
1,3,5-Trimethylbenzene	0.00342		0.000305	0.00115	1	03/09/2017 16:07	WG959350
Xylenes, Total	0.00440		0.000800	0.00344	1	03/09/2017 16:07	WG959350
(S) Toluene-d8	97.9			80.0-120		03/09/2017 16:07	WG959350
(S) Dibromofluoromethane	106			74.0-131		03/09/2017 16:07	WG959350
(S) 4-Bromofluorobenzene	94.0			64.0-132		03/09/2017 16:07	WG959350

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.51	4.58	1	03/08/2017 21:50	WG958691
Residual Range Organics (RRO)	U		3.78	11.5	1	03/08/2017 21:50	WG958691
(S) o-Terphenyl	103			18.0-148		03/08/2017 21:50	WG958691



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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Acenaphthene	0.000697	J	0.000688	0.00688	1	03/14/2017 13:02	WG959087
Acenaphthylene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Benzo(a)anthracene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Benzo(a)pyrene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Benzo(b)fluoranthene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Benzo(g,h,i)perylene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Benzo(k)fluoranthene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Chrysene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Dibenz(a,h)anthracene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Fluoranthene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Fluorene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Naphthalene	0.00846	J	0.00229	0.0229	1	03/14/2017 13:02	WG959087
Phenanthrene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
Pyrene	U		0.000688	0.00688	1	03/14/2017 13:02	WG959087
1-Methylnaphthalene	0.00588	J	0.00229	0.0229	1	03/14/2017 13:02	WG959087
2-Methylnaphthalene	0.0117	J	0.00229	0.0229	1	03/14/2017 13:02	WG959087
2-Chloronaphthalene	U		0.00229	0.0229	1	03/14/2017 13:02	WG959087
(S) Nitrobenzene-d5	91.8			14.0-149		03/14/2017 13:02	WG959087
(S) 2-Fluorobiphenyl	86.3			34.0-125		03/14/2017 13:02	WG959087
(S) p-Terphenyl-d14	96.3			23.0-120		03/14/2017 13:02	WG959087

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	03/10/2017 09:48	WG959281

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	0.0600	<u>J</u>	0.0378	0.112	1	03/08/2017 06:17	WG958703
(S) a,a,a-Trifluorotoluene(FID)	90.7			77.0-120		03/08/2017 06:17	WG958703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000310	<u>J</u>	0.000301	0.00112	1	03/08/2017 19:26	WG958676
Toluene	U		0.000484	0.00558	1	03/08/2017 19:26	WG958676
Ethylbenzene	U		0.000332	0.00112	1	03/08/2017 19:26	WG958676
Total Xylenes	U		0.000779	0.00335	1	03/08/2017 19:26	WG958676
(S) Toluene-d8	103			80.0-120		03/08/2017 19:26	WG958676
(S) Dibromofluoromethane	107			74.0-131		03/08/2017 19:26	WG958676
(S) a,a,a-Trifluorotoluene	99.3			80.0-120		03/08/2017 19:26	WG958676
(S) 4-Bromofluorobenzene	98.0			64.0-132		03/08/2017 19:26	WG958676

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.47	4.47	1	03/08/2017 22:03	WG958691
Residual Range Organics (RRO)	U		3.68	11.2	1	03/08/2017 22:03	WG958691
(S) o-Terphenyl	103			18.0-148		03/08/2017 22:03	WG958691

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Acenaphthene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Acenaphthylene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Benzo(a)anthracene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Benzo(a)pyrene	U	<u>J3</u>	0.000670	0.00670	1	03/14/2017 13:23	WG959087
Benzo(b)fluoranthene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Benzo(g,h,i)perylene	U	<u>J3</u>	0.000670	0.00670	1	03/14/2017 13:23	WG959087
Benzo(k)fluoranthene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Chrysene	U	<u>J3</u>	0.000670	0.00670	1	03/14/2017 13:23	WG959087
Dibenz(a,h)anthracene	U	<u>J3</u>	0.000670	0.00670	1	03/14/2017 13:23	WG959087
Fluoranthene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Fluorene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Indeno(1,2,3-cd)pyrene	U	<u>J3</u>	0.000670	0.00670	1	03/14/2017 13:23	WG959087
Naphthalene	0.00652	<u>J</u>	0.00223	0.0223	1	03/14/2017 13:23	WG959087
Phenanthrene	U		0.000670	0.00670	1	03/14/2017 13:23	WG959087
Pyrene	U	<u>J3</u>	0.000670	0.00670	1	03/14/2017 13:23	WG959087
1-Methylnaphthalene	U		0.00223	0.0223	1	03/14/2017 13:23	WG959087
2-Methylnaphthalene	U		0.00223	0.0223	1	03/14/2017 13:23	WG959087
2-Chloronaphthalene	U		0.00223	0.0223	1	03/14/2017 13:23	WG959087
(S) Nitrobenzene-d5	89.7			14.0-149		03/14/2017 13:23	WG959087
(S) 2-Fluorobiphenyl	83.4			34.0-125		03/14/2017 13:23	WG959087
(S) p-Terphenyl-d14	90.8			23.0-120		03/14/2017 13:23	WG959087



Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0490	0.200	1	03/08/2017 18:13	WG958806

Metals (ICP) by Method 6010C

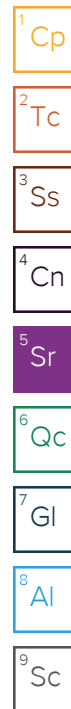
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic,Dissolved	U		6.50	10.0	1	03/07/2017 20:12	WG958726
Barium,Dissolved	39.9		1.70	5.00	1	03/07/2017 20:12	WG958726
Cadmium,Dissolved	U		0.700	2.00	1	03/07/2017 20:12	WG958726
Chromium,Dissolved	U		1.40	10.0	1	03/07/2017 20:12	WG958726
Lead,Dissolved	U		1.90	5.00	1	03/07/2017 20:12	WG958726
Selenium,Dissolved	U		7.40	10.0	1	03/07/2017 20:12	WG958726
Silver,Dissolved	U		2.80	5.00	1	03/07/2017 20:12	WG958726

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	2440		31.6	100	1	03/09/2017 17:37	WG957976
(S) a,a,a-Trifluorotoluene(FID) 106				77.0-122		03/09/2017 17:37	WG957976

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	03/08/2017 19:46	WG959106
Acrolein	U	J4	8.87	50.0	1	03/08/2017 19:46	WG959106
Acrylonitrile	U		1.87	10.0	1	03/08/2017 19:46	WG959106
Benzene	27.3		0.331	1.00	1	03/08/2017 19:46	WG959106
Bromobenzene	U		0.352	1.00	1	03/08/2017 19:46	WG959106
Bromodichloromethane	U		0.380	1.00	1	03/08/2017 19:46	WG959106
Bromoform	U		0.469	1.00	1	03/08/2017 19:46	WG959106
Bromomethane	U		0.866	5.00	1	03/08/2017 19:46	WG959106
n-Butylbenzene	6.25		0.361	1.00	1	03/08/2017 19:46	WG959106
sec-Butylbenzene	7.74		0.365	1.00	1	03/08/2017 19:46	WG959106
tert-Butylbenzene	U		0.399	1.00	1	03/08/2017 19:46	WG959106
Carbon tetrachloride	U		0.379	1.00	1	03/08/2017 19:46	WG959106
Chlorobenzene	U		0.348	1.00	1	03/08/2017 19:46	WG959106
Chlorodibromomethane	U		0.327	1.00	1	03/08/2017 19:46	WG959106
Chloroethane	U		0.453	5.00	1	03/08/2017 19:46	WG959106
Chloroform	7.06		0.324	5.00	1	03/08/2017 19:46	WG959106
Chloromethane	U		0.276	2.50	1	03/08/2017 19:46	WG959106
2-Chlorotoluene	U		0.375	1.00	1	03/08/2017 19:46	WG959106
4-Chlorotoluene	U		0.351	1.00	1	03/08/2017 19:46	WG959106
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/08/2017 19:46	WG959106
1,2-Dibromoethane	U		0.381	1.00	1	03/08/2017 19:46	WG959106
Dibromomethane	U		0.346	1.00	1	03/08/2017 19:46	WG959106
1,2-Dichlorobenzene	U		0.349	1.00	1	03/08/2017 19:46	WG959106
1,3-Dichlorobenzene	U		0.220	1.00	1	03/08/2017 19:46	WG959106
1,4-Dichlorobenzene	U		0.274	1.00	1	03/08/2017 19:46	WG959106
Dichlorodifluoromethane	U		0.551	5.00	1	03/08/2017 19:46	WG959106
1,1-Dichloroethane	U		0.259	1.00	1	03/08/2017 19:46	WG959106
1,2-Dichloroethane	U		0.361	1.00	1	03/08/2017 19:46	WG959106
1,1-Dichloroethene	U		0.398	1.00	1	03/08/2017 19:46	WG959106
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/08/2017 19:46	WG959106
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/08/2017 19:46	WG959106
1,2-Dichloropropane	U		0.306	1.00	1	03/08/2017 19:46	WG959106





Collected date/time: 03/01/17 10:35

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.352	1.00	1	03/08/2017 19:46	WG959106
1,3-Dichloropropane	U		0.366	1.00	1	03/08/2017 19:46	WG959106
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/08/2017 19:46	WG959106
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/08/2017 19:46	WG959106
2,2-Dichloropropane	U		0.321	1.00	1	03/08/2017 19:46	WG959106
Di-isopropyl ether	U		0.320	1.00	1	03/08/2017 19:46	WG959106
Ethylbenzene	109		0.384	1.00	1	03/08/2017 19:46	WG959106
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/08/2017 19:46	WG959106
Isopropylbenzene	54.8		0.326	1.00	1	03/08/2017 19:46	WG959106
p-Isopropyltoluene	1.71		0.350	1.00	1	03/08/2017 19:46	WG959106
2-Butanone (MEK)	U		3.93	10.0	1	03/08/2017 19:46	WG959106
Methylene Chloride	U		1.00	5.00	1	03/08/2017 19:46	WG959106
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	03/08/2017 19:46	WG959106
Methyl tert-butyl ether	U		0.367	1.00	1	03/08/2017 19:46	WG959106
Naphthalene	5.46		1.00	5.00	1	03/08/2017 19:46	WG959106
n-Propylbenzene	155		0.349	1.00	1	03/08/2017 19:46	WG959106
Styrene	U		0.307	1.00	1	03/08/2017 19:46	WG959106
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/08/2017 19:46	WG959106
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/08/2017 19:46	WG959106
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/08/2017 19:46	WG959106
Tetrachloroethene	U		0.372	1.00	1	03/08/2017 19:46	WG959106
Toluene	4.09		0.412	1.00	1	03/08/2017 19:46	WG959106
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/08/2017 19:46	WG959106
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/08/2017 19:46	WG959106
1,1,1-Trichloroethane	U		0.319	1.00	1	03/08/2017 19:46	WG959106
1,1,2-Trichloroethane	U		0.383	1.00	1	03/08/2017 19:46	WG959106
Trichloroethene	U		0.398	1.00	1	03/08/2017 19:46	WG959106
Trichlorofluoromethane	U		1.20	5.00	1	03/08/2017 19:46	WG959106
1,2,3-Trichloropropane	U		0.807	2.50	1	03/08/2017 19:46	WG959106
1,2,4-Trimethylbenzene	1.65		0.373	1.00	1	03/08/2017 19:46	WG959106
1,2,3-Trimethylbenzene	12.8		0.321	1.00	1	03/08/2017 19:46	WG959106
1,3,5-Trimethylbenzene	15.3		0.387	1.00	1	03/08/2017 19:46	WG959106
Vinyl chloride	U		0.259	1.00	1	03/08/2017 19:46	WG959106
Xylenes, Total	71.5		1.06	3.00	1	03/08/2017 19:46	WG959106
(S) Toluene-d8	107			80.0-120		03/08/2017 19:46	WG959106
(S) Dibromofluoromethane	107			76.0-123		03/08/2017 19:46	WG959106
(S) 4-Bromofluorobenzene	89.0			80.0-120		03/08/2017 19:46	WG959106

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	599		82.5	250	1	03/10/2017 00:41	WG958334
Residual Range Organics (RRO)	U		165	500	1	03/10/2017 00:41	WG958334
(S) o-Terphenyl	121			52.0-156		03/10/2017 00:41	WG958334

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	03/08/2017 12:14	WG958443
Acenaphthene	0.0719		0.0100	0.0500	1	03/08/2017 12:14	WG958443
Acenaphthylene	U		0.0120	0.0500	1	03/08/2017 12:14	WG958443
Benzo(a)anthracene	U		0.00410	0.0500	1	03/08/2017 12:14	WG958443
Benzo(a)pyrene	U		0.0116	0.0500	1	03/08/2017 12:14	WG958443
Benzo(b)fluoranthene	U		0.00212	0.0500	1	03/08/2017 12:14	WG958443
Benzo(g,h,i)perylene	U		0.00227	0.0500	1	03/08/2017 12:14	WG958443



Collected date/time: 03/01/17 10:35

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	U		0.0136	0.0500	1	03/08/2017 12:14	WG958443
Chrysene	U		0.0108	0.0500	1	03/08/2017 12:14	WG958443
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	03/08/2017 12:14	WG958443
Fluoranthene	U		0.0157	0.0500	1	03/08/2017 12:14	WG958443
Fluorene	0.108		0.00850	0.0500	1	03/08/2017 12:14	WG958443
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	03/08/2017 12:14	WG958443
Naphthalene	5.24		0.0198	0.250	1	03/08/2017 12:14	WG958443
Phenanthrene	0.0229	J	0.00820	0.0500	1	03/08/2017 12:14	WG958443
Pyrene	U		0.0117	0.0500	1	03/08/2017 12:14	WG958443
1-Methylnaphthalene	32.0		0.00821	0.250	1	03/08/2017 12:14	WG958443
2-Methylnaphthalene	46.7		0.00902	0.250	1	03/08/2017 12:14	WG958443
2-Chloronaphthalene	U		0.00647	0.250	1	03/08/2017 12:14	WG958443
(S) Nitrobenzene-d5	144			31.0-160		03/08/2017 12:14	WG958443
(S) 2-Fluorobiphenyl	96.8			48.0-148		03/08/2017 12:14	WG958443
(S) p-Terphenyl-d14	81.0			37.0-146		03/08/2017 12:14	WG958443

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	03/10/2017 09:48	WG959281

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.00312	0.0223	1	03/08/2017 14:54	WG958303

Metals (ICP) by Method 6010C

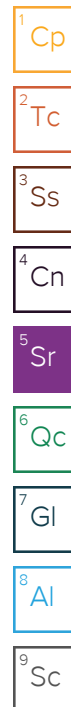
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.37	J	0.724	2.23	1	03/08/2017 13:17	WG958474
Barium	59.9		0.189	0.557	1	03/08/2017 13:17	WG958474
Cadmium	0.0985	J	0.0779	0.557	1	03/08/2017 13:17	WG958474
Chromium	31.7		0.156	1.11	1	03/08/2017 13:17	WG958474
Lead	2.44		0.212	0.557	1	03/08/2017 13:17	WG958474
Selenium	U		0.824	2.23	1	03/08/2017 13:17	WG958474
Silver	U		0.312	1.11	1	03/08/2017 13:17	WG958474

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0377	0.111	1	03/08/2017 06:40	WG958703
(S) a,a,a-Trifluorotoluene(FID)	90.7			77.0-120		03/08/2017 06:40	WG958703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0111	0.0557	1	03/09/2017 16:28	WG959350
Acrylonitrile	U		0.00199	0.0111	1	03/09/2017 16:28	WG959350
Benzene	U		0.000301	0.00111	1	03/09/2017 16:28	WG959350
Bromobenzene	U		0.000316	0.00111	1	03/09/2017 16:28	WG959350
Bromodichloromethane	U		0.000283	0.00111	1	03/09/2017 16:28	WG959350
Bromoform	U		0.000472	0.00111	1	03/09/2017 16:28	WG959350
Bromomethane	U		0.00149	0.00557	1	03/09/2017 16:28	WG959350
n-Butylbenzene	U		0.000287	0.00111	1	03/09/2017 16:28	WG959350
sec-Butylbenzene	U		0.000224	0.00111	1	03/09/2017 16:28	WG959350
tert-Butylbenzene	U		0.000229	0.00111	1	03/09/2017 16:28	WG959350
Carbon tetrachloride	U		0.000365	0.00111	1	03/09/2017 16:28	WG959350
Chlorobenzene	U		0.000236	0.00111	1	03/09/2017 16:28	WG959350
Chlorodibromomethane	U		0.000415	0.00111	1	03/09/2017 16:28	WG959350
Chloroethane	U		0.00105	0.00557	1	03/09/2017 16:28	WG959350
Chloroform	U		0.000255	0.00557	1	03/09/2017 16:28	WG959350
Chloromethane	U		0.000417	0.00278	1	03/09/2017 16:28	WG959350
2-Chlorotoluene	U		0.000335	0.00111	1	03/09/2017 16:28	WG959350
4-Chlorotoluene	U		0.000267	0.00111	1	03/09/2017 16:28	WG959350
1,2-Dibromo-3-Chloropropane	U		0.00117	0.00557	1	03/09/2017 16:28	WG959350
1,2-Dibromoethane	U		0.000382	0.00111	1	03/09/2017 16:28	WG959350
Dibromomethane	U		0.000425	0.00111	1	03/09/2017 16:28	WG959350
1,2-Dichlorobenzene	U		0.000340	0.00111	1	03/09/2017 16:28	WG959350
1,3-Dichlorobenzene	U		0.000266	0.00111	1	03/09/2017 16:28	WG959350
1,4-Dichlorobenzene	U		0.000252	0.00111	1	03/09/2017 16:28	WG959350
Dichlorodifluoromethane	U		0.000794	0.00557	1	03/09/2017 16:28	WG959350
1,1-Dichloroethane	U		0.000222	0.00111	1	03/09/2017 16:28	WG959350
1,2-Dichloroethane	U		0.000295	0.00111	1	03/09/2017 16:28	WG959350





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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000337	0.00111	1	03/09/2017 16:28	WG959350
cis-1,2-Dichloroethene	U		0.000262	0.00111	1	03/09/2017 16:28	WG959350
trans-1,2-Dichloroethene	U		0.000294	0.00111	1	03/09/2017 16:28	WG959350
1,2-Dichloropropane	U		0.000399	0.00111	1	03/09/2017 16:28	WG959350
1,1-Dichloropropene	U		0.000353	0.00111	1	03/09/2017 16:28	WG959350
1,3-Dichloropropane	U		0.000230	0.00111	1	03/09/2017 16:28	WG959350
cis-1,3-Dichloropropene	U		0.000292	0.00111	1	03/09/2017 16:28	WG959350
trans-1,3-Dichloropropene	U		0.000297	0.00111	1	03/09/2017 16:28	WG959350
2,2-Dichloropropane	U		0.000311	0.00111	1	03/09/2017 16:28	WG959350
Di-isopropyl ether	U		0.000276	0.00111	1	03/09/2017 16:28	WG959350
Ethylbenzene	U		0.000331	0.00111	1	03/09/2017 16:28	WG959350
Hexachloro-1,3-butadiene	U		0.000381	0.00111	1	03/09/2017 16:28	WG959350
Isopropylbenzene	U		0.000271	0.00111	1	03/09/2017 16:28	WG959350
p-Isopropyltoluene	U		0.000227	0.00111	1	03/09/2017 16:28	WG959350
2-Butanone (MEK)	U		0.00521	0.0111	1	03/09/2017 16:28	WG959350
Methylene Chloride	U		0.00111	0.00557	1	03/09/2017 16:28	WG959350
4-Methyl-2-pentanone (MIBK)	U		0.00209	0.0111	1	03/09/2017 16:28	WG959350
Methyl tert-butyl ether	U		0.000236	0.00111	1	03/09/2017 16:28	WG959350
Naphthalene	U		0.00111	0.00557	1	03/09/2017 16:28	WG959350
n-Propylbenzene	U		0.000229	0.00111	1	03/09/2017 16:28	WG959350
Styrene	U		0.000261	0.00111	1	03/09/2017 16:28	WG959350
1,1,1,2-Tetrachloroethane	U		0.000294	0.00111	1	03/09/2017 16:28	WG959350
1,1,2,2-Tetrachloroethane	U		0.000406	0.00111	1	03/09/2017 16:28	WG959350
1,1,2-Trichlorotrifluoroethane	U		0.000406	0.00111	1	03/09/2017 16:28	WG959350
Tetrachloroethene	U		0.000307	0.00111	1	03/09/2017 16:28	WG959350
Toluene	U		0.000483	0.00557	1	03/09/2017 16:28	WG959350
1,2,3-Trichlorobenzene	U		0.000341	0.00111	1	03/09/2017 16:28	WG959350
1,2,4-Trichlorobenzene	U		0.000432	0.00111	1	03/09/2017 16:28	WG959350
1,1,1-Trichloroethane	U		0.000318	0.00111	1	03/09/2017 16:28	WG959350
1,1,2-Trichloroethane	U		0.000308	0.00111	1	03/09/2017 16:28	WG959350
Trichloroethene	U		0.000311	0.00111	1	03/09/2017 16:28	WG959350
Trichlorofluoromethane	U		0.000425	0.00557	1	03/09/2017 16:28	WG959350
1,2,3-Trichloropropane	U		0.000825	0.00278	1	03/09/2017 16:28	WG959350
1,2,4-Trimethylbenzene	U		0.000235	0.00111	1	03/09/2017 16:28	WG959350
1,2,3-Trimethylbenzene	U		0.000320	0.00111	1	03/09/2017 16:28	WG959350
Vinyl chloride	U		0.000324	0.00111	1	03/09/2017 16:28	WG959350
1,3,5-Trimethylbenzene	U		0.000296	0.00111	1	03/09/2017 16:28	WG959350
Xylenes, Total	U		0.000777	0.00334	1	03/09/2017 16:28	WG959350
(S) Toluene-d8	97.2			80.0-120		03/09/2017 16:28	WG959350
(S) Dibromofluoromethane	106			74.0-131		03/09/2017 16:28	WG959350
(S) 4-Bromofluorobenzene	93.2			64.0-132		03/09/2017 16:28	WG959350

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.47	4.45	1	03/08/2017 22:16	WG958691
Residual Range Organics (RRO)	U		3.67	11.1	1	03/08/2017 22:16	WG958691
(S) o-Terphenyl	99.2			18.0-148		03/08/2017 22:16	WG958691



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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Acenaphthene	0.00102	J	0.000668	0.00668	1	03/14/2017 14:28	WG959087
Acenaphthylene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Benzo(a)anthracene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Benzo(a)pyrene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Benzo(b)fluoranthene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Benzo(g,h,i)perylene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Benzo(k)fluoranthene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Chrysene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Dibenz(a,h)anthracene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Fluoranthene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Fluorene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
Naphthalene	0.00534	J	0.00223	0.0223	1	03/14/2017 14:28	WG959087
Phenanthrene	0.000743	J	0.000668	0.00668	1	03/14/2017 14:28	WG959087
Pyrene	U		0.000668	0.00668	1	03/14/2017 14:28	WG959087
1-Methylnaphthalene	U		0.00223	0.0223	1	03/14/2017 14:28	WG959087
2-Methylnaphthalene	U		0.00223	0.0223	1	03/14/2017 14:28	WG959087
2-Chloronaphthalene	U		0.00223	0.0223	1	03/14/2017 14:28	WG959087
(S) Nitrobenzene-d5	78.4			14.0-149		03/14/2017 14:28	WG959087
(S) 2-Fluorobiphenyl	83.3			34.0-125		03/14/2017 14:28	WG959087
(S) p-Terphenyl-d14	91.6			23.0-120		03/14/2017 14:28	WG959087

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.6		1	03/09/2017 09:17	WG959282

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	U		0.0391	0.115	1	03/08/2017 07:02	WG958703
(S) a,a,a-Trifluorotoluene(FID)	92.5			77.0-120		03/08/2017 07:02	WG958703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000312	0.00115	1	03/08/2017 19:46	WG958676
Toluene	U		0.000501	0.00577	1	03/08/2017 19:46	WG958676
Ethylbenzene	U		0.000343	0.00115	1	03/08/2017 19:46	WG958676
Total Xylenes	U		0.000806	0.00346	1	03/08/2017 19:46	WG958676
(S) Toluene-d8	101			80.0-120		03/08/2017 19:46	WG958676
(S) Dibromofluoromethane	110			74.0-131		03/08/2017 19:46	WG958676
(S) a,a,a-Trifluorotoluene	97.7			80.0-120		03/08/2017 19:46	WG958676
(S) 4-Bromofluorobenzene	90.8			64.0-132		03/08/2017 19:46	WG958676

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.52	4.62	1	03/08/2017 22:30	WG958691
Residual Range Organics (RRO)	U		3.81	11.5	1	03/08/2017 22:30	WG958691
(S) o-Terphenyl	78.7			18.0-148		03/08/2017 22:30	WG958691

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Acenaphthene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Acenaphthylene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Benzo(a)anthracene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Benzo(a)pyrene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Benzo(b)fluoranthene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Benzo(g,h,i)perylene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Benzo(k)fluoranthene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Chrysene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Dibenz(a,h)anthracene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Fluoranthene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Fluorene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Naphthalene	U		0.00231	0.0231	1	03/14/2017 14:49	WG959087
Phenanthrene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
Pyrene	U		0.000693	0.00693	1	03/14/2017 14:49	WG959087
1-Methylnaphthalene	U		0.00231	0.0231	1	03/14/2017 14:49	WG959087
2-Methylnaphthalene	U		0.00231	0.0231	1	03/14/2017 14:49	WG959087
2-Chloronaphthalene	U		0.00231	0.0231	1	03/14/2017 14:49	WG959087
(S) Nitrobenzene-d5	86.6			14.0-149		03/14/2017 14:49	WG959087
(S) 2-Fluorobiphenyl	83.2			34.0-125		03/14/2017 14:49	WG959087
(S) p-Terphenyl-d14	84.8			23.0-120		03/14/2017 14:49	WG959087



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.3		1	03/09/2017 09:17	WG959282

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.00336	0.0240	1	03/08/2017 14:57	WG958303

Metals (ICP) by Method 6010C

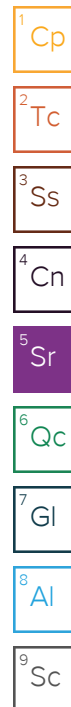
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.03	J	0.780	2.40	1	03/08/2017 13:20	WG958474
Barium	48.6		0.204	0.600	1	03/08/2017 13:20	WG958474
Cadmium	U		0.0841	0.600	1	03/08/2017 13:20	WG958474
Chromium	21.2		0.168	1.20	1	03/08/2017 13:20	WG958474
Lead	2.52		0.228	0.600	1	03/08/2017 13:20	WG958474
Selenium	U		0.889	2.40	1	03/08/2017 13:20	WG958474
Silver	U		0.336	1.20	1	03/08/2017 13:20	WG958474

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	13800		156	462	3850	03/08/2017 09:15	WG958703
(S) a,a,a-Trifluorotoluene(FID)	104			77.0-120		03/08/2017 09:15	WG958703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		9.25	46.2	770	03/09/2017 21:44	WG959350
Acrylonitrile	U		1.66	9.25	770	03/09/2017 21:44	WG959350
Benzene	3.48		0.250	0.925	770	03/09/2017 21:44	WG959350
Bromobenzene	U		0.263	0.925	770	03/09/2017 21:44	WG959350
Bromodichloromethane	U		0.235	0.925	770	03/09/2017 21:44	WG959350
Bromoform	U		0.391	0.925	770	03/09/2017 21:44	WG959350
Bromomethane	U		1.24	4.62	770	03/09/2017 21:44	WG959350
n-Butylbenzene	16.8		0.239	0.925	770	03/09/2017 21:44	WG959350
sec-Butylbenzene	5.87		0.186	0.925	770	03/09/2017 21:44	WG959350
tert-Butylbenzene	U		0.191	0.925	770	03/09/2017 21:44	WG959350
Carbon tetrachloride	U		0.303	0.925	770	03/09/2017 21:44	WG959350
Chlorobenzene	U		0.196	0.925	770	03/09/2017 21:44	WG959350
Chlorodibromomethane	U		0.345	0.925	770	03/09/2017 21:44	WG959350
Chloroethane	U		0.874	4.62	770	03/09/2017 21:44	WG959350
Chloroform	U		0.211	4.62	770	03/09/2017 21:44	WG959350
Chloromethane	U		0.347	2.31	770	03/09/2017 21:44	WG959350
2-Chlorotoluene	U		0.279	0.925	770	03/09/2017 21:44	WG959350
4-Chlorotoluene	U		0.222	0.925	770	03/09/2017 21:44	WG959350
1,2-Dibromo-3-Chloropropane	U		0.970	4.62	770	03/09/2017 21:44	WG959350
1,2-Dibromoethane	U		0.317	0.925	770	03/09/2017 21:44	WG959350
Dibromomethane	U		0.353	0.925	770	03/09/2017 21:44	WG959350
1,2-Dichlorobenzene	U		0.282	0.925	770	03/09/2017 21:44	WG959350
1,3-Dichlorobenzene	U		0.221	0.925	770	03/09/2017 21:44	WG959350
1,4-Dichlorobenzene	U		0.209	0.925	770	03/09/2017 21:44	WG959350
Dichlorodifluoromethane	U		0.659	4.62	770	03/09/2017 21:44	WG959350
1,1-Dichloroethane	U		0.184	0.925	770	03/09/2017 21:44	WG959350
1,2-Dichloroethane	U		0.245	0.925	770	03/09/2017 21:44	WG959350





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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.280	0.925	770	03/09/2017 21:44	WG959350
cis-1,2-Dichloroethene	U		0.217	0.925	770	03/09/2017 21:44	WG959350
trans-1,2-Dichloroethene	U		0.244	0.925	770	03/09/2017 21:44	WG959350
1,2-Dichloropropane	U		0.331	0.925	770	03/09/2017 21:44	WG959350
1,1-Dichloropropene	U		0.293	0.925	770	03/09/2017 21:44	WG959350
1,3-Dichloropropane	U		0.191	0.925	770	03/09/2017 21:44	WG959350
cis-1,3-Dichloropropene	U		0.243	0.925	770	03/09/2017 21:44	WG959350
trans-1,3-Dichloropropene	U		0.247	0.925	770	03/09/2017 21:44	WG959350
2,2-Dichloropropane	U		0.258	0.925	770	03/09/2017 21:44	WG959350
Di-isopropyl ether	U		0.229	0.925	770	03/09/2017 21:44	WG959350
Ethylbenzene	177		0.275	0.925	770	03/09/2017 21:44	WG959350
Hexachloro-1,3-butadiene	U		0.316	0.925	770	03/09/2017 21:44	WG959350
Isopropylbenzene	16.1		0.225	0.925	770	03/09/2017 21:44	WG959350
p-Isopropyltoluene	2.32		0.189	0.925	770	03/09/2017 21:44	WG959350
2-Butanone (MEK)	U		4.32	9.25	770	03/09/2017 21:44	WG959350
Methylene Chloride	U		0.925	4.62	770	03/09/2017 21:44	WG959350
4-Methyl-2-pentanone (MIBK)	U		1.74	9.25	770	03/09/2017 21:44	WG959350
Methyl tert-butyl ether	U		0.196	0.925	770	03/09/2017 21:44	WG959350
Naphthalene	45.9		0.925	4.62	770	03/09/2017 21:44	WG959350
n-Propylbenzene	72.4		0.191	0.925	770	03/09/2017 21:44	WG959350
Styrene	U		0.216	0.925	770	03/09/2017 21:44	WG959350
1,1,1,2-Tetrachloroethane	U		0.244	0.925	770	03/09/2017 21:44	WG959350
1,1,2,2-Tetrachloroethane	U		0.337	0.925	770	03/09/2017 21:44	WG959350
1,1,2-Trichlorotrifluoroethane	U		0.337	0.925	770	03/09/2017 21:44	WG959350
Tetrachloroethene	U		0.255	0.925	770	03/09/2017 21:44	WG959350
Toluene	19.7		0.401	4.62	770	03/09/2017 21:44	WG959350
1,2,3-Trichlorobenzene	U		0.283	0.925	770	03/09/2017 21:44	WG959350
1,2,4-Trichlorobenzene	U		0.359	0.925	770	03/09/2017 21:44	WG959350
1,1,1-Trichloroethane	U		0.264	0.925	770	03/09/2017 21:44	WG959350
1,1,2-Trichloroethane	U		0.256	0.925	770	03/09/2017 21:44	WG959350
Trichloroethene	U		0.258	0.925	770	03/09/2017 21:44	WG959350
Trichlorofluoromethane	U		0.353	4.62	770	03/09/2017 21:44	WG959350
1,2,3-Trichloropropane	U		0.684	2.31	770	03/09/2017 21:44	WG959350
1,2,4-Trimethylbenzene	423		1.95	9.25	7700	03/11/2017 18:14	WG959350
1,2,3-Trimethylbenzene	104		0.265	0.925	770	03/09/2017 21:44	WG959350
Vinyl chloride	U		0.269	0.925	770	03/09/2017 21:44	WG959350
1,3,5-Trimethylbenzene	140		0.246	0.925	770	03/09/2017 21:44	WG959350
Xylenes, Total	938		6.45	27.7	7700	03/11/2017 18:14	WG959350
(S) Toluene-d8	93.1			80.0-120		03/09/2017 21:44	WG959350
(S) Toluene-d8	102			80.0-120		03/11/2017 18:14	WG959350
(S) Dibromofluoromethane	97.2			74.0-131		03/09/2017 21:44	WG959350
(S) Dibromofluoromethane	94.1			74.0-131		03/11/2017 18:14	WG959350
(S) 4-Bromofluorobenzene	78.0			64.0-132		03/09/2017 21:44	WG959350
(S) 4-Bromofluorobenzene	99.2			64.0-132		03/11/2017 18:14	WG959350

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	166		31.7	96.1	20	03/09/2017 02:25	WG958691
Residual Range Organics (RRO)	U		79.2	240	20	03/09/2017 02:25	WG958691
(S) o-Terphenyl	86.5	J7		18.0-148		03/09/2017 02:25	WG958691

Sample Narrative:

NWTPHDX-NO SGT L893941-06 WG958691: Dilution due to matrix



Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	<u>J3</u>	0.00420	0.0204	1	03/09/2017 17:14	WG958814
PCB 1221	U		0.00645	0.0204	1	03/09/2017 17:14	WG958814
PCB 1232	U		0.00501	0.0204	1	03/09/2017 17:14	WG958814
PCB 1242	U		0.00382	0.0204	1	03/09/2017 17:14	WG958814
PCB 1248	U		0.00378	0.0204	1	03/09/2017 17:14	WG958814
PCB 1254	U		0.00567	0.0204	1	03/09/2017 17:14	WG958814
PCB 1260	U	<u>J3</u>	0.00593	0.0204	1	03/09/2017 17:14	WG958814
(S) Decachlorobiphenyl	97.8			10.0-148		03/09/2017 17:14	WG958814
(S) Tetrachloro-m-xylene	96.0			21.0-146		03/09/2017 17:14	WG958814

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0274		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Acenaphthene	0.0269		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Acenaphthylene	0.00465	<u>J</u>	0.000720	0.00720	1	03/14/2017 15:11	WG959087
Benzo(a)anthracene	0.00191	<u>J</u>	0.000720	0.00720	1	03/14/2017 15:11	WG959087
Benzo(a)pyrene	U		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Benzo(b)fluoranthene	U		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Benzo(g,h,i)perylene	0.00152	<u>J</u>	0.000720	0.00720	1	03/14/2017 15:11	WG959087
Benzo(k)fluoranthene	U		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Chrysene	0.00216	<u>J</u>	0.000720	0.00720	1	03/14/2017 15:11	WG959087
Dibenz(a,h)anthracene	U		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Fluoranthene	0.00902		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Fluorene	0.0784		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Naphthalene	12.6		0.0480	0.480	20	03/14/2017 17:40	WG959087
Phenanthrene	0.0857		0.000720	0.00720	1	03/14/2017 15:11	WG959087
Pyrene	0.0296		0.000720	0.00720	1	03/14/2017 15:11	WG959087
1-Methylnaphthalene	5.98		0.0480	0.480	20	03/14/2017 17:40	WG959087
2-Methylnaphthalene	14.6		0.0480	0.480	20	03/14/2017 17:40	WG959087
2-Chloronaphthalene	U		0.00240	0.0240	1	03/14/2017 15:11	WG959087
(S) Nitrobenzene-d5	77.1			14.0-149		03/14/2017 15:11	WG959087
(S) Nitrobenzene-d5	208	<u>J7</u>		14.0-149		03/14/2017 17:40	WG959087
(S) 2-Fluorobiphenyl	80.3			34.0-125		03/14/2017 15:11	WG959087
(S) 2-Fluorobiphenyl	79.4	<u>J7</u>		34.0-125		03/14/2017 17:40	WG959087
(S) p-Terphenyl-d14	84.0			23.0-120		03/14/2017 15:11	WG959087
(S) p-Terphenyl-d14	65.3	<u>J7</u>		23.0-120		03/14/2017 17:40	WG959087

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.1		1	03/09/2017 09:17	WG959282

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	15.2		0.720	2.12	18.5	03/08/2017 07:47	WG958703
(S) a,a,a-Trifluorotoluene(FID)	92.7			77.0-120		03/08/2017 07:47	WG958703

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.00775	0.0287	25	03/08/2017 20:05	WG958676
Toluene	U		0.0124	0.143	25	03/08/2017 20:05	WG958676
Ethylbenzene	0.170		0.00852	0.0287	25	03/08/2017 20:05	WG958676
Total Xylenes	0.500		0.0200	0.0861	25	03/08/2017 20:05	WG958676
(S) Toluene-d8	101			80.0-120		03/08/2017 20:05	WG958676
(S) Dibromofluoromethane	102			74.0-131		03/08/2017 20:05	WG958676
(S) a,a,a-Trifluorotoluene	99.0			80.0-120		03/08/2017 20:05	WG958676
(S) 4-Bromofluorobenzene	101			64.0-132		03/08/2017 20:05	WG958676

Sample Narrative:

8260C L893941-07 WG958676: Non-target and target compounds too high to run at a lower dilution.

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.52	4.59	1	03/08/2017 22:43	WG958691
Residual Range Organics (RRO)	U		3.79	11.5	1	03/08/2017 22:43	WG958691
(S) o-Terphenyl	82.3			18.0-148		03/08/2017 22:43	WG958691

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Acenaphthene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Acenaphthylene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Benzo(a)anthracene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Benzo(a)pyrene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Benzo(b)fluoranthene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Benzo(g,h,i)perylene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Benzo(k)fluoranthene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Chrysene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Dibenz(a,h)anthracene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Fluoranthene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Fluorene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
Naphthalene	0.0670		0.00230	0.0230	1	03/14/2017 15:32	WG959087
Phenanthrene	0.000807	J	0.000689	0.00689	1	03/14/2017 15:32	WG959087
Pyrene	U		0.000689	0.00689	1	03/14/2017 15:32	WG959087
1-Methylnaphthalene	0.0302		0.00230	0.0230	1	03/14/2017 15:32	WG959087
2-Methylnaphthalene	0.0701		0.00230	0.0230	1	03/14/2017 15:32	WG959087
2-Chloronaphthalene	U		0.00230	0.0230	1	03/14/2017 15:32	WG959087
(S) Nitrobenzene-d5	85.6			14.0-149		03/14/2017 15:32	WG959087
(S) 2-Fluorobiphenyl	77.4			34.0-125		03/14/2017 15:32	WG959087



Collected date/time: 03/01/17 13:15

L893941

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	74.3			23.0-120		03/14/2017 15:32	WG959087

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.8		1	03/09/2017 09:17	WG959282

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.00346	0.0247	1	03/08/2017 14:59	WG958303

Metals (ICP) by Method 6010C

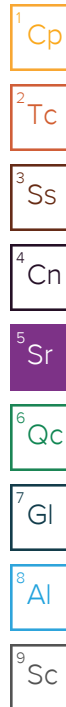
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.22	J	0.804	2.47	1	03/08/2017 13:23	WG958474
Barium	107		0.210	0.619	1	03/08/2017 13:23	WG958474
Cadmium	0.101	J	0.0866	0.619	1	03/08/2017 13:23	WG958474
Chromium	34.5		0.173	1.24	1	03/08/2017 13:23	WG958474
Lead	4.12		0.235	0.619	1	03/08/2017 13:23	WG958474
Selenium	U		0.915	2.47	1	03/08/2017 13:23	WG958474
Silver	0.784	J	0.346	1.24	1	03/08/2017 13:23	WG958474

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	289		30.2	89.1	720	03/08/2017 08:09	WG958703
(S) a,a,a-Trifluorotoluene(FID)	93.8			77.0-120		03/08/2017 08:09	WG958703

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.891	4.45	72	03/11/2017 17:15	WG959350
Acrylonitrile	U		0.160	0.891	72	03/11/2017 17:15	WG959350
Benzene	0.0752	J	0.0240	0.0891	72	03/11/2017 17:15	WG959350
Bromobenzene	U		0.0252	0.0891	72	03/11/2017 17:15	WG959350
Bromodichloromethane	U		0.0226	0.0891	72	03/11/2017 17:15	WG959350
Bromoform	U		0.0377	0.0891	72	03/11/2017 17:15	WG959350
Bromomethane	U		0.119	0.445	72	03/11/2017 17:15	WG959350
n-Butylbenzene	0.579		0.0230	0.0891	72	03/11/2017 17:15	WG959350
sec-Butylbenzene	0.316		0.0179	0.0891	72	03/11/2017 17:15	WG959350
tert-Butylbenzene	U		0.0183	0.0891	72	03/11/2017 17:15	WG959350
Carbon tetrachloride	U		0.0292	0.0891	72	03/11/2017 17:15	WG959350
Chlorobenzene	U		0.0189	0.0891	72	03/11/2017 17:15	WG959350
Chlorodibromomethane	U		0.0332	0.0891	72	03/11/2017 17:15	WG959350
Chloroethane	U		0.0842	0.445	72	03/11/2017 17:15	WG959350
Chloroform	U		0.0204	0.445	72	03/11/2017 17:15	WG959350
Chloromethane	U		0.0334	0.223	72	03/11/2017 17:15	WG959350
2-Chlorotoluene	U		0.0268	0.0891	72	03/11/2017 17:15	WG959350
4-Chlorotoluene	U		0.0214	0.0891	72	03/11/2017 17:15	WG959350
1,2-Dibromo-3-Chloropropane	U		0.0935	0.445	72	03/11/2017 17:15	WG959350
1,2-Dibromoethane	U		0.0306	0.0891	72	03/11/2017 17:15	WG959350
Dibromomethane	U		0.0340	0.0891	72	03/11/2017 17:15	WG959350
1,2-Dichlorobenzene	U		0.0272	0.0891	72	03/11/2017 17:15	WG959350
1,3-Dichlorobenzene	U		0.0213	0.0891	72	03/11/2017 17:15	WG959350
1,4-Dichlorobenzene	U		0.0202	0.0891	72	03/11/2017 17:15	WG959350
Dichlorodifluoromethane	U		0.0635	0.445	72	03/11/2017 17:15	WG959350
1,1-Dichloroethane	U		0.0177	0.0891	72	03/11/2017 17:15	WG959350
1,2-Dichloroethane	U		0.0236	0.0891	72	03/11/2017 17:15	WG959350





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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.0270	0.0891	72	03/11/2017 17:15	WG959350
cis-1,2-Dichloroethene	U		0.0209	0.0891	72	03/11/2017 17:15	WG959350
trans-1,2-Dichloroethene	U		0.0235	0.0891	72	03/11/2017 17:15	WG959350
1,2-Dichloropropane	U		0.0319	0.0891	72	03/11/2017 17:15	WG959350
1,1-Dichloropropene	U		0.0282	0.0891	72	03/11/2017 17:15	WG959350
1,3-Dichloropropane	U		0.0184	0.0891	72	03/11/2017 17:15	WG959350
cis-1,3-Dichloropropene	U		0.0234	0.0891	72	03/11/2017 17:15	WG959350
trans-1,3-Dichloropropene	U		0.0238	0.0891	72	03/11/2017 17:15	WG959350
2,2-Dichloropropane	U		0.0249	0.0891	72	03/11/2017 17:15	WG959350
Di-isopropyl ether	U		0.0220	0.0891	72	03/11/2017 17:15	WG959350
Ethylbenzene	3.56		0.0265	0.0891	72	03/11/2017 17:15	WG959350
Hexachloro-1,3-butadiene	U		0.0304	0.0891	72	03/11/2017 17:15	WG959350
Isopropylbenzene	0.878		0.0217	0.0891	72	03/11/2017 17:15	WG959350
p-Isopropyltoluene	0.104		0.0182	0.0891	72	03/11/2017 17:15	WG959350
2-Butanone (MEK)	U		0.417	0.891	72	03/11/2017 17:15	WG959350
Methylene Chloride	U		0.0891	0.445	72	03/11/2017 17:15	WG959350
4-Methyl-2-pentanone (MIBK)	U		0.167	0.891	72	03/11/2017 17:15	WG959350
Methyl tert-butyl ether	U		0.0189	0.0891	72	03/11/2017 17:15	WG959350
Naphthalene	1.36		0.0891	0.445	72	03/11/2017 17:15	WG959350
n-Propylbenzene	3.63		0.0183	0.0891	72	03/11/2017 17:15	WG959350
Styrene	U		0.0208	0.0891	72	03/11/2017 17:15	WG959350
1,1,1,2-Tetrachloroethane	U		0.0235	0.0891	72	03/11/2017 17:15	WG959350
1,1,2,2-Tetrachloroethane	U		0.0325	0.0891	72	03/11/2017 17:15	WG959350
1,1,2-Trichlorotrifluoroethane	U		0.0325	0.0891	72	03/11/2017 17:15	WG959350
Tetrachloroethene	U		0.0246	0.0891	72	03/11/2017 17:15	WG959350
Toluene	U		0.0386	0.445	72	03/11/2017 17:15	WG959350
1,2,3-Trichlorobenzene	U		0.0272	0.0891	72	03/11/2017 17:15	WG959350
1,2,4-Trichlorobenzene	U		0.0345	0.0891	72	03/11/2017 17:15	WG959350
1,1,1-Trichloroethane	U		0.0255	0.0891	72	03/11/2017 17:15	WG959350
1,1,2-Trichloroethane	U		0.0246	0.0891	72	03/11/2017 17:15	WG959350
Trichloroethene	U		0.0249	0.0891	72	03/11/2017 17:15	WG959350
Trichlorofluoromethane	U		0.0340	0.445	72	03/11/2017 17:15	WG959350
1,2,3-Trichloropropane	U		0.0661	0.223	72	03/11/2017 17:15	WG959350
1,2,4-Trimethylbenzene	5.31		0.0188	0.0891	72	03/11/2017 17:15	WG959350
1,2,3-Trimethylbenzene	4.24		0.0256	0.0891	72	03/11/2017 17:15	WG959350
Vinyl chloride	U		0.0260	0.0891	72	03/11/2017 17:15	WG959350
1,3,5-Trimethylbenzene	1.80		0.0238	0.0891	72	03/11/2017 17:15	WG959350
Xylenes, Total	1.22		0.0621	0.267	72	03/11/2017 17:15	WG959350
(S) Toluene-d8	100			80.0-120		03/11/2017 17:15	WG959350
(S) Dibromofluoromethane	94.4			74.0-131		03/11/2017 17:15	WG959350
(S) 4-Bromofluorobenzene	97.4			64.0-132		03/11/2017 17:15	WG959350

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	22.7		1.63	4.95	1	03/08/2017 22:55	WG958691
Residual Range Organics (RRO)	U		4.08	12.4	1	03/08/2017 22:55	WG958691
(S) o-Terphenyl	106			18.0-148		03/08/2017 22:55	WG958691



Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U	J3	0.00433	0.0210	1	03/09/2017 17:28	WG958814
PCB 1221	U		0.00664	0.0210	1	03/09/2017 17:28	WG958814
PCB 1232	U		0.00516	0.0210	1	03/09/2017 17:28	WG958814
PCB 1242	U		0.00393	0.0210	1	03/09/2017 17:28	WG958814
PCB 1248	U		0.00390	0.0210	1	03/09/2017 17:28	WG958814
PCB 1254	U		0.00584	0.0210	1	03/09/2017 17:28	WG958814
PCB 1260	U	J3	0.00611	0.0210	1	03/09/2017 17:28	WG958814
(S) Decachlorobiphenyl	98.5			10.0-148		03/09/2017 17:28	WG958814
(S) Tetrachloro-m-xylene	102			21.0-146		03/09/2017 17:28	WG958814

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Acenaphthene	0.00138	J	0.000742	0.00742	1	03/14/2017 15:53	WG959087
Acenaphthylene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Benzo(a)anthracene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Benzo(a)pyrene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Benzo(b)fluoranthene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Benzo(g,h,i)perylene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Benzo(k)fluoranthene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Chrysene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Dibenz(a,h)anthracene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Fluoranthene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Fluorene	0.00268	J	0.000742	0.00742	1	03/14/2017 15:53	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
Naphthalene	0.426		0.00247	0.0247	1	03/14/2017 15:53	WG959087
Phenanthrene	0.00177	J	0.000742	0.00742	1	03/14/2017 15:53	WG959087
Pyrene	U		0.000742	0.00742	1	03/14/2017 15:53	WG959087
1-Methylnaphthalene	0.210		0.00247	0.0247	1	03/14/2017 15:53	WG959087
2-Methylnaphthalene	0.484		0.00247	0.0247	1	03/14/2017 15:53	WG959087
2-Chloronaphthalene	U		0.00247	0.0247	1	03/14/2017 15:53	WG959087
(S) Nitrobenzene-d5	75.3			14.0-149		03/14/2017 15:53	WG959087
(S) 2-Fluorobiphenyl	55.2			34.0-125		03/14/2017 15:53	WG959087
(S) p-Terphenyl-d14	70.8			23.0-120		03/14/2017 15:53	WG959087

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.3		1	03/09/2017 09:17	WG959282

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	1.63		0.0380	0.112	1	03/13/2017 13:01	WG958705
(S) a,a,a-Trifluorotoluene(FID)	93.1			77.0-120		03/13/2017 13:01	WG958705

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.0152	J	0.00560	0.0207	18.5	03/09/2017 13:11	WG959355
Toluene	0.0156	J	0.00899	0.104	18.5	03/09/2017 13:11	WG959355
Ethylbenzene	0.314		0.00615	0.0207	18.5	03/09/2017 13:11	WG959355
Total Xylenes	0.373		0.0144	0.0622	18.5	03/09/2017 13:11	WG959355
(S) Toluene-d8	101			80.0-120		03/09/2017 13:11	WG959355
(S) Dibromofluoromethane	82.3			74.0-131		03/09/2017 13:11	WG959355
(S) a,a,a-Trifluorotoluene	102			80.0-120		03/09/2017 13:11	WG959355
(S) 4-Bromofluorobenzene	108			64.0-132		03/09/2017 13:11	WG959355

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.48	4.48	1	03/08/2017 23:22	WG958691
Residual Range Organics (RRO)	U		3.70	11.2	1	03/08/2017 23:22	WG958691
(S) o-Terphenyl	110			18.0-148		03/08/2017 23:22	WG958691

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Acenaphthene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Acenaphthylene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Benzo(a)anthracene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Benzo(a)pyrene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Benzo(b)fluoranthene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Benzo(g,h,i)perylene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Benzo(k)fluoranthene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Chrysene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Dibenz(a,h)anthracene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Fluoranthene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Fluorene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Naphthalene	0.00848	J	0.00224	0.0224	1	03/14/2017 16:15	WG959087
Phenanthrene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
Pyrene	U		0.000672	0.00672	1	03/14/2017 16:15	WG959087
1-Methylnaphthalene	0.00496	J	0.00224	0.0224	1	03/14/2017 16:15	WG959087
2-Methylnaphthalene	0.0113	J	0.00224	0.0224	1	03/14/2017 16:15	WG959087
2-Chloronaphthalene	U		0.00224	0.0224	1	03/14/2017 16:15	WG959087
(S) Nitrobenzene-d5	79.5			14.0-149		03/14/2017 16:15	WG959087
(S) 2-Fluorobiphenyl	90.0			34.0-125		03/14/2017 16:15	WG959087
(S) p-Terphenyl-d14	88.0			23.0-120		03/14/2017 16:15	WG959087



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.9		1	03/09/2017 09:17	WG959282

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.00326	0.0233	1	03/08/2017 15:38	WG958303

Metals (ICP) by Method 6010C

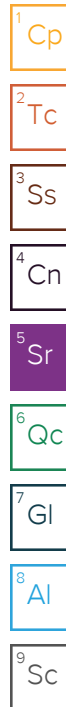
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.74	J	0.756	2.33	1	03/08/2017 13:25	WG958474
Barium	36.7		0.198	0.582	1	03/08/2017 13:25	WG958474
Cadmium	U		0.0815	0.582	1	03/08/2017 13:25	WG958474
Chromium	20.4		0.163	1.16	1	03/08/2017 13:25	WG958474
Lead	1.69		0.221	0.582	1	03/08/2017 13:25	WG958474
Selenium	U		0.861	2.33	1	03/08/2017 13:25	WG958474
Silver	U		0.326	1.16	1	03/08/2017 13:25	WG958474

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	11.5		2.87	8.49	73	03/08/2017 15:37	WG958705
(S) a,a,a-Trifluorotoluene(FID)	92.9			77.0-120		03/08/2017 15:37	WG958705

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.212	1.06	18.25	03/11/2017 17:35	WG959350
Acrylonitrile	U		0.0381	0.212	18.25	03/11/2017 17:35	WG959350
Benzene	U		0.00574	0.0212	18.25	03/11/2017 17:35	WG959350
Bromobenzene	U		0.00603	0.0212	18.25	03/11/2017 17:35	WG959350
Bromodichloromethane	U		0.00540	0.0212	18.25	03/11/2017 17:35	WG959350
Bromoform	U		0.00901	0.0212	18.25	03/11/2017 17:35	WG959350
Bromomethane	U		0.0284	0.106	18.25	03/11/2017 17:35	WG959350
n-Butylbenzene	0.00769	J	0.00548	0.0212	18.25	03/11/2017 17:35	WG959350
sec-Butylbenzene	0.0115	J	0.00427	0.0212	18.25	03/11/2017 17:35	WG959350
tert-Butylbenzene	U		0.00438	0.0212	18.25	03/11/2017 17:35	WG959350
Carbon tetrachloride	U		0.00697	0.0212	18.25	03/11/2017 17:35	WG959350
Chlorobenzene	U		0.00450	0.0212	18.25	03/11/2017 17:35	WG959350
Chlorodibromomethane	U		0.00792	0.0212	18.25	03/11/2017 17:35	WG959350
Chloroethane	U		0.0201	0.106	18.25	03/11/2017 17:35	WG959350
Chloroform	U		0.00486	0.106	18.25	03/11/2017 17:35	WG959350
Chloromethane	U		0.00796	0.0531	18.25	03/11/2017 17:35	WG959350
2-Chlorotoluene	U		0.00639	0.0212	18.25	03/11/2017 17:35	WG959350
4-Chlorotoluene	U		0.00510	0.0212	18.25	03/11/2017 17:35	WG959350
1,2-Dibromo-3-Chloropropane	U		0.0223	0.106	18.25	03/11/2017 17:35	WG959350
1,2-Dibromoethane	U		0.00728	0.0212	18.25	03/11/2017 17:35	WG959350
Dibromomethane	U		0.00811	0.0212	18.25	03/11/2017 17:35	WG959350
1,2-Dichlorobenzene	U		0.00648	0.0212	18.25	03/11/2017 17:35	WG959350
1,3-Dichlorobenzene	U		0.00507	0.0212	18.25	03/11/2017 17:35	WG959350
1,4-Dichlorobenzene	U		0.00479	0.0212	18.25	03/11/2017 17:35	WG959350
Dichlorodifluoromethane	U		0.0151	0.106	18.25	03/11/2017 17:35	WG959350
1,1-Dichloroethane	U		0.00422	0.0212	18.25	03/11/2017 17:35	WG959350
1,2-Dichloroethane	U		0.00563	0.0212	18.25	03/11/2017 17:35	WG959350





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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.00643	0.0212	18.25	03/11/2017 17:35	WG959350
cis-1,2-Dichloroethene	U		0.00499	0.0212	18.25	03/11/2017 17:35	WG959350
trans-1,2-Dichloroethene	U		0.00561	0.0212	18.25	03/11/2017 17:35	WG959350
1,2-Dichloropropane	U		0.00760	0.0212	18.25	03/11/2017 17:35	WG959350
1,1-Dichloropropene	U		0.00673	0.0212	18.25	03/11/2017 17:35	WG959350
1,3-Dichloropropane	U		0.00440	0.0212	18.25	03/11/2017 17:35	WG959350
cis-1,3-Dichloropropene	U		0.00556	0.0212	18.25	03/11/2017 17:35	WG959350
trans-1,3-Dichloropropene	U		0.00567	0.0212	18.25	03/11/2017 17:35	WG959350
2,2-Dichloropropane	U		0.00592	0.0212	18.25	03/11/2017 17:35	WG959350
Di-isopropyl ether	U		0.00527	0.0212	18.25	03/11/2017 17:35	WG959350
Ethylbenzene	U		0.00631	0.0212	18.25	03/11/2017 17:35	WG959350
Hexachloro-1,3-butadiene	U		0.00726	0.0212	18.25	03/11/2017 17:35	WG959350
Isopropylbenzene	0.0102	J	0.00515	0.0212	18.25	03/11/2017 17:35	WG959350
p-Isopropyltoluene	U		0.00433	0.0212	18.25	03/11/2017 17:35	WG959350
2-Butanone (MEK)	U		0.0994	0.212	18.25	03/11/2017 17:35	WG959350
Methylene Chloride	U		0.0212	0.106	18.25	03/11/2017 17:35	WG959350
4-Methyl-2-pentanone (MIBK)	U		0.0399	0.212	18.25	03/11/2017 17:35	WG959350
Methyl tert-butyl ether	U		0.00450	0.0212	18.25	03/11/2017 17:35	WG959350
Naphthalene	U		0.0212	0.106	18.25	03/11/2017 17:35	WG959350
n-Propylbenzene	0.0600		0.00438	0.0212	18.25	03/11/2017 17:35	WG959350
Styrene	U		0.00497	0.0212	18.25	03/11/2017 17:35	WG959350
1,1,1,2-Tetrachloroethane	U		0.00561	0.0212	18.25	03/11/2017 17:35	WG959350
1,1,2,2-Tetrachloroethane	U		0.00775	0.0212	18.25	03/11/2017 17:35	WG959350
1,1,2-Trichlorotrifluoroethane	U		0.00775	0.0212	18.25	03/11/2017 17:35	WG959350
Tetrachloroethene	U		0.00586	0.0212	18.25	03/11/2017 17:35	WG959350
Toluene	U		0.00922	0.106	18.25	03/11/2017 17:35	WG959350
1,2,3-Trichlorobenzene	U		0.00649	0.0212	18.25	03/11/2017 17:35	WG959350
1,2,4-Trichlorobenzene	U		0.00824	0.0212	18.25	03/11/2017 17:35	WG959350
1,1,1-Trichloroethane	U		0.00607	0.0212	18.25	03/11/2017 17:35	WG959350
1,1,2-Trichloroethane	U		0.00589	0.0212	18.25	03/11/2017 17:35	WG959350
Trichloroethene	U		0.00592	0.0212	18.25	03/11/2017 17:35	WG959350
Trichlorofluoromethane	U		0.00811	0.106	18.25	03/11/2017 17:35	WG959350
1,2,3-Trichloropropane	U		0.0157	0.0531	18.25	03/11/2017 17:35	WG959350
1,2,4-Trimethylbenzene	0.00515	J	0.00448	0.0212	18.25	03/11/2017 17:35	WG959350
1,2,3-Trimethylbenzene	U		0.00610	0.0212	18.25	03/11/2017 17:35	WG959350
Vinyl chloride	U		0.00618	0.0212	18.25	03/11/2017 17:35	WG959350
1,3,5-Trimethylbenzene	U		0.00564	0.0212	18.25	03/11/2017 17:35	WG959350
Xylenes, Total	U		0.0148	0.0637	18.25	03/11/2017 17:35	WG959350
(S) Toluene-d8	102			80.0-120		03/11/2017 17:35	WG959350
(S) Dibromofluoromethane	92.5			74.0-131		03/11/2017 17:35	WG959350
(S) 4-Bromofluorobenzene	97.1			64.0-132		03/11/2017 17:35	WG959350

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

Sample Narrative:

8260C L893941-10 WG959350: Non-target compounds too high to run at a lower dilution.

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	2.80	J	1.54	4.65	1	03/08/2017 23:48	WG958691
Residual Range Organics (RRO)	U		3.84	11.6	1	03/08/2017 23:48	WG958691
(S) o-Terphenyl	79.7			18.0-148		03/08/2017 23:48	WG958691



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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Acenaphthene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Acenaphthylene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Benzo(a)anthracene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Benzo(a)pyrene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Benzo(b)fluoranthene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Benzo(g,h,i)perylene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Benzo(k)fluoranthene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Chrysene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Dibenz(a,h)anthracene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Fluoranthene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Fluorene	0.00153	U	0.000698	0.00698	1	03/14/2017 16:36	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
Naphthalene	0.00622	U	0.00233	0.0233	1	03/14/2017 16:36	WG959087
Phenanthrene	0.00118	U	0.000698	0.00698	1	03/14/2017 16:36	WG959087
Pyrene	U		0.000698	0.00698	1	03/14/2017 16:36	WG959087
1-Methylnaphthalene	0.00968	U	0.00233	0.0233	1	03/14/2017 16:36	WG959087
2-Methylnaphthalene	0.00634	U	0.00233	0.0233	1	03/14/2017 16:36	WG959087
2-Chloronaphthalene	U		0.00233	0.0233	1	03/14/2017 16:36	WG959087
(S) Nitrobenzene-d5	78.8			14.0-149		03/14/2017 16:36	WG959087
(S) 2-Fluorobiphenyl	77.1			34.0-125		03/14/2017 16:36	WG959087
(S) p-Terphenyl-d14	70.2			23.0-120		03/14/2017 16:36	WG959087

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	03/09/2017 09:17	WG959282

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	0.420		0.0397	0.117	1	03/08/2017 15:59	WG958705
(S) a,a,a-Trifluorotoluene(FID)	88.9			77.0-120		03/08/2017 15:59	WG958705

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000644	J	0.000316	0.00117	1	03/13/2017 17:04	WG958676
Toluene	U		0.000508	0.00586	1	03/13/2017 17:04	WG958676
Ethylbenzene	U		0.000348	0.00117	1	03/13/2017 17:04	WG958676
Total Xylenes	U		0.000818	0.00351	1	03/13/2017 17:04	WG958676
(S) Toluene-d8	104			80.0-120		03/13/2017 17:04	WG958676
(S) Dibromofluoromethane	104			74.0-131		03/13/2017 17:04	WG958676
(S) a,a,a-Trifluorotoluene	104			80.0-120		03/13/2017 17:04	WG958676
(S) 4-Bromofluorobenzene	96.8			64.0-132		03/13/2017 17:04	WG958676

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Diesel Range Organics (DRO)	U		1.55	4.69	1	03/08/2017 23:35	WG958691
Residual Range Organics (RRO)	U		3.87	11.7	1	03/08/2017 23:35	WG958691
(S) o-Terphenyl	102			18.0-148		03/08/2017 23:35	WG958691

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Anthracene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Acenaphthene	0.00126	J	0.000703	0.00703	1	03/14/2017 16:57	WG959087
Acenaphthylene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Benzo(a)anthracene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Benzo(a)pyrene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Benzo(b)fluoranthene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Benzo(g,h,i)perylene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Benzo(k)fluoranthene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Chrysene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Dibenz(a,h)anthracene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Fluoranthene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Fluorene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Naphthalene	0.00656	J	0.00234	0.0234	1	03/14/2017 16:57	WG959087
Phenanthrene	U		0.000703	0.00703	1	03/14/2017 16:57	WG959087
Pyrene	0.00233	J	0.000703	0.00703	1	03/14/2017 16:57	WG959087
1-Methylnaphthalene	0.00317	J	0.00234	0.0234	1	03/14/2017 16:57	WG959087
2-Methylnaphthalene	0.00349	J	0.00234	0.0234	1	03/14/2017 16:57	WG959087
2-Chloronaphthalene	U		0.00234	0.0234	1	03/14/2017 16:57	WG959087
(S) Nitrobenzene-d5	77.3			14.0-149		03/14/2017 16:57	WG959087
(S) 2-Fluorobiphenyl	82.1			34.0-125		03/14/2017 16:57	WG959087
(S) p-Terphenyl-d14	74.5			23.0-120		03/14/2017 16:57	WG959087



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0490	0.200	1	03/08/2017 19:00	WG958806

Metals (ICP) by Method 6010C

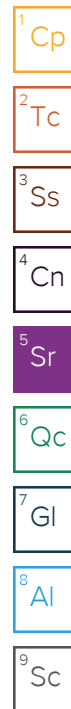
Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic,Dissolved	U		6.50	10.0	1	03/07/2017 20:25	WG958726
Barium,Dissolved	42.1		1.70	5.00	1	03/07/2017 20:25	WG958726
Cadmium,Dissolved	U		0.700	2.00	1	03/07/2017 20:25	WG958726
Chromium,Dissolved	U		1.40	10.0	1	03/07/2017 20:25	WG958726
Lead,Dissolved	U		1.90	5.00	1	03/07/2017 20:25	WG958726
Selenium,Dissolved	U		7.40	10.0	1	03/07/2017 20:25	WG958726
Silver,Dissolved	U		2.80	5.00	1	03/07/2017 20:25	WG958726

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	6120		31.6	100	1	03/09/2017 17:59	WG957976
(S) a,a,a-Trifluorotoluene(FID) 126		J1		77.0-122		03/09/2017 17:59	WG957976

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	03/08/2017 20:09	WG959106
Acrolein	U	J4	8.87	50.0	1	03/08/2017 20:09	WG959106
Acrylonitrile	U		1.87	10.0	1	03/08/2017 20:09	WG959106
Benzene	5.30		0.331	1.00	1	03/08/2017 20:09	WG959106
Bromobenzene	U		0.352	1.00	1	03/08/2017 20:09	WG959106
Bromodichloromethane	U		0.380	1.00	1	03/08/2017 20:09	WG959106
Bromoform	U		0.469	1.00	1	03/08/2017 20:09	WG959106
Bromomethane	U		0.866	5.00	1	03/08/2017 20:09	WG959106
n-Butylbenzene	14.4		0.361	1.00	1	03/08/2017 20:09	WG959106
sec-Butylbenzene	17.7		0.365	1.00	1	03/08/2017 20:09	WG959106
tert-Butylbenzene	U		0.399	1.00	1	03/08/2017 20:09	WG959106
Carbon tetrachloride	U		0.379	1.00	1	03/08/2017 20:09	WG959106
Chlorobenzene	U		0.348	1.00	1	03/08/2017 20:09	WG959106
Chlorodibromomethane	U		0.327	1.00	1	03/08/2017 20:09	WG959106
Chloroethane	U		0.453	5.00	1	03/08/2017 20:09	WG959106
Chloroform	U		0.324	5.00	1	03/08/2017 20:09	WG959106
Chloromethane	U		0.276	2.50	1	03/08/2017 20:09	WG959106
2-Chlorotoluene	U		0.375	1.00	1	03/08/2017 20:09	WG959106
4-Chlorotoluene	U		0.351	1.00	1	03/08/2017 20:09	WG959106
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/08/2017 20:09	WG959106
1,2-Dibromoethane	U		0.381	1.00	1	03/08/2017 20:09	WG959106
Dibromomethane	U		0.346	1.00	1	03/08/2017 20:09	WG959106
1,2-Dichlorobenzene	U		0.349	1.00	1	03/08/2017 20:09	WG959106
1,3-Dichlorobenzene	U		0.220	1.00	1	03/08/2017 20:09	WG959106
1,4-Dichlorobenzene	U		0.274	1.00	1	03/08/2017 20:09	WG959106
Dichlorodifluoromethane	U		0.551	5.00	1	03/08/2017 20:09	WG959106
1,1-Dichloroethane	U		0.259	1.00	1	03/08/2017 20:09	WG959106
1,2-Dichloroethane	U		0.361	1.00	1	03/08/2017 20:09	WG959106
1,1-Dichloroethene	U		0.398	1.00	1	03/08/2017 20:09	WG959106
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/08/2017 20:09	WG959106
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/08/2017 20:09	WG959106
1,2-Dichloropropane	U		0.306	1.00	1	03/08/2017 20:09	WG959106





Collected date/time: 03/01/17 14:50

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.352	1.00	1	03/08/2017 20:09	WG959106
1,3-Dichloropropane	U		0.366	1.00	1	03/08/2017 20:09	WG959106
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/08/2017 20:09	WG959106
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/08/2017 20:09	WG959106
2,2-Dichloropropane	U		0.321	1.00	1	03/08/2017 20:09	WG959106
Di-isopropyl ether	U		0.320	1.00	1	03/08/2017 20:09	WG959106
Ethylbenzene	44.0		0.384	1.00	1	03/08/2017 20:09	WG959106
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/08/2017 20:09	WG959106
Isopropylbenzene	51.6		0.326	1.00	1	03/08/2017 20:09	WG959106
p-Isopropyltoluene	4.38		0.350	1.00	1	03/08/2017 20:09	WG959106
2-Butanone (MEK)	U		3.93	10.0	1	03/08/2017 20:09	WG959106
Methylene Chloride	U		1.00	5.00	1	03/08/2017 20:09	WG959106
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	03/08/2017 20:09	WG959106
Methyl tert-butyl ether	U		0.367	1.00	1	03/08/2017 20:09	WG959106
Naphthalene	21.2		1.00	5.00	1	03/08/2017 20:09	WG959106
n-Propylbenzene	190		0.349	1.00	1	03/08/2017 20:09	WG959106
Styrene	U		0.307	1.00	1	03/08/2017 20:09	WG959106
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/08/2017 20:09	WG959106
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/08/2017 20:09	WG959106
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/08/2017 20:09	WG959106
Tetrachloroethene	U		0.372	1.00	1	03/08/2017 20:09	WG959106
Toluene	3.13		0.412	1.00	1	03/08/2017 20:09	WG959106
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/08/2017 20:09	WG959106
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/08/2017 20:09	WG959106
1,1,1-Trichloroethane	U		0.319	1.00	1	03/08/2017 20:09	WG959106
1,1,2-Trichloroethane	U		0.383	1.00	1	03/08/2017 20:09	WG959106
Trichloroethene	U		0.398	1.00	1	03/08/2017 20:09	WG959106
Trichlorofluoromethane	U		1.20	5.00	1	03/08/2017 20:09	WG959106
1,2,3-Trichloropropane	U		0.807	2.50	1	03/08/2017 20:09	WG959106
1,2,4-Trimethylbenzene	468		3.73	10.0	10	03/10/2017 05:58	WG959106
1,2,3-Trimethylbenzene	134		0.321	1.00	1	03/08/2017 20:09	WG959106
1,3,5-Trimethylbenzene	181		0.387	1.00	1	03/08/2017 20:09	WG959106
Vinyl chloride	U		0.259	1.00	1	03/08/2017 20:09	WG959106
Xylenes, Total	120		1.06	3.00	1	03/08/2017 20:09	WG959106
(S) Toluene-d8	101			80.0-120		03/10/2017 05:58	WG959106
(S) Toluene-d8	107			80.0-120		03/08/2017 20:09	WG959106
(S) Dibromofluoromethane	98.0			76.0-123		03/10/2017 05:58	WG959106
(S) Dibromofluoromethane	104			76.0-123		03/08/2017 20:09	WG959106
(S) 4-Bromofluorobenzene	80.4			80.0-120		03/08/2017 20:09	WG959106
(S) 4-Bromofluorobenzene	104			80.0-120		03/10/2017 05:58	WG959106

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	688		165	500	2	03/08/2017 20:12	WG958334
Residual Range Organics (RRO)	U		330	1000	2	03/08/2017 20:12	WG958334
(S) o-Terphenyl	102			52.0-156		03/08/2017 20:12	WG958334

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	03/08/2017 12:37	WG958443
Acenaphthene	0.138		0.0100	0.0500	1	03/08/2017 12:37	WG958443
Acenaphthylene	0.0246	J	0.0120	0.0500	1	03/08/2017 12:37	WG958443
Benzo(a)anthracene	U		0.00410	0.0500	1	03/08/2017 12:37	WG958443



Collected date/time: 03/01/17 14:50

L893941

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	U		0.0116	0.0500	1	03/08/2017 12:37	WG958443
Benzo(b)fluoranthene	U		0.00212	0.0500	1	03/08/2017 12:37	WG958443
Benzo(g,h,i)perylene	U		0.00227	0.0500	1	03/08/2017 12:37	WG958443
Benzo(k)fluoranthene	U		0.0136	0.0500	1	03/08/2017 12:37	WG958443
Chrysene	U		0.0108	0.0500	1	03/08/2017 12:37	WG958443
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	03/08/2017 12:37	WG958443
Fluoranthene	U		0.0157	0.0500	1	03/08/2017 12:37	WG958443
Fluorene	0.326		0.00850	0.0500	1	03/08/2017 12:37	WG958443
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	03/08/2017 12:37	WG958443
Naphthalene	16.5		0.0198	0.250	1	03/08/2017 12:37	WG958443
Phenanthrene	0.162		0.00820	0.0500	1	03/08/2017 12:37	WG958443
Pyrene	U		0.0117	0.0500	1	03/08/2017 12:37	WG958443
1-Methylnaphthalene	37.7		0.00821	0.250	1	03/08/2017 12:37	WG958443
2-Methylnaphthalene	57.1		0.00902	0.250	1	03/08/2017 12:37	WG958443
2-Chloronaphthalene	U		0.00647	0.250	1	03/08/2017 12:37	WG958443
(S) Nitrobenzene-d5	145			31.0-160		03/08/2017 12:37	WG958443
(S) 2-Fluorobiphenyl	84.0			48.0-148		03/08/2017 12:37	WG958443
(S) p-Terphenyl-d14	69.1			37.0-146		03/08/2017 12:37	WG958443

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.1		1	03/09/2017 09:17	WG959282

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.00329	0.0235	1	03/08/2017 15:40	WG958303

Metals (ICP) by Method 6010C

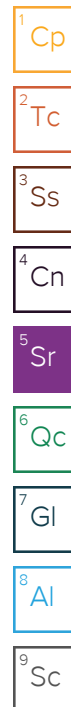
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.57	J	0.764	2.35	1	03/08/2017 13:28	WG958474
Barium	43.1		0.200	0.588	1	03/08/2017 13:28	WG958474
Cadmium	0.102	J	0.0823	0.588	1	03/08/2017 13:28	WG958474
Chromium	24.4		0.165	1.18	1	03/08/2017 13:28	WG958474
Lead	1.84		0.223	0.588	1	03/08/2017 13:28	WG958474
Selenium	U		0.870	2.35	1	03/08/2017 13:28	WG958474
Silver	U		0.329	1.18	1	03/08/2017 13:28	WG958474

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Gasoline Range Organics-NWTPH	0.724		0.0398	0.118	1	03/08/2017 16:22	WG958705
(S) a,a,a-Trifluorotoluene(FID)	86.2			77.0-120		03/08/2017 16:22	WG958705

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0118	0.0588	1	03/09/2017 16:49	WG959350
Acrylonitrile	U		0.00210	0.0118	1	03/09/2017 16:49	WG959350
Benzene	0.00237		0.000317	0.00118	1	03/09/2017 16:49	WG959350
Bromobenzene	U		0.000334	0.00118	1	03/09/2017 16:49	WG959350
Bromodichloromethane	U		0.000299	0.00118	1	03/09/2017 16:49	WG959350
Bromoform	U		0.000498	0.00118	1	03/09/2017 16:49	WG959350
Bromomethane	U		0.00158	0.00588	1	03/09/2017 16:49	WG959350
n-Butylbenzene	0.00471		0.000303	0.00118	1	03/09/2017 16:49	WG959350
sec-Butylbenzene	0.00578		0.000236	0.00118	1	03/09/2017 16:49	WG959350
tert-Butylbenzene	U		0.000242	0.00118	1	03/09/2017 16:49	WG959350
Carbon tetrachloride	U		0.000386	0.00118	1	03/09/2017 16:49	WG959350
Chlorobenzene	U		0.000249	0.00118	1	03/09/2017 16:49	WG959350
Chlorodibromomethane	U		0.000438	0.00118	1	03/09/2017 16:49	WG959350
Chloroethane	U		0.00111	0.00588	1	03/09/2017 16:49	WG959350
Chloroform	U		0.000269	0.00588	1	03/09/2017 16:49	WG959350
Chloromethane	U		0.000441	0.00294	1	03/09/2017 16:49	WG959350
2-Chlorotoluene	U		0.000354	0.00118	1	03/09/2017 16:49	WG959350
4-Chlorotoluene	U		0.000282	0.00118	1	03/09/2017 16:49	WG959350
1,2-Dibromo-3-Chloropropane	U		0.00123	0.00588	1	03/09/2017 16:49	WG959350
1,2-Dibromoethane	U		0.000403	0.00118	1	03/09/2017 16:49	WG959350
Dibromomethane	U		0.000449	0.00118	1	03/09/2017 16:49	WG959350
1,2-Dichlorobenzene	U		0.000358	0.00118	1	03/09/2017 16:49	WG959350
1,3-Dichlorobenzene	U		0.000281	0.00118	1	03/09/2017 16:49	WG959350
1,4-Dichlorobenzene	U		0.000266	0.00118	1	03/09/2017 16:49	WG959350
Dichlorodifluoromethane	U		0.000838	0.00588	1	03/09/2017 16:49	WG959350
1,1-Dichloroethane	U		0.000234	0.00118	1	03/09/2017 16:49	WG959350
1,2-Dichloroethane	U		0.000311	0.00118	1	03/09/2017 16:49	WG959350





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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloroethene	U		0.000356	0.00118	1	03/09/2017 16:49	WG959350
cis-1,2-Dichloroethene	U		0.000276	0.00118	1	03/09/2017 16:49	WG959350
trans-1,2-Dichloroethene	U		0.000310	0.00118	1	03/09/2017 16:49	WG959350
1,2-Dichloropropane	U		0.000421	0.00118	1	03/09/2017 16:49	WG959350
1,1-Dichloropropene	U		0.000373	0.00118	1	03/09/2017 16:49	WG959350
1,3-Dichloropropane	U		0.000243	0.00118	1	03/09/2017 16:49	WG959350
cis-1,3-Dichloropropene	U		0.000308	0.00118	1	03/09/2017 16:49	WG959350
trans-1,3-Dichloropropene	U		0.000314	0.00118	1	03/09/2017 16:49	WG959350
2,2-Dichloropropane	U		0.000328	0.00118	1	03/09/2017 16:49	WG959350
Di-isopropyl ether	U		0.000291	0.00118	1	03/09/2017 16:49	WG959350
Ethylbenzene	0.00130		0.000349	0.00118	1	03/09/2017 16:49	WG959350
Hexachloro-1,3-butadiene	U		0.000402	0.00118	1	03/09/2017 16:49	WG959350
Isopropylbenzene	0.00673		0.000286	0.00118	1	03/09/2017 16:49	WG959350
p-Isopropyltoluene	0.000751	J	0.000240	0.00118	1	03/09/2017 16:49	WG959350
2-Butanone (MEK)	U		0.00550	0.0118	1	03/09/2017 16:49	WG959350
Methylene Chloride	U		0.00118	0.00588	1	03/09/2017 16:49	WG959350
4-Methyl-2-pentanone (MIBK)	U		0.00221	0.0118	1	03/09/2017 16:49	WG959350
Methyl tert-butyl ether	U		0.000249	0.00118	1	03/09/2017 16:49	WG959350
Naphthalene	0.00125	J	0.00118	0.00588	1	03/09/2017 16:49	WG959350
n-Propylbenzene	0.0314		0.000242	0.00118	1	03/09/2017 16:49	WG959350
Styrene	U		0.000275	0.00118	1	03/09/2017 16:49	WG959350
1,1,1,2-Tetrachloroethane	U		0.000310	0.00118	1	03/09/2017 16:49	WG959350
1,1,2,2-Tetrachloroethane	U		0.000429	0.00118	1	03/09/2017 16:49	WG959350
1,1,2-Trichlorotrifluoroethane	U		0.000429	0.00118	1	03/09/2017 16:49	WG959350
Tetrachloroethene	U		0.000324	0.00118	1	03/09/2017 16:49	WG959350
Toluene	0.00145	J	0.000510	0.00588	1	03/09/2017 16:49	WG959350
1,2,3-Trichlorobenzene	U		0.000360	0.00118	1	03/09/2017 16:49	WG959350
1,2,4-Trichlorobenzene	U		0.000456	0.00118	1	03/09/2017 16:49	WG959350
1,1,1-Trichloroethane	U		0.000336	0.00118	1	03/09/2017 16:49	WG959350
1,1,2-Trichloroethane	U		0.000326	0.00118	1	03/09/2017 16:49	WG959350
Trichloroethene	U		0.000328	0.00118	1	03/09/2017 16:49	WG959350
Trichlorofluoromethane	U		0.000449	0.00588	1	03/09/2017 16:49	WG959350
1,2,3-Trichloropropane	U		0.000871	0.00294	1	03/09/2017 16:49	WG959350
1,2,4-Trimethylbenzene	0.000567	J	0.000248	0.00118	1	03/09/2017 16:49	WG959350
1,2,3-Trimethylbenzene	0.00413		0.000337	0.00118	1	03/09/2017 16:49	WG959350
Vinyl chloride	U		0.000342	0.00118	1	03/09/2017 16:49	WG959350
1,3,5-Trimethylbenzene	0.000397	J	0.000313	0.00118	1	03/09/2017 16:49	WG959350
Xylenes, Total	0.00283	J	0.000820	0.00353	1	03/09/2017 16:49	WG959350
(S) Toluene-d8	91.2			80.0-120		03/09/2017 16:49	WG959350
(S) Dibromofluoromethane	108			74.0-131		03/09/2017 16:49	WG959350
(S) 4-Bromofluorobenzene	78.1			64.0-132		03/09/2017 16:49	WG959350

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

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	3.13	J	1.55	4.70	1	03/09/2017 00:39	WG958691
Residual Range Organics (RRO)	U		3.88	11.8	1	03/09/2017 00:39	WG958691
(S) o-Terphenyl	87.4			18.0-148		03/09/2017 00:39	WG958691



Collected date/time: 03/01/17 00:00

L893941

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00353	J	0.000705	0.00705	1	03/14/2017 17:19	WG959087
Acenaphthene	0.00267	J	0.000705	0.00705	1	03/14/2017 17:19	WG959087
Acenaphthylene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Benzo(a)anthracene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Benzo(a)pyrene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Benzo(b)fluoranthene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Benzo(g,h,i)perylene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Benzo(k)fluoranthene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Chrysene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Dibenz(a,h)anthracene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Fluoranthene	0.000956	J	0.000705	0.00705	1	03/14/2017 17:19	WG959087
Fluorene	0.00884		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Indeno(1,2,3-cd)pyrene	U		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Naphthalene	0.0405		0.00235	0.0235	1	03/14/2017 17:19	WG959087
Phenanthrene	0.00817		0.000705	0.00705	1	03/14/2017 17:19	WG959087
Pyrene	0.00301	J	0.000705	0.00705	1	03/14/2017 17:19	WG959087
1-Methylnaphthalene	0.207		0.00235	0.0235	1	03/14/2017 17:19	WG959087
2-Methylnaphthalene	0.295		0.00235	0.0235	1	03/14/2017 17:19	WG959087
2-Chloronaphthalene	U		0.00235	0.0235	1	03/14/2017 17:19	WG959087
(S) Nitrobenzene-d5	84.8			14.0-149		03/14/2017 17:19	WG959087
(S) 2-Fluorobiphenyl	70.2			34.0-125		03/14/2017 17:19	WG959087
(S) p-Terphenyl-d14	80.1			23.0-120		03/14/2017 17:19	WG959087

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0490	0.200	1	03/08/2017 19:03	WG958806

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic,Dissolved	U		6.50	10.0	1	03/07/2017 20:28	WG958726
Barium,Dissolved	41.7		1.70	5.00	1	03/07/2017 20:28	WG958726
Cadmium,Dissolved	U		0.700	2.00	1	03/07/2017 20:28	WG958726
Chromium,Dissolved	U		1.40	10.0	1	03/07/2017 20:28	WG958726
Lead,Dissolved	U		1.90	5.00	1	03/07/2017 20:28	WG958726
Selenium,Dissolved	U		7.40	10.0	1	03/07/2017 20:28	WG958726
Silver,Dissolved	U		2.80	5.00	1	03/07/2017 20:28	WG958726

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	5520		31.6	100	1	03/09/2017 18:21	WG957976
(S) a,a,a-Trifluorotoluene(FID) 114				77.0-122		03/09/2017 18:21	WG957976

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	03/08/2017 20:32	WG959106
Acrolein	U	J4	8.87	50.0	1	03/08/2017 20:32	WG959106
Acrylonitrile	U		1.87	10.0	1	03/08/2017 20:32	WG959106
Benzene	5.40		0.331	1.00	1	03/08/2017 20:32	WG959106
Bromobenzene	U		0.352	1.00	1	03/08/2017 20:32	WG959106
Bromodichloromethane	U		0.380	1.00	1	03/08/2017 20:32	WG959106
Bromoform	U		0.469	1.00	1	03/08/2017 20:32	WG959106
Bromomethane	U		0.866	5.00	1	03/08/2017 20:32	WG959106
n-Butylbenzene	14.9		0.361	1.00	1	03/08/2017 20:32	WG959106
sec-Butylbenzene	17.3		0.365	1.00	1	03/08/2017 20:32	WG959106
tert-Butylbenzene	U		0.399	1.00	1	03/08/2017 20:32	WG959106
Carbon tetrachloride	U		0.379	1.00	1	03/08/2017 20:32	WG959106
Chlorobenzene	U		0.348	1.00	1	03/08/2017 20:32	WG959106
Chlorodibromomethane	U		0.327	1.00	1	03/08/2017 20:32	WG959106
Chloroethane	U		0.453	5.00	1	03/08/2017 20:32	WG959106
Chloroform	U		0.324	5.00	1	03/08/2017 20:32	WG959106
Chloromethane	U		0.276	2.50	1	03/08/2017 20:32	WG959106
2-Chlorotoluene	U		0.375	1.00	1	03/08/2017 20:32	WG959106
4-Chlorotoluene	U		0.351	1.00	1	03/08/2017 20:32	WG959106
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/08/2017 20:32	WG959106
1,2-Dibromoethane	U		0.381	1.00	1	03/08/2017 20:32	WG959106
Dibromomethane	U		0.346	1.00	1	03/08/2017 20:32	WG959106
1,2-Dichlorobenzene	U		0.349	1.00	1	03/08/2017 20:32	WG959106
1,3-Dichlorobenzene	U		0.220	1.00	1	03/08/2017 20:32	WG959106
1,4-Dichlorobenzene	U		0.274	1.00	1	03/08/2017 20:32	WG959106
Dichlorodifluoromethane	U		0.551	5.00	1	03/08/2017 20:32	WG959106
1,1-Dichloroethane	U		0.259	1.00	1	03/08/2017 20:32	WG959106
1,2-Dichloroethane	U		0.361	1.00	1	03/08/2017 20:32	WG959106
1,1-Dichloroethene	U		0.398	1.00	1	03/08/2017 20:32	WG959106
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/08/2017 20:32	WG959106
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/08/2017 20:32	WG959106
1,2-Dichloropropane	U		0.306	1.00	1	03/08/2017 20:32	WG959106



Collected date/time: 03/01/17 00:00

L893941

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.352	1.00	1	03/08/2017 20:32	WG959106
1,3-Dichloropropane	U		0.366	1.00	1	03/08/2017 20:32	WG959106
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/08/2017 20:32	WG959106
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/08/2017 20:32	WG959106
2,2-Dichloropropane	U		0.321	1.00	1	03/08/2017 20:32	WG959106
Di-isopropyl ether	U		0.320	1.00	1	03/08/2017 20:32	WG959106
Ethylbenzene	43.4		0.384	1.00	1	03/08/2017 20:32	WG959106
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/08/2017 20:32	WG959106
Isopropylbenzene	51.2		0.326	1.00	1	03/08/2017 20:32	WG959106
p-Isopropyltoluene	4.35		0.350	1.00	1	03/08/2017 20:32	WG959106
2-Butanone (MEK)	U		3.93	10.0	1	03/08/2017 20:32	WG959106
Methylene Chloride	U		1.00	5.00	1	03/08/2017 20:32	WG959106
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	03/08/2017 20:32	WG959106
Methyl tert-butyl ether	U		0.367	1.00	1	03/08/2017 20:32	WG959106
Naphthalene	21.8		1.00	5.00	1	03/08/2017 20:32	WG959106
n-Propylbenzene	187		0.349	1.00	1	03/08/2017 20:32	WG959106
Styrene	U		0.307	1.00	1	03/08/2017 20:32	WG959106
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/08/2017 20:32	WG959106
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/08/2017 20:32	WG959106
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/08/2017 20:32	WG959106
Tetrachloroethene	U		0.372	1.00	1	03/08/2017 20:32	WG959106
Toluene	3.18		0.412	1.00	1	03/08/2017 20:32	WG959106
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/08/2017 20:32	WG959106
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/08/2017 20:32	WG959106
1,1,1-Trichloroethane	U		0.319	1.00	1	03/08/2017 20:32	WG959106
1,1,2-Trichloroethane	U		0.383	1.00	1	03/08/2017 20:32	WG959106
Trichloroethene	U		0.398	1.00	1	03/08/2017 20:32	WG959106
Trichlorofluoromethane	U		1.20	5.00	1	03/08/2017 20:32	WG959106
1,2,3-Trichloropropane	U		0.807	2.50	1	03/08/2017 20:32	WG959106
1,2,4-Trimethylbenzene	509		3.73	10.0	10	03/10/2017 06:14	WG959106
1,2,3-Trimethylbenzene	139		0.321	1.00	1	03/08/2017 20:32	WG959106
1,3,5-Trimethylbenzene	181		0.387	1.00	1	03/08/2017 20:32	WG959106
Vinyl chloride	U		0.259	1.00	1	03/08/2017 20:32	WG959106
Xylenes, Total	118		1.06	3.00	1	03/08/2017 20:32	WG959106
(S) Toluene-d8	102			80.0-120		03/10/2017 06:14	WG959106
(S) Toluene-d8	107			80.0-120		03/08/2017 20:32	WG959106
(S) Dibromofluoromethane	96.6			76.0-123		03/10/2017 06:14	WG959106
(S) Dibromofluoromethane	103			76.0-123		03/08/2017 20:32	WG959106
(S) 4-Bromofluorobenzene	78.5	J2		80.0-120		03/08/2017 20:32	WG959106
(S) 4-Bromofluorobenzene	105			80.0-120		03/10/2017 06:14	WG959106

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	771		165	500	2	03/08/2017 20:28	WG958334
Residual Range Organics (RRO)	U		330	1000	2	03/08/2017 20:28	WG958334
(S) o-Terphenyl	93.6			52.0-156		03/08/2017 20:28	WG958334

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	03/08/2017 13:00	WG958443
Acenaphthene	0.144		0.0100	0.0500	1	03/08/2017 13:00	WG958443
Acenaphthylene	0.0256	J	0.0120	0.0500	1	03/08/2017 13:00	WG958443
Benzo(a)anthracene	U		0.00410	0.0500	1	03/08/2017 13:00	WG958443



Collected date/time: 03/01/17 00:00

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	U		0.0116	0.0500	1	03/08/2017 13:00	WG958443
Benzo(b)fluoranthene	U		0.00212	0.0500	1	03/08/2017 13:00	WG958443
Benzo(g,h,i)perylene	U		0.00227	0.0500	1	03/08/2017 13:00	WG958443
Benzo(k)fluoranthene	U		0.0136	0.0500	1	03/08/2017 13:00	WG958443
Chrysene	U		0.0108	0.0500	1	03/08/2017 13:00	WG958443
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	03/08/2017 13:00	WG958443
Fluoranthene	U		0.0157	0.0500	1	03/08/2017 13:00	WG958443
Fluorene	0.339		0.00850	0.0500	1	03/08/2017 13:00	WG958443
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	03/08/2017 13:00	WG958443
Naphthalene	18.3		0.0198	0.250	1	03/08/2017 13:00	WG958443
Phenanthrene	0.160		0.00820	0.0500	1	03/08/2017 13:00	WG958443
Pyrene	U		0.0117	0.0500	1	03/08/2017 13:00	WG958443
1-Methylnaphthalene	40.2		0.00821	0.250	1	03/08/2017 13:00	WG958443
2-Methylnaphthalene	60.8		0.00902	0.250	1	03/08/2017 13:00	WG958443
2-Chloronaphthalene	U		0.00647	0.250	1	03/08/2017 13:00	WG958443
(S) Nitrobenzene-d5	158			31.0-160		03/08/2017 13:00	WG958443
(S) 2-Fluorobiphenyl	98.3			48.0-148		03/08/2017 13:00	WG958443
(S) p-Terphenyl-d14	68.6			37.0-146		03/08/2017 13:00	WG958443

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

(MB) R3202594-1 03/10/17 09:48

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000400			

L893937-04 Original Sample (OS) • Duplicate (DUP)

(OS) L893937-04 03/10/17 09:48 • (DUP) R3202594-3 03/10/17 09:48

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	87.1	86.3	1	0.825		5

Laboratory Control Sample (LCS)

(LCS) R3202594-2 03/10/17 09:48

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3202274-1 03/09/17 09:17

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000700			

L893945-01 Original Sample (OS) • Duplicate (DUP)

(OS) L893945-01 03/09/17 09:17 • (DUP) R3202274-3 03/09/17 09:17

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	84.7	81.3	1	4.10		5

Laboratory Control Sample (LCS)

(LCS) R3202274-2 03/09/17 09:17

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

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3201928-1 03/08/17 17:52

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Mercury,Dissolved	U		0.0490	0.200

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

(LCS) R3201928-2 03/08/17 17:54 • (LCSD) R3201928-3 03/08/17 17:57

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Mercury,Dissolved	3.00	3.20	3.47	107	116	80-120			8	20

L894310-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L894310-03 03/08/17 17:59 • (MS) R3201928-4 03/08/17 18:01 • (MSD) R3201928-5 03/08/17 18:04

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury,Dissolved	3.00	U	4.04	3.97	135	132	1	75-125	J5	J5	2	20



Method Blank (MB)

(MB) R3201870-1 03/08/17 13:47

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0028	0.0200

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

(LCS) R3201870-2 03/08/17 13:50 • (LCSD) R3201870-3 03/08/17 13:52

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Mercury	0.300	0.252	0.244	84	81	80-120			4	20

L893889-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893889-01 03/08/17 13:55 • (MS) R3201870-4 03/08/17 14:03 • (MSD) R3201870-5 03/08/17 14:12

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.300	ND	0.258	0.266	86	89	1	75-125			3	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3201846-1 03/08/17 12:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3201846-2 03/08/17 12:34 • (LCSD) R3201846-3 03/08/17 12:37

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 %
Arsenic	100	101	102	101	102	80-120			1	20
Barium	100	101	103	101	103	80-120			1	20
Cadmium	100	99.2	101	99	101	80-120			1	20
Chromium	100	100	101	100	101	80-120			0	20
Lead	100	100	102	100	102	80-120			2	20
Selenium	100	100	102	100	102	80-120			1	20
Silver	20.0	18.8	18.8	94	94	80-120			0	20

L893353-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893353-08 03/08/17 12:39 • (MS) R3201846-6 03/08/17 12:47 • (MSD) R3201846-7 03/08/17 12:49

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	117	1.47	117	120	98	101	1	75-125			3	20
Barium	117	36.9	147	152	94	98	1	75-125			3	20
Cadmium	117	0.120	115	118	98	101	1	75-125			3	20
Chromium	117	17.4	133	136	99	102	1	75-125			2	20
Lead	117	1.58	119	121	100	102	1	75-125			2	20
Selenium	117	U	116	119	99	102	1	75-125			3	20
Silver	23.4	U	22.4	22.5	96	96	1	75-125			0	20



Method Blank (MB)

(MB) R3201617-1 03/07/17 20:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic,Dissolved	U		6.50	10.0
Barium,Dissolved	U		1.70	5.00
Cadmium,Dissolved	U		0.700	2.00
Chromium,Dissolved	U		1.40	10.0
Lead,Dissolved	U		1.90	5.00
Selenium,Dissolved	U		7.40	10.0
Silver,Dissolved	U		2.80	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3201617-2 03/07/17 20:07 • (LCSD) R3201617-3 03/07/17 20:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	1010	1010	101	101	80-120			1	20
Barium,Dissolved	1000	1010	1010	101	101	80-120			0	20
Cadmium,Dissolved	1000	1010	1010	101	101	80-120			0	20
Chromium,Dissolved	1000	1040	1030	104	103	80-120			0	20
Lead,Dissolved	1000	1030	1020	103	102	80-120			1	20
Selenium,Dissolved	1000	1020	1010	102	101	80-120			1	20
Silver,Dissolved	200	194	193	97	96	80-120			0	20

L893941-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893941-03 03/07/17 20:12 • (MS) R3201617-5 03/07/17 20:17 • (MSD) R3201617-6 03/07/17 20:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	U	1030	1020	103	102	1	75-125			1	20
Barium,Dissolved	1000	39.9	1030	1020	99	98	1	75-125			1	20
Cadmium,Dissolved	1000	U	1010	1000	101	100	1	75-125			1	20
Chromium,Dissolved	1000	U	1020	1010	102	101	1	75-125			1	20
Lead,Dissolved	1000	U	1040	1020	104	102	1	75-125			1	20
Selenium,Dissolved	1000	U	1020	1010	102	101	1	75-125			1	20
Silver,Dissolved	200	U	193	191	96	95	1	75-125			1	20

Method Blank (MB)

(MB) R3202669-3 03/09/17 01:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	95.0			77.0-122

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

(LCS) R3202669-1 03/09/17 00:07 • (LCSD) R3202669-2 03/09/17 00:29

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Gasoline Range Organics-NWTPH	5500	5670	5560	103	101	72.0-134			1.97	20
(S) a,a,a-Trifluorotoluene(FID)				105	105	77.0-122				

L893938-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893938-01 03/09/17 08:31 • (MS) R3202669-4 03/09/17 08:53 • (MSD) R3202669-5 03/09/17 09:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Gasoline Range Organics-NWTPH	5500	2680	7670	9870	90.7	131	1	23.0-159		J3	25.1	20
(S) a,a,a-Trifluorotoluene(FID)					111	109		77.0-122				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3201742-1 03/07/17 23:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID) 94.0				77.0-120

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

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

(LCS) R3201742-4 03/08/17 08:31 • (LCSD) R3201742-5 03/08/17 08:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	5.42	5.42	98.5	98.6	70.0-133			0.0700	20
(S) a,a,a-Trifluorotoluene(FID)				110	110	77.0-120				

7Gl

8Al

9Sc

L892831-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L892831-03 03/08/17 02:13 • (MS) R3201742-2 03/08/17 00:22 • (MSD) R3201742-3 03/08/17 00:44

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	6.75	156	177	178	12.6	12.9	25	10.0-146			0.350	30
(S) a,a,a-Trifluorotoluene(FID)					99.9	101		77.0-120				



Method Blank (MB)

(MB) R3202671-3 03/08/17 13:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPHG C6 - C12	U		0.0339	0.100
(S) a,a,a-Trifluorotoluene(FID) 94.6				77.0-120

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

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

(LCS) R3202671-1 03/08/17 12:17 • (LCSD) R3202671-2 03/08/17 12:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPHG C6 - C12	5.50	5.56	5.64	101	103	70.0-133			1.50	20
(S) a,a,a-Trifluorotoluene(FID)				109	110	77.0-120				



Method Blank (MB)

(MB) R3201924-3 03/08/17 09:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000270	0.00100
Ethylbenzene	U		0.000297	0.00100
Toluene	U		0.000434	0.00500
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	102			80.0-120
(S) Dibromofluoromethane	102			74.0-131
(S) a,a,a-Trifluorotoluene	98.6			80.0-120
(S) 4-Bromofluorobenzene	99.9			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3201924-1 03/08/17 08:53 • (LCSD) R3201924-2 03/08/17 09:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0243	0.0247	97.3	98.8	71.0-124			1.49	20
Ethylbenzene	0.0250	0.0246	0.0243	98.4	97.0	77.0-120			1.37	20
Toluene	0.0250	0.0248	0.0247	99.1	98.7	77.0-120			0.380	20
Xylenes, Total	0.0750	0.0727	0.0720	96.9	96.0	77.0-120			0.970	20
(S) Toluene-d8				100	102	80.0-120				
(S) Dibromofluoromethane				103	106	74.0-131				
(S) a,a,a-Trifluorotoluene				98.5	100	80.0-120				
(S) 4-Bromofluorobenzene				100	98.2	64.0-132				

L893921-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893921-01 03/08/17 13:04 • (MS) R3201924-4 03/08/17 14:25 • (MSD) R3201924-5 03/08/17 14:44

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.00154	0.0178	0.0231	64.9	86.4	1	13.0-146			26.3	27
Ethylbenzene	0.0250	ND	0.0165	0.0219	62.8	84.5	1	10.0-147			28.4	31
Toluene	0.0250	ND	0.0190	0.0249	69.3	92.5	1	10.0-144			26.5	28
Xylenes, Total	0.0750	ND	0.0464	0.0636	59.9	82.8	1	10.0-150		J3	31.3	31
(S) Toluene-d8					101	103		80.0-120				
(S) Dibromofluoromethane					111	113		74.0-131				
(S) a,a,a-Trifluorotoluene					97.2	98.2		80.0-120				
(S) 4-Bromofluorobenzene					97.8	97.3		64.0-132				

Method Blank (MB)

(MB) R3202361-3 03/09/17 12:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3202361-3 03/09/17 12:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	95.8			80.0-120
(S) Dibromofluoromethane	99.7			74.0-131
(S) 4-Bromofluorobenzene	96.3			64.0-132

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3202361-1 03/09/17 11:07 • (LCSD) R3202361-2 03/09/17 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.124	0.137	99.4	110	11.0-160			9.86	23
Acrylonitrile	0.125	0.121	0.125	97.1	100	61.0-143			3.21	20
Benzene	0.0250	0.0242	0.0245	96.7	98.0	71.0-124			1.28	20
Bromobenzene	0.0250	0.0237	0.0238	94.6	95.3	78.0-120			0.750	20
Bromodichloromethane	0.0250	0.0254	0.0253	102	101	75.0-120			0.400	20



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

(LCS) R3202361-1 03/09/17 11:07 • (LCSD) R3202361-2 03/09/17 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.0250	0.0249	0.0260	99.7	104	65.0-133			4.34	20
Bromomethane	0.0250	0.0278	0.0281	111	112	26.0-160			1.11	20
n-Butylbenzene	0.0250	0.0248	0.0239	99.2	95.7	73.0-126			3.56	20
sec-Butylbenzene	0.0250	0.0247	0.0245	98.8	98.0	75.0-121			0.840	20
tert-Butylbenzene	0.0250	0.0257	0.0254	103	101	74.0-122			1.11	20
Carbon tetrachloride	0.0250	0.0238	0.0244	95.2	97.6	66.0-123			2.52	20
Chlorobenzene	0.0250	0.0260	0.0263	104	105	79.0-121			1.16	20
Chlorodibromomethane	0.0250	0.0265	0.0267	106	107	74.0-128			0.600	20
Chloroethane	0.0250	0.0251	0.0254	100	101	51.0-147			1.24	20
Chloroform	0.0250	0.0248	0.0250	99.2	100	73.0-123			0.970	20
Chloromethane	0.0250	0.0197	0.0200	78.7	80.0	51.0-138			1.73	20
2-Chlorotoluene	0.0250	0.0248	0.0248	99.2	99.1	72.0-124			0.0900	20
4-Chlorotoluene	0.0250	0.0243	0.0245	97.4	98.0	78.0-120			0.700	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0251	0.0254	100	102	65.0-126			1.24	20
1,2-Dibromoethane	0.0250	0.0258	0.0262	103	105	78.0-122			1.37	20
Dibromomethane	0.0250	0.0256	0.0259	102	104	79.0-120			1.29	20
1,2-Dichlorobenzene	0.0250	0.0254	0.0248	101	99.3	80.0-120			2.17	20
1,3-Dichlorobenzene	0.0250	0.0244	0.0245	97.8	98.0	72.0-123			0.180	20
1,4-Dichlorobenzene	0.0250	0.0244	0.0241	97.7	96.5	77.0-120			1.24	20
Dichlorodifluoromethane	0.0250	0.0208	0.0208	83.4	83.2	49.0-155			0.200	20
1,1-Dichloroethane	0.0250	0.0238	0.0242	95.2	96.6	70.0-128			1.55	20
1,2-Dichloroethane	0.0250	0.0253	0.0259	101	103	69.0-128			2.08	20
1,1-Dichloroethene	0.0250	0.0259	0.0264	104	106	63.0-131			2.06	20
cis-1,2-Dichloroethene	0.0250	0.0252	0.0253	101	101	74.0-123			0.360	20
trans-1,2-Dichloroethene	0.0250	0.0249	0.0251	99.7	100	72.0-122			0.570	20
1,2-Dichloropropane	0.0250	0.0244	0.0244	97.8	97.4	75.0-126			0.360	20
1,1-Dichloropropene	0.0250	0.0252	0.0257	101	103	72.0-130			2.26	20
1,3-Dichloropropane	0.0250	0.0260	0.0257	104	103	80.0-121			1.13	20
cis-1,3-Dichloropropene	0.0250	0.0271	0.0267	109	107	80.0-125			1.50	20
trans-1,3-Dichloropropene	0.0250	0.0251	0.0249	100	99.5	75.0-129			0.800	20
2,2-Dichloropropane	0.0250	0.0229	0.0232	91.6	92.6	60.0-129			1.09	20
Di-isopropyl ether	0.0250	0.0222	0.0227	88.9	90.8	62.0-133			2.13	20
Ethylbenzene	0.0250	0.0252	0.0255	101	102	77.0-120			1.21	20
Hexachloro-1,3-butadiene	0.0250	0.0264	0.0254	106	102	68.0-128			3.78	20
Isopropylbenzene	0.0250	0.0248	0.0250	99.2	100	75.0-120			0.960	20
p-Isopropyltoluene	0.0250	0.0259	0.0255	104	102	74.0-125			1.55	20
2-Butanone (MEK)	0.125	0.132	0.139	106	111	37.0-159			4.58	20
Methylene Chloride	0.0250	0.0247	0.0245	98.6	98.1	67.0-123			0.550	20
4-Methyl-2-pentanone (MIBK)	0.125	0.135	0.138	108	111	60.0-144			2.24	20
Methyl tert-butyl ether	0.0250	0.0238	0.0240	95.1	96.0	66.0-125			0.970	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



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

(LCS) R3202361-1 03/09/17 11:07 • (LCSD) R3202361-2 03/09/17 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.0250	0.0254	0.0251	102	101	64.0-125			0.970	20
n-Propylbenzene	0.0250	0.0248	0.0247	99.0	98.8	78.0-120			0.210	20
Styrene	0.0250	0.0260	0.0261	104	105	78.0-124			0.310	20
1,1,1,2-Tetrachloroethane	0.0250	0.0260	0.0261	104	104	74.0-124			0.120	20
1,1,2,2-Tetrachloroethane	0.0250	0.0245	0.0248	98.1	99.1	73.0-120			0.970	20
Tetrachloroethene	0.0250	0.0269	0.0266	107	106	70.0-127			0.870	20
Toluene	0.0250	0.0238	0.0238	95.0	95.2	77.0-120			0.240	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0265	0.0265	106	106	64.0-135			0.0800	20
1,2,3-Trichlorobenzene	0.0250	0.0274	0.0270	109	108	68.0-126			1.29	20
1,2,4-Trichlorobenzene	0.0250	0.0266	0.0261	106	104	70.0-127			1.97	20
1,1,1-Trichloroethane	0.0250	0.0249	0.0253	99.6	101	69.0-125			1.75	20
1,1,2-Trichloroethane	0.0250	0.0254	0.0259	102	104	78.0-120			1.88	20
Trichloroethene	0.0250	0.0261	0.0256	105	103	79.0-120			1.93	20
Trichlorofluoromethane	0.0250	0.0257	0.0264	103	106	59.0-136			2.88	20
1,2,3-Trichloropropane	0.0250	0.0260	0.0267	104	107	73.0-124			2.80	20
1,2,3-Trimethylbenzene	0.0250	0.0251	0.0247	100	98.6	76.0-120			1.82	20
1,2,4-Trimethylbenzene	0.0250	0.0252	0.0250	101	100	75.0-120			0.640	20
1,3,5-Trimethylbenzene	0.0250	0.0249	0.0251	99.5	100	75.0-120			0.770	20
Vinyl chloride	0.0250	0.0232	0.0236	92.7	94.5	63.0-134			1.95	20
Xylenes, Total	0.0750	0.0748	0.0756	99.7	101	77.0-120			1.06	20
(S) Toluene-d8				97.6	98.1	80.0-120				
(S) Dibromofluoromethane				99.3	100	74.0-131				
(S) 4-Bromofluorobenzene				91.8	93.1	64.0-132				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L894359-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L894359-03 03/09/17 21:03 • (MS) R3202361-4 03/10/17 01:57 • (MSD) R3202361-5 03/10/17 02:17

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 %
Acetone	0.125	ND	1.94	2.50	90.2	116	17.25	10.0-160			25.0	36
Acrylonitrile	0.125	ND	1.87	2.23	86.9	104	17.25	14.0-160			17.6	33
Benzene	0.0250	ND	0.404	0.448	93.7	104	17.25	13.0-146			10.3	27
Bromobenzene	0.0250	ND	0.436	0.478	101	111	17.25	10.0-149			9.26	33
Bromodichloromethane	0.0250	ND	0.419	0.469	97.2	109	17.25	15.0-142			11.2	28
Bromoform	0.0250	ND	0.404	0.444	93.7	103	17.25	10.0-147			9.40	31
Bromomethane	0.0250	ND	0.127	0.113	29.5	26.3	17.25	10.0-160			11.7	32
n-Butylbenzene	0.0250	ND	0.455	0.503	105	117	17.25	10.0-154			10.2	37
sec-Butylbenzene	0.0250	ND	0.482	0.531	112	123	17.25	10.0-151			9.83	36
tert-Butylbenzene	0.0250	ND	0.480	0.532	111	123	17.25	10.0-152			10.3	35



L894359-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L894359-03 03/09/17 21:03 • (MS) R3202361-4 03/10/17 01:57 • (MSD) R3202361-5 03/10/17 02:17

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 %
Carbon tetrachloride	0.0250	ND	0.389	0.434	90.3	101	17.25	13.0-140			10.8	30
Chlorobenzene	0.0250	ND	0.458	0.513	106	119	17.25	10.0-149			11.3	31
Chlorodibromomethane	0.0250	ND	0.438	0.483	102	112	17.25	12.0-147			9.86	29
Chloroethane	0.0250	ND	0.0511	0.0377	11.9	8.74	17.25	10.0-159		J6	30.3	33
Chloroform	0.0250	ND	0.428	0.477	99.3	111	17.25	18.0-148			10.7	28
Chloromethane	0.0250	ND	0.323	0.362	74.9	83.9	17.25	10.0-146			11.2	29
2-Chlorotoluene	0.0250	ND	0.465	0.509	108	118	17.25	10.0-151			9.05	35
4-Chlorotoluene	0.0250	ND	0.443	0.486	103	113	17.25	10.0-150			9.30	35
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.388	0.431	89.9	99.9	17.25	10.0-149			10.5	34
1,2-Dibromoethane	0.0250	ND	0.431	0.477	99.8	111	17.25	14.0-145			10.1	28
Dibromomethane	0.0250	ND	0.409	0.451	94.8	105	17.25	18.0-144			9.85	27
1,2-Dichlorobenzene	0.0250	ND	0.438	0.488	102	113	17.25	10.0-153			10.7	34
1,3-Dichlorobenzene	0.0250	ND	0.455	0.506	106	117	17.25	10.0-150			10.6	35
1,4-Dichlorobenzene	0.0250	ND	0.434	0.479	101	111	17.25	10.0-148			9.88	34
Dichlorodifluoromethane	0.0250	ND	0.363	0.412	84.1	95.6	17.25	10.0-160			12.8	30
1,1-Dichloroethane	0.0250	ND	0.420	0.461	97.3	107	17.25	19.0-148			9.34	28
1,2-Dichloroethane	0.0250	ND	0.413	0.455	95.7	106	17.25	17.0-147			9.77	27
1,1-Dichloroethene	0.0250	ND	0.284	0.377	65.9	87.4	17.25	10.0-150			28.0	31
cis-1,2-Dichloroethene	0.0250	ND	0.419	0.465	97.1	108	17.25	16.0-145			10.3	28
trans-1,2-Dichloroethene	0.0250	ND	0.383	0.418	88.8	97.0	17.25	11.0-142			8.87	29
1,2-Dichloropropane	0.0250	ND	0.422	0.471	97.8	109	17.25	17.0-148			11.1	28
1,1-Dichloropropene	0.0250	ND	0.399	0.439	92.4	102	17.25	10.0-150			9.75	30
1,3-Dichloropropane	0.0250	ND	0.443	0.489	103	113	17.25	16.0-148			9.86	27
cis-1,3-Dichloropropene	0.0250	ND	0.407	0.452	94.4	105	17.25	13.0-150			10.5	28
trans-1,3-Dichloropropene	0.0250	ND	0.396	0.446	91.9	103	17.25	10.0-152			11.7	29
2,2-Dichloropropane	0.0250	ND	0.385	0.426	89.2	98.7	17.25	16.0-143			10.1	30
Di-isopropyl ether	0.0250	ND	0.424	0.466	98.4	108	17.25	16.0-149			9.48	28
Ethylbenzene	0.0250	ND	0.462	0.517	107	120	17.25	10.0-147			11.2	31
Hexachloro-1,3-butadiene	0.0250	ND	0.478	0.546	111	127	17.25	10.0-154			13.2	40
Isopropylbenzene	0.0250	ND	0.471	0.521	109	121	17.25	10.0-147			10.1	33
p-Isopropyltoluene	0.0250	ND	0.481	0.533	112	124	17.25	10.0-156			10.3	37
2-Butanone (MEK)	0.125	ND	2.27	2.57	105	119	17.25	10.0-160			12.2	33
Methylene Chloride	0.0250	ND	0.380	0.425	88.2	98.6	17.25	16.0-139			11.1	29
4-Methyl-2-pentanone (MIBK)	0.125	ND	2.02	2.21	93.7	103	17.25	12.0-160			8.98	32
Methyl tert-butyl ether	0.0250	ND	0.398	0.445	92.3	103	17.25	21.0-145			11.3	29
Naphthalene	0.0250	ND	0.421	0.479	97.7	111	17.25	10.0-153			12.8	36
n-Propylbenzene	0.0250	ND	0.459	0.509	106	118	17.25	10.0-151			10.3	34
Styrene	0.0250	ND	0.455	0.504	105	117	17.25	10.0-155			10.3	34
1,1,1,2-Tetrachloroethane	0.0250	ND	0.471	0.521	109	121	17.25	10.0-147			10.1	30
1,1,2,2-Tetrachloroethane	0.0250	ND	0.394	0.443	91.4	103	17.25	10.0-155			11.6	31

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L894359-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L894359-03 03/09/17 21:03 • (MS) R3202361-4 03/10/17 01:57 • (MSD) R3202361-5 03/10/17 02:17

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 %
Tetrachloroethene	0.0250	ND	0.443	0.492	103	114	17.25	10.0-144			10.5	32
Toluene	0.0250	ND	0.406	0.452	94.1	105	17.25	10.0-144			10.8	28
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.343	0.442	79.4	103	17.25	10.0-153			25.4	33
1,2,3-Trichlorobenzene	0.0250	ND	0.469	0.537	109	125	17.25	10.0-153			13.6	40
1,2,4-Trichlorobenzene	0.0250	ND	0.456	0.523	106	121	17.25	10.0-156			13.8	40
1,1,1-Trichloroethane	0.0250	ND	0.423	0.474	98.0	110	17.25	18.0-145			11.5	29
1,1,2-Trichloroethane	0.0250	ND	0.445	0.486	103	113	17.25	12.0-151			8.76	28
Trichloroethene	0.0250	ND	0.455	0.493	105	114	17.25	11.0-148			7.96	29
Trichlorofluoromethane	0.0250	ND	0.113	0.0759	26.1	17.6	17.25	10.0-157		J3	39.1	34
1,2,3-Trichloropropane	0.0250	ND	0.439	0.476	102	110	17.25	10.0-154			8.16	32
1,2,3-Trimethylbenzene	0.0250	ND	0.449	0.497	104	115	17.25	10.0-150			10.2	33
1,2,4-Trimethylbenzene	0.0250	ND	0.464	0.509	108	118	17.25	10.0-151			9.17	34
1,3,5-Trimethylbenzene	0.0250	ND	0.467	0.522	108	121	17.25	10.0-150			11.1	33
Vinyl chloride	0.0250	ND	0.367	0.407	85.0	94.5	17.25	10.0-150			10.6	29
Xylenes, Total	0.0750	ND	1.36	1.50	105	116	17.25	10.0-150			9.84	31
(S) Toluene-d8					99.2	98.0	80.0-120					
(S) Dibromofluoromethane					96.8	94.3	74.0-131					
(S) 4-Bromofluorobenzene					98.5	96.9	64.0-132					

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3202102-3 03/09/17 10:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000270	0.00100
Ethylbenzene	U		0.000297	0.00100
Toluene	U		0.000434	0.00500
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	103			80.0-120
(S) Dibromofluoromethane	93.3			74.0-131
(S) a,a,a-Trifluorotoluene	103			80.0-120
(S) 4-Bromofluorobenzene	103			64.0-132

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R3202102-1 03/09/17 09:25 • (LCSD) R3202102-2 03/09/17 09:43

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 %
Benzene	0.0250	0.0247	0.0251	98.8	100	71.0-124			1.68	20
Ethylbenzene	0.0250	0.0276	0.0282	110	113	77.0-120			2.11	20
Toluene	0.0250	0.0261	0.0258	104	103	77.0-120			0.880	20
Xylenes, Total	0.0750	0.0846	0.0833	113	111	77.0-120			1.55	20
(S) Toluene-d8				103	102	80.0-120				
(S) Dibromofluoromethane				94.7	93.5	74.0-131				
(S) a,a,a-Trifluorotoluene				104	103	80.0-120				
(S) 4-Bromofluorobenzene				101	99.4	64.0-132				

L894217-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L894217-04 03/09/17 12:01 • (MS) R3202102-4 03/09/17 12:19 • (MSD) R3202102-5 03/09/17 12:36

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0108	0.0206	0.0272	39.0	65.5	1	13.0-146		J3	27.7	27
Ethylbenzene	0.0250	0.00740	0.0201	0.0282	50.9	83.3	1	10.0-147		J3	33.5	31
Toluene	0.0250	0.0243	0.0256	0.0374	5.22	52.4	1	10.0-144	J6	J3	37.4	28
Xylenes, Total	0.0750	0.0400	0.0674	0.0982	36.5	77.6	1	10.0-150		J3	37.2	31
(S) Toluene-d8					97.8	99.4		80.0-120				
(S) Dibromofluoromethane					96.1	96.9		74.0-131				
(S) a,a,a-Trifluorotoluene					96.0	97.6		80.0-120				
(S) 4-Bromofluorobenzene					102	98.7		64.0-132				

Method Blank (MB)

(MB) R3202017-3 03/08/17 16:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3202017-3 03/08/17 16:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
1,2,3-Trimethylbenzene	U		0.321	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	98.2			80.0-120
(S) Dibromofluoromethane	108			76.0-123
(S) 4-Bromofluorobenzene	94.6			80.0-120

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

(LCS) R3202017-1 03/08/17 15:10 • (LCSD) R3202017-2 03/08/17 15:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	173	182	138	146	10.0-160			5.53	23
Acrolein	125	269	278	215	223	10.0-160	J4	J4	3.26	20
Benzene	25.0	26.8	27.4	107	110	69.0-123			2.21	20
Acrylonitrile	125	127	133	101	107	60.0-142			5.18	20

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

(LCS) R3202017-1 03/08/17 15:10 • (LCSD) R3202017-2 03/08/17 15:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	25.0	25.5	25.5	102	102	79.0-120			0.230	20
Bromodichloromethane	25.0	24.6	24.7	98.2	98.6	76.0-120			0.400	20
Bromoform	25.0	25.9	26.0	104	104	67.0-132			0.130	20
Bromomethane	25.0	30.8	30.5	123	122	18.0-160			1.02	20
n-Butylbenzene	25.0	27.1	28.2	109	113	72.0-126			3.82	20
sec-Butylbenzene	25.0	26.6	26.5	106	106	74.0-121			0.370	20
tert-Butylbenzene	25.0	27.0	26.9	108	107	75.0-122			0.610	20
Carbon tetrachloride	25.0	26.7	27.3	107	109	63.0-122			2.01	20
Chlorobenzene	25.0	28.3	28.4	113	114	79.0-121			0.250	20
Chlorodibromomethane	25.0	27.9	27.5	112	110	75.0-125			1.28	20
Chloroethane	25.0	33.3	33.6	133	135	47.0-152			0.970	20
Chloroform	25.0	26.2	26.5	105	106	72.0-121			1.26	20
Chloromethane	25.0	23.2	24.4	92.8	97.8	48.0-139			5.24	20
2-Chlorotoluene	25.0	27.4	27.0	110	108	74.0-122			1.56	20
4-Chlorotoluene	25.0	27.1	26.9	108	108	79.0-120			0.620	20
1,2-Dibromo-3-Chloropropane	25.0	25.4	27.2	102	109	64.0-127			6.87	20
1,2-Dibromoethane	25.0	27.2	27.1	109	108	77.0-123			0.340	20
Dibromomethane	25.0	26.1	26.2	104	105	78.0-120			0.220	20
1,2-Dichlorobenzene	25.0	27.6	28.3	110	113	80.0-120			2.76	20
1,3-Dichlorobenzene	25.0	26.5	26.3	106	105	72.0-123			0.610	20
1,4-Dichlorobenzene	25.0	27.1	27.8	108	111	77.0-120			2.52	20
Dichlorodifluoromethane	25.0	34.3	34.5	137	138	49.0-155			0.780	20
1,1-Dichloroethane	25.0	26.3	26.5	105	106	70.0-126			0.640	20
1,2-Dichloroethane	25.0	27.5	27.9	110	112	67.0-126			1.48	20
1,1-Dichloroethene	25.0	26.9	27.1	108	109	64.0-129			0.770	20
cis-1,2-Dichloroethene	25.0	26.1	26.5	104	106	73.0-120			1.64	20
trans-1,2-Dichloroethene	25.0	27.1	27.7	109	111	71.0-121			1.87	20
1,2-Dichloropropane	25.0	25.8	25.5	103	102	75.0-125			1.02	20
1,1-Dichloropropene	25.0	28.2	28.7	113	115	71.0-129			1.51	20
1,3-Dichloropropane	25.0	27.4	27.5	110	110	80.0-121			0.0300	20
cis-1,3-Dichloropropene	25.0	27.8	27.6	111	111	79.0-123			0.620	20
trans-1,3-Dichloropropene	25.0	25.8	26.3	103	105	74.0-127			2.02	20
2,2-Dichloropropane	25.0	25.6	25.9	103	103	60.0-125			0.850	20
Di-isopropyl ether	25.0	23.8	24.5	95.3	98.0	59.0-133			2.81	20
Ethylbenzene	25.0	28.0	27.5	112	110	77.0-120			1.64	20
Hexachloro-1,3-butadiene	25.0	27.3	27.7	109	111	64.0-131			1.46	20
Isopropylbenzene	25.0	27.5	27.2	110	109	75.0-120			1.11	20
p-Isopropyltoluene	25.0	27.8	27.8	111	111	74.0-126			0.0100	20
2-Butanone (MEK)	125	150	155	120	124	37.0-158			3.55	20
Methyl tert-butyl ether	25.0	23.8	24.5	95.3	98.1	64.0-123			2.86	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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

(LCS) R3202017-1 03/08/17 15:10 • (LCSD) R3202017-2 03/08/17 15:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methylene Chloride	25.0	24.2	24.9	97.0	99.8	66.0-121			2.84	20
4-Methyl-2-pentanone (MIBK)	125	136	140	109	112	59.0-143			2.32	20
Naphthalene	25.0	26.2	27.6	105	110	62.0-128			5.15	20
n-Propylbenzene	25.0	27.7	27.4	111	109	79.0-120			1.30	20
Styrene	25.0	28.4	28.3	114	113	78.0-124			0.550	20
1,1,1,2-Tetrachloroethane	25.0	25.8	25.3	103	101	75.0-122			2.00	20
1,1,2,2-Tetrachloroethane	25.0	24.4	24.1	97.8	96.3	71.0-122			1.49	20
Tetrachloroethene	25.0	27.5	27.3	110	109	70.0-127			0.770	20
Toluene	25.0	26.0	26.1	104	104	77.0-120			0.260	20
1,1,2-Trichlorotrifluoroethane	25.0	30.8	31.3	123	125	61.0-136			1.43	20
1,2,3-Trichlorobenzene	25.0	25.9	26.5	104	106	61.0-133			2.10	20
1,2,4-Trichlorobenzene	25.0	26.0	26.9	104	108	69.0-129			3.51	20
1,1,1-Trichloroethane	25.0	27.5	27.8	110	111	68.0-122			1.12	20
1,1,2-Trichloroethane	25.0	26.4	26.2	106	105	78.0-120			0.730	20
Trichloroethene	25.0	27.4	27.7	110	111	78.0-120			0.850	20
Trichlorofluoromethane	25.0	33.5	33.6	134	135	56.0-137			0.590	20
1,2,3-Trichloropropane	25.0	26.0	26.1	104	105	72.0-124			0.490	20
1,2,3-Trimethylbenzene	25.0	27.6	27.9	110	112	75.0-120			1.43	20
1,2,4-Trimethylbenzene	25.0	27.4	27.4	110	110	75.0-120			0.140	20
1,3,5-Trimethylbenzene	25.0	26.6	26.5	107	106	75.0-120			0.390	20
Xylenes, Total	75.0	82.3	81.3	110	108	77.0-120			1.22	20
Vinyl chloride	25.0	31.6	31.3	126	125	64.0-133			1.05	20
(S) Toluene-d8				102	102	80.0-120				
(S) Dibromofluoromethane				104	106	76.0-123				
(S) 4-Bromofluorobenzene				98.7	97.2	80.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3202100-1 03/08/17 00:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		83.3	250
Residual Range Organics (RRO)	U		167	500
(S) o-Terphenyl	124			52.0-156

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

(LCS) R3202100-2 03/08/17 00:50 • (LCSD) R3202100-3 03/08/17 01:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	1040	1080	139	144	50.0-150			3.11	20
Residual Range Organics (RRO)	750	808	859	108	115	50.0-150			6.16	20
(S) o-Terphenyl				125	125	52.0-156				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3202018-1 03/08/17 19:01

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	80.3			18.0-148

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

(LCS) R3202018-2 03/08/17 19:14 • (LCSD) R3202018-3 03/08/17 19:27

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 %
Diesel Range Organics (DRO)	30.0	18.7	20.6	62.2	68.8	50.0-150			10.1	20
Residual Range Organics (RRO)	30.0	18.3	19.4	61.1	64.6	50.0-150			5.50	20
(S) o-Terphenyl				85.0	97.9	18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3202328-1 03/09/17 13:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.00350	0.0170
PCB 1221	U		0.00537	0.0170
PCB 1232	U		0.00417	0.0170
PCB 1242	U		0.00318	0.0170
PCB 1248	U		0.00315	0.0170
PCB 1254	U		0.00472	0.0170
PCB 1260	U		0.00494	0.0170
(S) Decachlorobiphenyl	72.8			10.0-148
(S) Tetrachloro-m-xylene	77.7			21.0-146

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

(LCS) R3202328-2 03/09/17 13:23 • (LCSD) R3202328-3 03/09/17 13:36

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 %
PCB 1260	0.167	0.154	0.104	92.1	62.7	37.0-145		J3	38.1	37
PCB 1016	0.167	0.146	0.0997	87.8	59.8	36.0-141		J3	37.9	35
(S) Decachlorobiphenyl				91.0	80.7	10.0-148				
(S) Tetrachloro-m-xylene				93.7	82.6	21.0-146				

L893780-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893780-06 03/09/17 15:12 • (MS) R3202328-4 03/09/17 15:25 • (MSD) R3202328-5 03/09/17 15:39

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.218	U	0.190	0.195	87.4	89.7	1	10.0-160			2.60	31
PCB 1016	0.218	U	0.201	0.201	92.1	92.1	1	17.0-160			0.000	30
(S) Decachlorobiphenyl					99.0	99.8		10.0-148				
(S) Tetrachloro-m-xylene					102	98.3		21.0-146				

Method Blank (MB)

(MB) R3201844-3 03/08/17 04:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0140	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.0120	0.0500
Benzo(a)anthracene	0.00642	J	0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Fluoranthene	U		0.0157	0.0500
Fluorene	U		0.00850	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0213	J	0.0198	0.250
Phenanthrene	U		0.00820	0.0500
Pyrene	U		0.0117	0.0500
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
2-Chloronaphthalene	U		0.00647	0.250
(S) Nitrobenzene-d5	147			31.0-160
(S) 2-Fluorobiphenyl	97.9			48.0-148
(S) p-Terphenyl-d14	90.4			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3201844-1 03/08/17 03:30 • (LCSD) R3201844-2 03/08/17 03:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.77	1.89	88.7	94.6	64.0-142			6.41	20
Acenaphthene	2.00	1.97	1.89	98.5	94.5	66.0-132			4.20	20
Acenaphthylene	2.00	1.90	1.81	94.9	90.7	65.0-132			4.47	20
Benzo(a)anthracene	2.00	2.07	2.01	104	101	59.0-134			2.83	20
Benzo(a)pyrene	2.00	2.08	2.08	104	104	61.0-145			0.0100	20
Benzo(b)fluoranthene	2.00	2.18	1.93	109	96.4	57.0-136			12.4	20
Benzo(g,h,i)perylene	2.00	1.92	1.82	95.9	91.1	54.0-140			5.20	20
Benzo(k)fluoranthene	2.00	2.14	2.00	107	100	57.0-141			6.35	20
Chrysene	2.00	1.99	1.93	99.7	96.7	63.0-140			3.04	20
Dibenz(a,h)anthracene	2.00	1.96	1.81	98.1	90.6	49.0-141			8.03	20
Fluoranthene	2.00	2.13	2.28	107	114	65.0-143			6.57	20

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

(LCS) R3201844-1 03/08/17 03:30 • (LCSD) R3201844-2 03/08/17 03:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	2.06	2.02	103	101	64.0-129			1.91	20
Indeno(1,2,3-cd)pyrene	2.00	1.97	1.85	98.4	92.5	53.0-141			6.16	20
Naphthalene	2.00	1.92	1.82	96.0	90.8	68.0-129			5.58	20
Phenanthrene	2.00	1.91	1.88	95.3	93.9	62.0-132			1.40	20
Pyrene	2.00	1.74	1.84	86.8	92.0	58.0-156			5.85	20
1-Methylnaphthalene	2.00	2.21	2.07	110	103	68.0-137			6.55	20
2-Methylnaphthalene	2.00	2.03	1.91	102	95.7	68.0-134			6.08	20
2-Chloronaphthalene	2.00	1.85	1.82	92.7	90.8	65.0-129			2.11	20
(S) Nitrobenzene-d5				151	128	31.0-160				
(S) 2-Fluorobiphenyl				99.1	95.1	48.0-148				
(S) p-Terphenyl-d14				93.4	92.3	37.0-146				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3202570-3 03/10/17 02:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
1-Methylnaphthalene	U		0.00200	0.0200
2-Methylnaphthalene	U		0.00200	0.0200
2-Chloronaphthalene	U		0.00200	0.0200
(S) p-Terphenyl-d14	74.2			23.0-120
(S) Nitrobenzene-d5	59.5			14.0-149
(S) 2-Fluorobiphenyl	66.7			34.0-125

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3202570-1 03/10/17 02:07 • (LCSD) R3202570-2 03/10/17 02:29

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 %
Anthracene	0.0800	0.0593	0.0617	74.1	77.1	50.0-125			4.02	20
Acenaphthene	0.0800	0.0628	0.0653	78.5	81.6	52.0-120			3.95	20
Acenaphthylene	0.0800	0.0627	0.0648	78.4	81.0	51.0-120			3.33	20
Benzo(a)anthracene	0.0800	0.0554	0.0566	69.2	70.8	46.0-121			2.24	20
Benzo(a)pyrene	0.0800	0.0511	0.0518	63.8	64.8	42.0-121			1.51	20
Benzo(b)fluoranthene	0.0800	0.0579	0.0579	72.3	72.4	42.0-123			0.140	20
Benzo(g,h,i)perylene	0.0800	0.0554	0.0564	69.2	70.4	43.0-128			1.78	20
Benzo(k)fluoranthene	0.0800	0.0581	0.0614	72.7	76.8	45.0-128			5.52	20
Chrysene	0.0800	0.0586	0.0618	73.2	77.2	48.0-127			5.36	20
Dibenz(a,h)anthracene	0.0800	0.0514	0.0515	64.2	64.4	43.0-132			0.240	20
Fluoranthene	0.0800	0.0694	0.0705	86.7	88.1	49.0-129			1.55	20

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

(LCS) R3202570-1 03/10/17 02:07 • (LCSD) R3202570-2 03/10/17 02:29

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 %
Fluorene	0.0800	0.0577	0.0598	72.1	74.8	50.0-120			3.69	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0536	0.0552	67.0	69.0	44.0-131			2.93	20
Naphthalene	0.0800	0.0574	0.0604	71.8	75.4	50.0-120			5.00	20
Phenanthrene	0.0800	0.0620	0.0640	77.5	80.0	48.0-120			3.16	20
Pyrene	0.0800	0.0647	0.0678	80.9	84.7	48.0-135			4.63	20
1-Methylnaphthalene	0.0800	0.0547	0.0576	68.3	71.9	52.0-122			5.14	20
2-Methylnaphthalene	0.0800	0.0515	0.0539	64.4	67.3	52.0-120			4.47	20
2-Chloronaphthalene	0.0800	0.0570	0.0581	71.2	72.6	50.0-120			1.97	20
(S) p-Terphenyl-d14				68.4	71.9	23.0-120				
(S) Nitrobenzene-d5				62.7	65.8	14.0-149				
(S) 2-Fluorobiphenyl				66.2	70.5	34.0-125				

L893941-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893941-02 03/14/17 13:23 • (MS) R3203241-1 03/14/17 13:45 • (MSD) R3203241-2 03/14/17 14:06

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0893	U	0.0553	0.0535	62.0	59.9	1	20.0-136			3.33	24
Acenaphthene	0.0893	U	0.0624	0.0617	69.9	69.1	1	29.0-124			1.09	20
Acenaphthylene	0.0893	U	0.0617	0.0595	69.1	66.6	1	35.0-120			3.62	20
Benzo(a)anthracene	0.0893	U	0.0502	0.0447	56.2	50.0	1	13.0-132			11.7	27
Benzo(a)pyrene	0.0893	U	0.0467	0.0303	52.3	33.9	1	14.0-138		J3	42.6	27
Benzo(b)fluoranthene	0.0893	U	0.0512	0.0408	57.3	45.7	1	10.0-129			22.6	31
Benzo(g,h,i)perylene	0.0893	U	0.0411	0.0289	46.1	32.3	1	10.0-133		J3	35.0	30
Benzo(k)fluoranthene	0.0893	U	0.0573	0.0452	64.2	50.6	1	15.0-131			23.7	27
Chrysene	0.0893	U	0.0697	0.0533	78.0	59.7	1	15.0-137		J3	26.6	25
Dibenz(a,h)anthracene	0.0893	U	0.0475	0.0326	53.1	36.5	1	15.0-132		J3	37.0	27
Fluoranthene	0.0893	U	0.0504	0.0467	56.4	52.3	1	13.0-139			7.59	28
Fluorene	0.0893	U	0.0590	0.0564	66.0	63.1	1	27.0-122			4.49	22
Indeno(1,2,3-cd)pyrene	0.0893	U	0.0427	0.0282	47.8	31.6	1	11.0-133		J3	40.8	29
Naphthalene	0.0893	0.00652	0.0612	0.0661	61.3	66.7	1	18.0-136			7.61	21
Phenanthrene	0.0893	U	0.0529	0.0509	59.2	57.0	1	15.0-133			3.92	25
Pyrene	0.0893	U	0.0628	0.0460	70.3	51.5	1	11.0-146		J3	30.8	29
1-Methylnaphthalene	0.0893	U	0.0659	0.0635	73.8	71.1	1	24.0-137			3.72	22
2-Methylnaphthalene	0.0893	U	0.0632	0.0608	70.8	68.0	1	23.0-136			4.00	22
2-Chloronaphthalene	0.0893	U	0.0663	0.0659	74.3	73.8	1	36.0-120			0.680	20
(S) p-Terphenyl-d14					91.8	72.9		23.0-120				
(S) Nitrobenzene-d5					82.9	86.7		14.0-149				
(S) 2-Fluorobiphenyl					88.7	76.0		34.0-125				

1

Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
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.
(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.
Rec.	Recovery.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

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

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

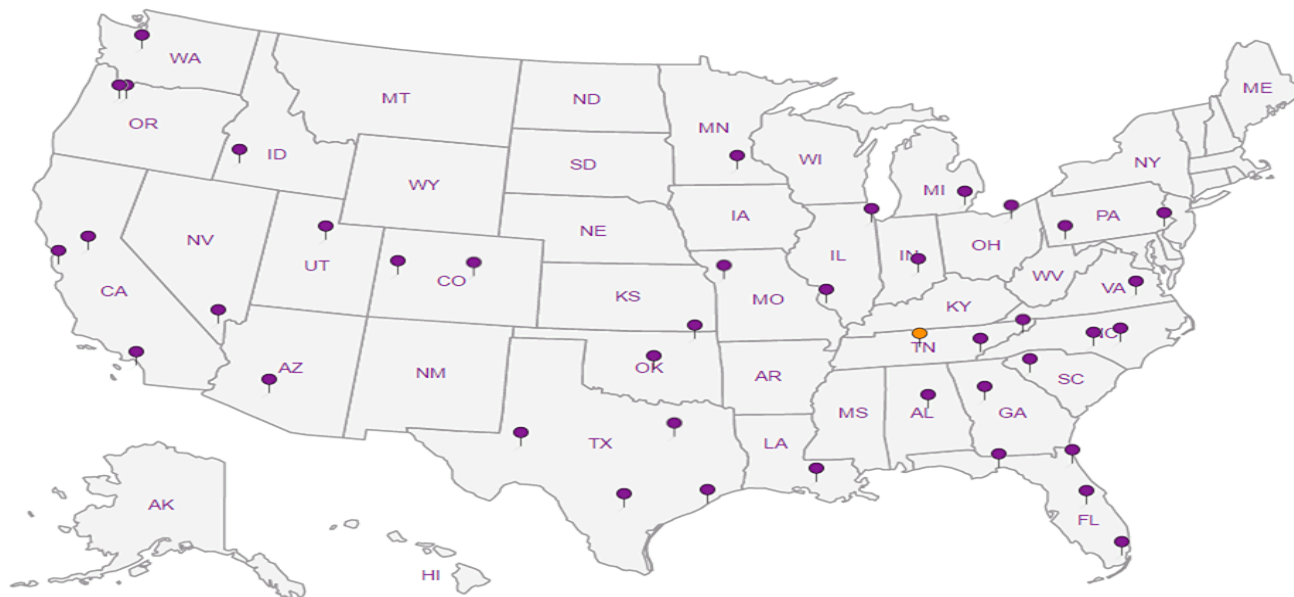
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Kennedy Jenks - BNSF Region 1
 32001 32nd Ave South, Suite 100
 Federal Way, WA 98001

Billing Information:
 Scott MacDonald
 2454 Occidental Ave S, Ste 1A
 Seattle, WA 98134
 Accounts Payable
 32001 32nd Ave S, Suite 100
 Federal Way, WA 98001

Report to:
 John Jindra
 Julia Schwarz,
 Nathan Moxley

Email To:
 johnjindra@kennedyjenks.com

Project:
 Description: ~~BNSF - Occidental/Lander St~~
 Midas Fountleroy

City/State
 Collected: Seattle, WA

Phone: 253-835-6400

Client Project #

Lab Project #

Fax:

TT0098-N01

BNSF1KEN-O&L

1696059-00

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Date Results Needed

Immediately
 Packed on Ice N Y X

Same Day 200%
 Next Day 100%
 Two Day 50%
 Three Day 25%

Email? No X Yes
 FAX? X No Yes

No.
 of
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		TPH-G	TPH-D	Die Dissolved Fe	Sulfate	VOCs	PCRA 8 Metals	PAHs	PCBs
B-1 (10.0-11.0)	Grab	GWSS	10.0-11.0	3/1/17	1015	5	X	X	X	X	X	X		
B-1 (19.0-20.0)	Grab	GWSS	19.0-20.0		1020	5	X	X	X	X	X	X		
B-1	Grab	GW			1035	9	X	X	X	X	X	X		
B-2 (13.0-14.0)	Grab	GWSS	13.0-14.0		1230	5	X	X	X	X	X	X		
B-2 (19.0-20.0)	Grab	GWSS	19.0-20.0		1240	5	X	X	X	X	X	X	X	
B-3 (6.0-7.0)	Grab	GWSS	6.0-7.0		1305	7	X	X	X	X	X	X		
B-3 (14.0-15.0)	Grab	GWSS	14.0-15.0		1315	5	X	X	X	X	X	X	X	
B-4 (6.0-7.0)	Grab	GWSS	6.0-7.0		1345	7	X	X	X	X	X	X	X	
B-4 (11.0-12.0)	Grab	GWSS	11.0-12.0		1350	5	X	X	X	X	X	X		
B-5 (12.0-13.0)	Grab	GWSS	12.0-13.0	✓	1430	5	X	X	X	X	X	X		

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other
 10 GW Samples for metals need to be filtered prior to analysis
 2. No silica gel cleanup for diesel analysis

Relinquished by: (Signature) Date: 3/3/17 Time: 1130
 Relinquished by: (Signature) Date: Time:
 Relinquished by: (Signature) Date: Time:

Received by: (Signature)

Received by: (Signature)

Received for lab by: (Signature)

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via: ☐ UPS
☐ FedEx ☐ Courier ☐

Temp: °C Bottles Received:
 2.7 86 + TB

Date: 3-4-17 Time: 900

Hold #
 Condition: (lab use only)
 mws0
 COC Seal Intact: Y N NA
 pH Checked: NCF:

Chain of Custody Page 1 of 2

ESC
 L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

QR Code

L# 893941

F005

Account: BNSF1KEN

Template:

Prelogin:

TSR:

Cooler:

Shipped Via:

Rem./Contaminant Sample # (lab only)

	61
	02
	03
	04
	05
	06
	07
	08
	09
	10

Company Name/Address:

Kennedy Jenks - ~~BNSF~~ Region 132001 32nd Ave South, Suite 100
Federal Way, WA 98001

Billing Information:

Scott MacDonald
2454 Occidental Ave S, Ste 1A
Seattle, WA 98134
Accounts Payable
32001 32nd Ave S, Suite 100
Federal Way, WA 98001

Report to:

John Jindra Julia Schwarz,
Nathan Moxley

Email To:

johnjindra@kennedyjenks.com

Project

Description: ~~BNSF Occidental/Lander St~~

Phone: 253-835-6400

Fax:

Client Project #

TT0098-N01

1696059-00

City/State
Collected: Seattle, WA

Lab Project #

BNSF1KEN-0&L

P.O. #

Collected by (print):

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day200%
Next Day100%
Two Day50%
Three Day25%

Date Results Needed

Email? ☐ No ☒ YesFAX? ☒ No ☐ YesNo.
of
CntrsImmediately
Packed on Ice N ☐ Y ☒

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH-G	TPH-D	BTEX	Analysis / Container / Preservative	SCRA 8 Metals	PAHs	PCBs
B-5 (19.0-20.0)	Grab	GW SS	19.0-20.0	3/1/17	1440	5	X	X	X	TPH-G			
B-5	Grab	GW			1450	9	X	X	X	TPH-D			
Ap-1-50.1	Grab	GW SS				5	X	X	X	Disolved Fe-1-500ml plastic non-preserved			
Ap-1-GW	Grab	GW				9	X	X	X	Sulfate-1-125ml plastic non-preserved			
	Grab	GW								MSK175-2-40ml vials w/HCL			
	Grab	GW											
	Grab	GW											
	Grab	GW											
	Grab	GW											
	Grab	GW											
	Grab	GW											
	Grab	GW											
	Grab	GW											
	Grab	GW											

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks:

Relinquished by: (Signature)

Date:

3/3/17

Time:

1130

Received by: (Signature)

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: ☐ UPS☐ FedEx ☐ Courier ☐ _____

Temp: _____ °C Bottles Received:

2.7 865TB

Date: _____ Time: _____

3-4-17 900

Hold #

Condition: (lab use only)

COC Seal Intact: ☐ Y ☒ N ☐ NA

pH Checked:

NCF:

Chain of Custody

Page 2 of 2

ESC
L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 843941

Table #

Acctnum: BNSF1KEN

Template:

Prelogin:

TSR:

Cooler:

Shipped Via:

Rem./Contaminant

Sample # (lab only)

11

12

13

17

ESC LAB SCIENCES Cooler Receipt Form

Client: <u>Ken Sarawat</u>		SDG# <u>893941</u>	
Cooler Received/Opened On: <u>3/ 4 /17</u>		Temperature: <u>2.7</u>	
Received By: <u>Nadiar Yakob</u>			
Signature: <u>[Signature]</u>			
Receipt Check List			
	NP	Yes	No
COC Seal Present / Intact?	/		
COC Signed / Accurate?		/	
Bottles arrive intact?		/	
Correct bottles used?		/	
Sufficient volume sent?		/	
If Applicable		/	
VOA Zero headspace?		/	
Preservation Correct / Checked?			

Kennedy/Jenks Consultants

Sample Delivery Group: L893941
Samples Received: 03/04/2017
Project Number: 1696059-00
Description: Midas Fauntleroy

Report To: Julia Schwarz, Nathan Moxley
116 Lupfer Avenue, Suite B
Whitefish, MT 59937

Entire Report Reviewed By:



Mark W. Beasley
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



B-1 L893941-03 GW

Collected by
Nathan Moxley

Collected date/time
03/01/17 10:35

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG958806	1	03/08/17 10:09	03/08/17 18:13	TRB
Metals (ICP) by Method 6010C	WG958726	1	03/07/17 18:13	03/07/17 20:12	ST
Volatile Organic Compounds (GC) by Method NWTPHGX	WG957976	1	03/09/17 17:37	03/09/17 17:37	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	1	03/08/17 19:46	03/08/17 19:46	ACG
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958334	1	03/06/17 23:05	03/10/17 00:41	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG958443	1	03/07/17 11:20	03/08/17 12:14	FMB

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

B-5 L893941-12 GW

Collected by
Nathan Moxley

Collected date/time
03/01/17 14:50

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG958806	1	03/08/17 10:09	03/08/17 19:00	TRB
Metals (ICP) by Method 6010C	WG958726	1	03/07/17 18:13	03/07/17 20:25	ST
Volatile Organic Compounds (GC) by Method NWTPHGX	WG957976	1	03/09/17 17:59	03/09/17 17:59	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	1	03/08/17 20:09	03/08/17 20:09	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	10	03/10/17 05:58	03/10/17 05:58	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958334	2	03/06/17 23:05	03/08/17 20:12	TRF
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG958443	1	03/07/17 11:20	03/08/17 12:37	FMB

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

DUP-1-GW L893941-14 GW

Collected by
Nathan Moxley

Collected date/time
03/01/17 00:00

Received date/time
03/04/17 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG958806	1	03/08/17 10:09	03/08/17 19:03	TRB
Metals (ICP) by Method 6010C	WG958726	1	03/07/17 18:13	03/07/17 20:28	ST
Volatile Organic Compounds (GC) by Method NWTPHGX	WG957976	1	03/09/17 18:21	03/09/17 18:21	ACE
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	1	03/08/17 20:32	03/08/17 20:32	ACG
Volatile Organic Compounds (GC/MS) by Method 8260C	WG959106	10	03/10/17 06:14	03/10/17 06:14	JAH
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG958334	2	03/06/17 23:05	03/08/17 20:28	TRF
Semi Volatile Organic Compounds (GC/MS) by Method 8270D-SIM	WG958443	1	03/07/17 11:20	03/08/17 13:00	FMB



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Mark W. Beasley
Technical Service Representative

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0490	0.200	1	03/08/2017 18:13	WG958806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic,Dissolved	U		6.50	10.0	1	03/07/2017 20:12	WG958726
Barium,Dissolved	39.9		1.70	5.00	1	03/07/2017 20:12	WG958726
Cadmium,Dissolved	U		0.700	2.00	1	03/07/2017 20:12	WG958726
Chromium,Dissolved	U		1.40	10.0	1	03/07/2017 20:12	WG958726
Lead,Dissolved	U		1.90	5.00	1	03/07/2017 20:12	WG958726
Selenium,Dissolved	U		7.40	10.0	1	03/07/2017 20:12	WG958726
Silver,Dissolved	U		2.80	5.00	1	03/07/2017 20:12	WG958726

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	2440		31.6	100	1	03/09/2017 17:37	WG957976
(S) a,a,a-Trifluorotoluene(FID) 106				77.0-122		03/09/2017 17:37	WG957976

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	03/08/2017 19:46	WG959106
Acrolein	U	J4	8.87	50.0	1	03/08/2017 19:46	WG959106
Acrylonitrile	U		1.87	10.0	1	03/08/2017 19:46	WG959106
Benzene	27.3		0.331	1.00	1	03/08/2017 19:46	WG959106
Bromobenzene	U		0.352	1.00	1	03/08/2017 19:46	WG959106
Bromodichloromethane	U		0.380	1.00	1	03/08/2017 19:46	WG959106
Bromoform	U		0.469	1.00	1	03/08/2017 19:46	WG959106
Bromomethane	U		0.866	5.00	1	03/08/2017 19:46	WG959106
n-Butylbenzene	6.25		0.361	1.00	1	03/08/2017 19:46	WG959106
sec-Butylbenzene	7.74		0.365	1.00	1	03/08/2017 19:46	WG959106
tert-Butylbenzene	U		0.399	1.00	1	03/08/2017 19:46	WG959106
Carbon tetrachloride	U		0.379	1.00	1	03/08/2017 19:46	WG959106
Chlorobenzene	U		0.348	1.00	1	03/08/2017 19:46	WG959106
Chlorodibromomethane	U		0.327	1.00	1	03/08/2017 19:46	WG959106
Chloroethane	U		0.453	5.00	1	03/08/2017 19:46	WG959106
Chloroform	7.06		0.324	5.00	1	03/08/2017 19:46	WG959106
Chloromethane	U		0.276	2.50	1	03/08/2017 19:46	WG959106
2-Chlorotoluene	U		0.375	1.00	1	03/08/2017 19:46	WG959106
4-Chlorotoluene	U		0.351	1.00	1	03/08/2017 19:46	WG959106
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/08/2017 19:46	WG959106
1,2-Dibromoethane	U		0.381	1.00	1	03/08/2017 19:46	WG959106
Dibromomethane	U		0.346	1.00	1	03/08/2017 19:46	WG959106
1,2-Dichlorobenzene	U		0.349	1.00	1	03/08/2017 19:46	WG959106
1,3-Dichlorobenzene	U		0.220	1.00	1	03/08/2017 19:46	WG959106
1,4-Dichlorobenzene	U		0.274	1.00	1	03/08/2017 19:46	WG959106
Dichlorodifluoromethane	U		0.551	5.00	1	03/08/2017 19:46	WG959106
1,1-Dichloroethane	U		0.259	1.00	1	03/08/2017 19:46	WG959106
1,2-Dichloroethane	U		0.361	1.00	1	03/08/2017 19:46	WG959106
1,1-Dichloroethene	U		0.398	1.00	1	03/08/2017 19:46	WG959106
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/08/2017 19:46	WG959106
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/08/2017 19:46	WG959106
1,2-Dichloropropane	U		0.306	1.00	1	03/08/2017 19:46	WG959106



Collected date/time: 03/01/17 10:35

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.352	1.00	1	03/08/2017 19:46	WG959106
1,3-Dichloropropane	U		0.366	1.00	1	03/08/2017 19:46	WG959106
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/08/2017 19:46	WG959106
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/08/2017 19:46	WG959106
2,2-Dichloropropane	U		0.321	1.00	1	03/08/2017 19:46	WG959106
Di-isopropyl ether	U		0.320	1.00	1	03/08/2017 19:46	WG959106
Ethylbenzene	109		0.384	1.00	1	03/08/2017 19:46	WG959106
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/08/2017 19:46	WG959106
Isopropylbenzene	54.8		0.326	1.00	1	03/08/2017 19:46	WG959106
p-Isopropyltoluene	1.71		0.350	1.00	1	03/08/2017 19:46	WG959106
2-Butanone (MEK)	U		3.93	10.0	1	03/08/2017 19:46	WG959106
Methylene Chloride	U		1.00	5.00	1	03/08/2017 19:46	WG959106
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	03/08/2017 19:46	WG959106
Methyl tert-butyl ether	U		0.367	1.00	1	03/08/2017 19:46	WG959106
Naphthalene	5.46		1.00	5.00	1	03/08/2017 19:46	WG959106
n-Propylbenzene	155		0.349	1.00	1	03/08/2017 19:46	WG959106
Styrene	U		0.307	1.00	1	03/08/2017 19:46	WG959106
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/08/2017 19:46	WG959106
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/08/2017 19:46	WG959106
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/08/2017 19:46	WG959106
Tetrachloroethene	U		0.372	1.00	1	03/08/2017 19:46	WG959106
Toluene	4.09		0.412	1.00	1	03/08/2017 19:46	WG959106
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/08/2017 19:46	WG959106
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/08/2017 19:46	WG959106
1,1,1-Trichloroethane	U		0.319	1.00	1	03/08/2017 19:46	WG959106
1,1,2-Trichloroethane	U		0.383	1.00	1	03/08/2017 19:46	WG959106
Trichloroethene	U		0.398	1.00	1	03/08/2017 19:46	WG959106
Trichlorofluoromethane	U		1.20	5.00	1	03/08/2017 19:46	WG959106
1,2,3-Trichloropropane	U		0.807	2.50	1	03/08/2017 19:46	WG959106
1,2,4-Trimethylbenzene	1.65		0.373	1.00	1	03/08/2017 19:46	WG959106
1,2,3-Trimethylbenzene	12.8		0.321	1.00	1	03/08/2017 19:46	WG959106
1,3,5-Trimethylbenzene	15.3		0.387	1.00	1	03/08/2017 19:46	WG959106
Vinyl chloride	U		0.259	1.00	1	03/08/2017 19:46	WG959106
Xylenes, Total	71.5		1.06	3.00	1	03/08/2017 19:46	WG959106
(S) Toluene-d8	107			80.0-120		03/08/2017 19:46	WG959106
(S) Dibromofluoromethane	107			76.0-123		03/08/2017 19:46	WG959106
(S) 4-Bromofluorobenzene	89.0			80.0-120		03/08/2017 19:46	WG959106

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	599		82.5	250	1	03/10/2017 00:41	WG958334
Residual Range Organics (RRO)	U		165	500	1	03/10/2017 00:41	WG958334
(S) o-Terphenyl	121			52.0-156		03/10/2017 00:41	WG958334

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	03/08/2017 12:14	WG958443
Acenaphthene	0.0719		0.0100	0.0500	1	03/08/2017 12:14	WG958443
Acenaphthylene	U		0.0120	0.0500	1	03/08/2017 12:14	WG958443
Benzo(a)anthracene	U		0.00410	0.0500	1	03/08/2017 12:14	WG958443
Benzo(a)pyrene	U		0.0116	0.0500	1	03/08/2017 12:14	WG958443
Benzo(b)fluoranthene	U		0.00212	0.0500	1	03/08/2017 12:14	WG958443
Benzo(g,h,i)perylene	U		0.00227	0.0500	1	03/08/2017 12:14	WG958443



Collected date/time: 03/01/17 10:35

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	U		0.0136	0.0500	1	03/08/2017 12:14	WG958443
Chrysene	U		0.0108	0.0500	1	03/08/2017 12:14	WG958443
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	03/08/2017 12:14	WG958443
Fluoranthene	U		0.0157	0.0500	1	03/08/2017 12:14	WG958443
Fluorene	0.108		0.00850	0.0500	1	03/08/2017 12:14	WG958443
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	03/08/2017 12:14	WG958443
Naphthalene	5.24		0.0198	0.250	1	03/08/2017 12:14	WG958443
Phenanthrene	0.0229	J	0.00820	0.0500	1	03/08/2017 12:14	WG958443
Pyrene	U		0.0117	0.0500	1	03/08/2017 12:14	WG958443
1-Methylnaphthalene	32.0		0.00821	0.250	1	03/08/2017 12:14	WG958443
2-Methylnaphthalene	46.7		0.00902	0.250	1	03/08/2017 12:14	WG958443
2-Chloronaphthalene	U		0.00647	0.250	1	03/08/2017 12:14	WG958443
(S) Nitrobenzene-d5	144			31.0-160		03/08/2017 12:14	WG958443
(S) 2-Fluorobiphenyl	96.8			48.0-148		03/08/2017 12:14	WG958443
(S) p-Terphenyl-d14	81.0			37.0-146		03/08/2017 12:14	WG958443

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury,Dissolved	U		0.0490	0.200	1	03/08/2017 19:00	WG958806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Metals (ICP) by Method 6010C

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic,Dissolved	U		6.50	10.0	1	03/07/2017 20:25	WG958726
Barium,Dissolved	42.1		1.70	5.00	1	03/07/2017 20:25	WG958726
Cadmium,Dissolved	U		0.700	2.00	1	03/07/2017 20:25	WG958726
Chromium,Dissolved	U		1.40	10.0	1	03/07/2017 20:25	WG958726
Lead,Dissolved	U		1.90	5.00	1	03/07/2017 20:25	WG958726
Selenium,Dissolved	U		7.40	10.0	1	03/07/2017 20:25	WG958726
Silver,Dissolved	U		2.80	5.00	1	03/07/2017 20:25	WG958726

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	6120		31.6	100	1	03/09/2017 17:59	WG957976
(S) a,a,a-Trifluorotoluene(FID) 126		J1		77.0-122		03/09/2017 17:59	WG957976

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	U		10.0	50.0	1	03/08/2017 20:09	WG959106
Acrolein	U	J4	8.87	50.0	1	03/08/2017 20:09	WG959106
Acrylonitrile	U		1.87	10.0	1	03/08/2017 20:09	WG959106
Benzene	5.30		0.331	1.00	1	03/08/2017 20:09	WG959106
Bromobenzene	U		0.352	1.00	1	03/08/2017 20:09	WG959106
Bromodichloromethane	U		0.380	1.00	1	03/08/2017 20:09	WG959106
Bromoform	U		0.469	1.00	1	03/08/2017 20:09	WG959106
Bromomethane	U		0.866	5.00	1	03/08/2017 20:09	WG959106
n-Butylbenzene	14.4		0.361	1.00	1	03/08/2017 20:09	WG959106
sec-Butylbenzene	17.7		0.365	1.00	1	03/08/2017 20:09	WG959106
tert-Butylbenzene	U		0.399	1.00	1	03/08/2017 20:09	WG959106
Carbon tetrachloride	U		0.379	1.00	1	03/08/2017 20:09	WG959106
Chlorobenzene	U		0.348	1.00	1	03/08/2017 20:09	WG959106
Chlorodibromomethane	U		0.327	1.00	1	03/08/2017 20:09	WG959106
Chloroethane	U		0.453	5.00	1	03/08/2017 20:09	WG959106
Chloroform	U		0.324	5.00	1	03/08/2017 20:09	WG959106
Chloromethane	U		0.276	2.50	1	03/08/2017 20:09	WG959106
2-Chlorotoluene	U		0.375	1.00	1	03/08/2017 20:09	WG959106
4-Chlorotoluene	U		0.351	1.00	1	03/08/2017 20:09	WG959106
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/08/2017 20:09	WG959106
1,2-Dibromoethane	U		0.381	1.00	1	03/08/2017 20:09	WG959106
Dibromomethane	U		0.346	1.00	1	03/08/2017 20:09	WG959106
1,2-Dichlorobenzene	U		0.349	1.00	1	03/08/2017 20:09	WG959106
1,3-Dichlorobenzene	U		0.220	1.00	1	03/08/2017 20:09	WG959106
1,4-Dichlorobenzene	U		0.274	1.00	1	03/08/2017 20:09	WG959106
Dichlorodifluoromethane	U		0.551	5.00	1	03/08/2017 20:09	WG959106
1,1-Dichloroethane	U		0.259	1.00	1	03/08/2017 20:09	WG959106
1,2-Dichloroethane	U		0.361	1.00	1	03/08/2017 20:09	WG959106
1,1-Dichloroethene	U		0.398	1.00	1	03/08/2017 20:09	WG959106
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/08/2017 20:09	WG959106
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/08/2017 20:09	WG959106
1,2-Dichloropropane	U		0.306	1.00	1	03/08/2017 20:09	WG959106



Collected date/time: 03/01/17 14:50

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.352	1.00	1	03/08/2017 20:09	WG959106
1,3-Dichloropropane	U		0.366	1.00	1	03/08/2017 20:09	WG959106
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/08/2017 20:09	WG959106
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/08/2017 20:09	WG959106
2,2-Dichloropropane	U		0.321	1.00	1	03/08/2017 20:09	WG959106
Di-isopropyl ether	U		0.320	1.00	1	03/08/2017 20:09	WG959106
Ethylbenzene	44.0		0.384	1.00	1	03/08/2017 20:09	WG959106
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/08/2017 20:09	WG959106
Isopropylbenzene	51.6		0.326	1.00	1	03/08/2017 20:09	WG959106
p-Isopropyltoluene	4.38		0.350	1.00	1	03/08/2017 20:09	WG959106
2-Butanone (MEK)	U		3.93	10.0	1	03/08/2017 20:09	WG959106
Methylene Chloride	U		1.00	5.00	1	03/08/2017 20:09	WG959106
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	03/08/2017 20:09	WG959106
Methyl tert-butyl ether	U		0.367	1.00	1	03/08/2017 20:09	WG959106
Naphthalene	21.2		1.00	5.00	1	03/08/2017 20:09	WG959106
n-Propylbenzene	190		0.349	1.00	1	03/08/2017 20:09	WG959106
Styrene	U		0.307	1.00	1	03/08/2017 20:09	WG959106
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/08/2017 20:09	WG959106
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/08/2017 20:09	WG959106
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/08/2017 20:09	WG959106
Tetrachloroethene	U		0.372	1.00	1	03/08/2017 20:09	WG959106
Toluene	3.13		0.412	1.00	1	03/08/2017 20:09	WG959106
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/08/2017 20:09	WG959106
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/08/2017 20:09	WG959106
1,1,1-Trichloroethane	U		0.319	1.00	1	03/08/2017 20:09	WG959106
1,1,2-Trichloroethane	U		0.383	1.00	1	03/08/2017 20:09	WG959106
Trichloroethene	U		0.398	1.00	1	03/08/2017 20:09	WG959106
Trichlorofluoromethane	U		1.20	5.00	1	03/08/2017 20:09	WG959106
1,2,3-Trichloropropane	U		0.807	2.50	1	03/08/2017 20:09	WG959106
1,2,4-Trimethylbenzene	468		3.73	10.0	10	03/10/2017 05:58	WG959106
1,2,3-Trimethylbenzene	134		0.321	1.00	1	03/08/2017 20:09	WG959106
1,3,5-Trimethylbenzene	181		0.387	1.00	1	03/08/2017 20:09	WG959106
Vinyl chloride	U		0.259	1.00	1	03/08/2017 20:09	WG959106
Xylenes, Total	120		1.06	3.00	1	03/08/2017 20:09	WG959106
(S) Toluene-d8	101			80.0-120		03/10/2017 05:58	WG959106
(S) Toluene-d8	107			80.0-120		03/08/2017 20:09	WG959106
(S) Dibromofluoromethane	98.0			76.0-123		03/10/2017 05:58	WG959106
(S) Dibromofluoromethane	104			76.0-123		03/08/2017 20:09	WG959106
(S) 4-Bromofluorobenzene	80.4			80.0-120		03/08/2017 20:09	WG959106
(S) 4-Bromofluorobenzene	104			80.0-120		03/10/2017 05:58	WG959106

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	688		165	500	2	03/08/2017 20:12	WG958334
Residual Range Organics (RRO)	U		330	1000	2	03/08/2017 20:12	WG958334
(S) o-Terphenyl	102			52.0-156		03/08/2017 20:12	WG958334

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	03/08/2017 12:37	WG958443
Acenaphthene	0.138		0.0100	0.0500	1	03/08/2017 12:37	WG958443
Acenaphthylene	0.0246	J	0.0120	0.0500	1	03/08/2017 12:37	WG958443
Benzo(a)anthracene	U		0.00410	0.0500	1	03/08/2017 12:37	WG958443



Collected date/time: 03/01/17 14:50

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	U		0.0116	0.0500	1	03/08/2017 12:37	WG958443
Benzo(b)fluoranthene	U		0.00212	0.0500	1	03/08/2017 12:37	WG958443
Benzo(g,h,i)perylene	U		0.00227	0.0500	1	03/08/2017 12:37	WG958443
Benzo(k)fluoranthene	U		0.0136	0.0500	1	03/08/2017 12:37	WG958443
Chrysene	U		0.0108	0.0500	1	03/08/2017 12:37	WG958443
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	03/08/2017 12:37	WG958443
Fluoranthene	U		0.0157	0.0500	1	03/08/2017 12:37	WG958443
Fluorene	0.326		0.00850	0.0500	1	03/08/2017 12:37	WG958443
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	03/08/2017 12:37	WG958443
Naphthalene	16.5		0.0198	0.250	1	03/08/2017 12:37	WG958443
Phenanthrene	0.162		0.00820	0.0500	1	03/08/2017 12:37	WG958443
Pyrene	U		0.0117	0.0500	1	03/08/2017 12:37	WG958443
1-Methylnaphthalene	37.7		0.00821	0.250	1	03/08/2017 12:37	WG958443
2-Methylnaphthalene	57.1		0.00902	0.250	1	03/08/2017 12:37	WG958443
2-Chloronaphthalene	U		0.00647	0.250	1	03/08/2017 12:37	WG958443
(S) Nitrobenzene-d5	145			31.0-160		03/08/2017 12:37	WG958443
(S) 2-Fluorobiphenyl	84.0			48.0-148		03/08/2017 12:37	WG958443
(S) p-Terphenyl-d14	69.1			37.0-146		03/08/2017 12:37	WG958443

1
Cp2
Tc3
Ss4
Cn5
Sr6
Qc7
Gl8
Al9
Sc



Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury,Dissolved	U		0.0490	0.200	1	03/08/2017 19:03	WG958806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Metals (ICP) by Method 6010C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic,Dissolved	U		6.50	10.0	1	03/07/2017 20:28	WG958726
Barium,Dissolved	41.7		1.70	5.00	1	03/07/2017 20:28	WG958726
Cadmium,Dissolved	U		0.700	2.00	1	03/07/2017 20:28	WG958726
Chromium,Dissolved	U		1.40	10.0	1	03/07/2017 20:28	WG958726
Lead,Dissolved	U		1.90	5.00	1	03/07/2017 20:28	WG958726
Selenium,Dissolved	U		7.40	10.0	1	03/07/2017 20:28	WG958726
Silver,Dissolved	U		2.80	5.00	1	03/07/2017 20:28	WG958726

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	5520		31.6	100	1	03/09/2017 18:21	WG957976
(S) a,a,a-Trifluorotoluene(FID) 114				77.0-122		03/09/2017 18:21	WG957976

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	03/08/2017 20:32	WG959106
Acrolein	U	J4	8.87	50.0	1	03/08/2017 20:32	WG959106
Acrylonitrile	U		1.87	10.0	1	03/08/2017 20:32	WG959106
Benzene	5.40		0.331	1.00	1	03/08/2017 20:32	WG959106
Bromobenzene	U		0.352	1.00	1	03/08/2017 20:32	WG959106
Bromodichloromethane	U		0.380	1.00	1	03/08/2017 20:32	WG959106
Bromoform	U		0.469	1.00	1	03/08/2017 20:32	WG959106
Bromomethane	U		0.866	5.00	1	03/08/2017 20:32	WG959106
n-Butylbenzene	14.9		0.361	1.00	1	03/08/2017 20:32	WG959106
sec-Butylbenzene	17.3		0.365	1.00	1	03/08/2017 20:32	WG959106
tert-Butylbenzene	U		0.399	1.00	1	03/08/2017 20:32	WG959106
Carbon tetrachloride	U		0.379	1.00	1	03/08/2017 20:32	WG959106
Chlorobenzene	U		0.348	1.00	1	03/08/2017 20:32	WG959106
Chlorodibromomethane	U		0.327	1.00	1	03/08/2017 20:32	WG959106
Chloroethane	U		0.453	5.00	1	03/08/2017 20:32	WG959106
Chloroform	U		0.324	5.00	1	03/08/2017 20:32	WG959106
Chloromethane	U		0.276	2.50	1	03/08/2017 20:32	WG959106
2-Chlorotoluene	U		0.375	1.00	1	03/08/2017 20:32	WG959106
4-Chlorotoluene	U		0.351	1.00	1	03/08/2017 20:32	WG959106
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	03/08/2017 20:32	WG959106
1,2-Dibromoethane	U		0.381	1.00	1	03/08/2017 20:32	WG959106
Dibromomethane	U		0.346	1.00	1	03/08/2017 20:32	WG959106
1,2-Dichlorobenzene	U		0.349	1.00	1	03/08/2017 20:32	WG959106
1,3-Dichlorobenzene	U		0.220	1.00	1	03/08/2017 20:32	WG959106
1,4-Dichlorobenzene	U		0.274	1.00	1	03/08/2017 20:32	WG959106
Dichlorodifluoromethane	U		0.551	5.00	1	03/08/2017 20:32	WG959106
1,1-Dichloroethane	U		0.259	1.00	1	03/08/2017 20:32	WG959106
1,2-Dichloroethane	U		0.361	1.00	1	03/08/2017 20:32	WG959106
1,1-Dichloroethene	U		0.398	1.00	1	03/08/2017 20:32	WG959106
cis-1,2-Dichloroethene	U		0.260	1.00	1	03/08/2017 20:32	WG959106
trans-1,2-Dichloroethene	U		0.396	1.00	1	03/08/2017 20:32	WG959106
1,2-Dichloropropane	U		0.306	1.00	1	03/08/2017 20:32	WG959106



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.352	1.00	1	03/08/2017 20:32	WG959106
1,3-Dichloropropane	U		0.366	1.00	1	03/08/2017 20:32	WG959106
cis-1,3-Dichloropropene	U		0.418	1.00	1	03/08/2017 20:32	WG959106
trans-1,3-Dichloropropene	U		0.419	1.00	1	03/08/2017 20:32	WG959106
2,2-Dichloropropane	U		0.321	1.00	1	03/08/2017 20:32	WG959106
Di-isopropyl ether	U		0.320	1.00	1	03/08/2017 20:32	WG959106
Ethylbenzene	43.4		0.384	1.00	1	03/08/2017 20:32	WG959106
Hexachloro-1,3-butadiene	U		0.256	1.00	1	03/08/2017 20:32	WG959106
Isopropylbenzene	51.2		0.326	1.00	1	03/08/2017 20:32	WG959106
p-Isopropyltoluene	4.35		0.350	1.00	1	03/08/2017 20:32	WG959106
2-Butanone (MEK)	U		3.93	10.0	1	03/08/2017 20:32	WG959106
Methylene Chloride	U		1.00	5.00	1	03/08/2017 20:32	WG959106
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	03/08/2017 20:32	WG959106
Methyl tert-butyl ether	U		0.367	1.00	1	03/08/2017 20:32	WG959106
Naphthalene	21.8		1.00	5.00	1	03/08/2017 20:32	WG959106
n-Propylbenzene	187		0.349	1.00	1	03/08/2017 20:32	WG959106
Styrene	U		0.307	1.00	1	03/08/2017 20:32	WG959106
1,1,1,2-Tetrachloroethane	U		0.385	1.00	1	03/08/2017 20:32	WG959106
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	03/08/2017 20:32	WG959106
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00	1	03/08/2017 20:32	WG959106
Tetrachloroethene	U		0.372	1.00	1	03/08/2017 20:32	WG959106
Toluene	3.18		0.412	1.00	1	03/08/2017 20:32	WG959106
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/08/2017 20:32	WG959106
1,2,4-Trichlorobenzene	U		0.355	1.00	1	03/08/2017 20:32	WG959106
1,1,1-Trichloroethane	U		0.319	1.00	1	03/08/2017 20:32	WG959106
1,1,2-Trichloroethane	U		0.383	1.00	1	03/08/2017 20:32	WG959106
Trichloroethene	U		0.398	1.00	1	03/08/2017 20:32	WG959106
Trichlorofluoromethane	U		1.20	5.00	1	03/08/2017 20:32	WG959106
1,2,3-Trichloropropane	U		0.807	2.50	1	03/08/2017 20:32	WG959106
1,2,4-Trimethylbenzene	509		3.73	10.0	10	03/10/2017 06:14	WG959106
1,2,3-Trimethylbenzene	139		0.321	1.00	1	03/08/2017 20:32	WG959106
1,3,5-Trimethylbenzene	181		0.387	1.00	1	03/08/2017 20:32	WG959106
Vinyl chloride	U		0.259	1.00	1	03/08/2017 20:32	WG959106
Xylenes, Total	118		1.06	3.00	1	03/08/2017 20:32	WG959106
(S) Toluene-d8	102			80.0-120		03/10/2017 06:14	WG959106
(S) Toluene-d8	107			80.0-120		03/08/2017 20:32	WG959106
(S) Dibromofluoromethane	96.6			76.0-123		03/10/2017 06:14	WG959106
(S) Dibromofluoromethane	103			76.0-123		03/08/2017 20:32	WG959106
(S) 4-Bromofluorobenzene	78.5	J2		80.0-120		03/08/2017 20:32	WG959106
(S) 4-Bromofluorobenzene	105			80.0-120		03/10/2017 06:14	WG959106

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

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	771		165	500	2	03/08/2017 20:28	WG958334
Residual Range Organics (RRO)	U		330	1000	2	03/08/2017 20:28	WG958334
(S) o-Terphenyl	93.6			52.0-156		03/08/2017 20:28	WG958334

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0140	0.0500	1	03/08/2017 13:00	WG958443
Acenaphthene	0.144		0.0100	0.0500	1	03/08/2017 13:00	WG958443
Acenaphthylene	0.0256	J	0.0120	0.0500	1	03/08/2017 13:00	WG958443
Benzo(a)anthracene	U		0.00410	0.0500	1	03/08/2017 13:00	WG958443



Collected date/time: 03/01/17 00:00

L893941

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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzo(a)pyrene	U		0.0116	0.0500	1	03/08/2017 13:00	WG958443
Benzo(b)fluoranthene	U		0.00212	0.0500	1	03/08/2017 13:00	WG958443
Benzo(g,h,i)perylene	U		0.00227	0.0500	1	03/08/2017 13:00	WG958443
Benzo(k)fluoranthene	U		0.0136	0.0500	1	03/08/2017 13:00	WG958443
Chrysene	U		0.0108	0.0500	1	03/08/2017 13:00	WG958443
Dibenz(a,h)anthracene	U		0.00396	0.0500	1	03/08/2017 13:00	WG958443
Fluoranthene	U		0.0157	0.0500	1	03/08/2017 13:00	WG958443
Fluorene	0.339		0.00850	0.0500	1	03/08/2017 13:00	WG958443
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500	1	03/08/2017 13:00	WG958443
Naphthalene	18.3		0.0198	0.250	1	03/08/2017 13:00	WG958443
Phenanthrene	0.160		0.00820	0.0500	1	03/08/2017 13:00	WG958443
Pyrene	U		0.0117	0.0500	1	03/08/2017 13:00	WG958443
1-Methylnaphthalene	40.2		0.00821	0.250	1	03/08/2017 13:00	WG958443
2-Methylnaphthalene	60.8		0.00902	0.250	1	03/08/2017 13:00	WG958443
2-Chloronaphthalene	U		0.00647	0.250	1	03/08/2017 13:00	WG958443
(S) Nitrobenzene-d5	158			31.0-160		03/08/2017 13:00	WG958443
(S) 2-Fluorobiphenyl	98.3			48.0-148		03/08/2017 13:00	WG958443
(S) p-Terphenyl-d14	68.6			37.0-146		03/08/2017 13:00	WG958443

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Method Blank (MB)

(MB) R3201928-1 03/08/17 17:52

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Mercury,Dissolved	U		0.0490	0.200

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

(LCS) R3201928-2 03/08/17 17:54 • (LCSD) R3201928-3 03/08/17 17:57

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	%	%	%			%	%
Mercury,Dissolved	3.00	3.20	3.47	107	116	80-120			8	20

L894310-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L894310-03 03/08/17 17:59 • (MS) R3201928-4 03/08/17 18:01 • (MSD) R3201928-5 03/08/17 18:04

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury,Dissolved	3.00	U	4.04	3.97	135	132	1	75-125	J5	J5	2	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3201617-1 03/07/17 20:04

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic,Dissolved	U		6.50	10.0
Barium,Dissolved	U		1.70	5.00
Cadmium,Dissolved	U		0.700	2.00
Chromium,Dissolved	U		1.40	10.0
Lead,Dissolved	U		1.90	5.00
Selenium,Dissolved	U		7.40	10.0
Silver,Dissolved	U		2.80	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

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

(LCS) R3201617-2 03/07/17 20:07 • (LCSD) R3201617-3 03/07/17 20:09

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	1010	1010	101	101	80-120			1	20
Barium,Dissolved	1000	1010	1010	101	101	80-120			0	20
Cadmium,Dissolved	1000	1010	1010	101	101	80-120			0	20
Chromium,Dissolved	1000	1040	1030	104	103	80-120			0	20
Lead,Dissolved	1000	1030	1020	103	102	80-120			1	20
Selenium,Dissolved	1000	1020	1010	102	101	80-120			1	20
Silver,Dissolved	200	194	193	97	96	80-120			0	20

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L893941-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893941-03 03/07/17 20:12 • (MS) R3201617-5 03/07/17 20:17 • (MSD) R3201617-6 03/07/17 20:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	1000	U	1030	1020	103	102	1	75-125			1	20
Barium,Dissolved	1000	39.9	1030	1020	99	98	1	75-125			1	20
Cadmium,Dissolved	1000	U	1010	1000	101	100	1	75-125			1	20
Chromium,Dissolved	1000	U	1020	1010	102	101	1	75-125			1	20
Lead,Dissolved	1000	U	1040	1020	104	102	1	75-125			1	20
Selenium,Dissolved	1000	U	1020	1010	102	101	1	75-125			1	20
Silver,Dissolved	200	U	193	191	96	95	1	75-125			1	20

Method Blank (MB)

(MB) R3202669-3 03/09/17 01:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	95.0			77.0-122

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

(LCS) R3202669-1 03/09/17 00:07 • (LCSD) R3202669-2 03/09/17 00:29

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Gasoline Range Organics-NWTPH	5500	5670	5560	103	101	72.0-134			1.97	20
(S) a,a,a-Trifluorotoluene(FID)				105	105	77.0-122				

L893938-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L893938-01 03/09/17 08:31 • (MS) R3202669-4 03/09/17 08:53 • (MSD) R3202669-5 03/09/17 09:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Gasoline Range Organics-NWTPH	5500	2680	7670	9870	90.7	131	1	23.0-159		J3	25.1	20
(S) a,a,a-Trifluorotoluene(FID)					111	109		77.0-122				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3202017-3 03/08/17 16:41

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Acetone	U		10.0	50.0
Acrolein	U		8.87	50.0
Acrylonitrile	U		1.87	10.0
Benzene	U		0.331	1.00
Bromobenzene	U		0.352	1.00
Bromodichloromethane	U		0.380	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
n-Butylbenzene	U		0.361	1.00
sec-Butylbenzene	U		0.365	1.00
tert-Butylbenzene	U		0.399	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
2-Chlorotoluene	U		0.375	1.00
4-Chlorotoluene	U		0.351	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
Dibromomethane	U		0.346	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
1,1-Dichloropropene	U		0.352	1.00
1,3-Dichloropropane	U		0.366	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
2,2-Dichloropropane	U		0.321	1.00
Di-isopropyl ether	U		0.320	1.00
Ethylbenzene	U		0.384	1.00
Hexachloro-1,3-butadiene	U		0.256	1.00

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

[L893941-03,12,14](#)

Method Blank (MB)

(MB) R3202017-3 03/08/17 16:41

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Isopropylbenzene	U		0.326	1.00
p-Isopropyltoluene	U		0.350	1.00
2-Butanone (MEK)	U		3.93	10.0
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.349	1.00
Styrene	U		0.307	1.00
1,1,1,2-Tetrachloroethane	U		0.385	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
Tetrachloroethene	U		0.372	1.00
Toluene	U		0.412	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
1,2,3-Trimethylbenzene	U		0.321	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
1,2,3-Trichloropropane	U		0.807	2.50
1,2,4-Trimethylbenzene	U		0.373	1.00
1,3,5-Trimethylbenzene	U		0.387	1.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	98.2			80.0-120
(S) Dibromofluoromethane	108			76.0-123
(S) 4-Bromofluorobenzene	94.6			80.0-120

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

(LCS) R3202017-1 03/08/17 15:10 • (LCSD) R3202017-2 03/08/17 15:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	173	182	138	146	10.0-160			5.53	23
Acrolein	125	269	278	215	223	10.0-160	J4	J4	3.26	20
Benzene	25.0	26.8	27.4	107	110	69.0-123			2.21	20
Acrylonitrile	125	127	133	101	107	60.0-142			5.18	20

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

(LCS) R3202017-1 03/08/17 15:10 • (LCSD) R3202017-2 03/08/17 15:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	25.0	25.5	25.5	102	102	79.0-120			0.230	20
Bromodichloromethane	25.0	24.6	24.7	98.2	98.6	76.0-120			0.400	20
Bromoform	25.0	25.9	26.0	104	104	67.0-132			0.130	20
Bromomethane	25.0	30.8	30.5	123	122	18.0-160			1.02	20
n-Butylbenzene	25.0	27.1	28.2	109	113	72.0-126			3.82	20
sec-Butylbenzene	25.0	26.6	26.5	106	106	74.0-121			0.370	20
tert-Butylbenzene	25.0	27.0	26.9	108	107	75.0-122			0.610	20
Carbon tetrachloride	25.0	26.7	27.3	107	109	63.0-122			2.01	20
Chlorobenzene	25.0	28.3	28.4	113	114	79.0-121			0.250	20
Chlorodibromomethane	25.0	27.9	27.5	112	110	75.0-125			1.28	20
Chloroethane	25.0	33.3	33.6	133	135	47.0-152			0.970	20
Chloroform	25.0	26.2	26.5	105	106	72.0-121			1.26	20
Chloromethane	25.0	23.2	24.4	92.8	97.8	48.0-139			5.24	20
2-Chlorotoluene	25.0	27.4	27.0	110	108	74.0-122			1.56	20
4-Chlorotoluene	25.0	27.1	26.9	108	108	79.0-120			0.620	20
1,2-Dibromo-3-Chloropropane	25.0	25.4	27.2	102	109	64.0-127			6.87	20
1,2-Dibromoethane	25.0	27.2	27.1	109	108	77.0-123			0.340	20
Dibromomethane	25.0	26.1	26.2	104	105	78.0-120			0.220	20
1,2-Dichlorobenzene	25.0	27.6	28.3	110	113	80.0-120			2.76	20
1,3-Dichlorobenzene	25.0	26.5	26.3	106	105	72.0-123			0.610	20
1,4-Dichlorobenzene	25.0	27.1	27.8	108	111	77.0-120			2.52	20
Dichlorodifluoromethane	25.0	34.3	34.5	137	138	49.0-155			0.780	20
1,1-Dichloroethane	25.0	26.3	26.5	105	106	70.0-126			0.640	20
1,2-Dichloroethane	25.0	27.5	27.9	110	112	67.0-126			1.48	20
1,1-Dichloroethene	25.0	26.9	27.1	108	109	64.0-129			0.770	20
cis-1,2-Dichloroethene	25.0	26.1	26.5	104	106	73.0-120			1.64	20
trans-1,2-Dichloroethene	25.0	27.1	27.7	109	111	71.0-121			1.87	20
1,2-Dichloropropane	25.0	25.8	25.5	103	102	75.0-125			1.02	20
1,1-Dichloropropene	25.0	28.2	28.7	113	115	71.0-129			1.51	20
1,3-Dichloropropane	25.0	27.4	27.5	110	110	80.0-121			0.0300	20
cis-1,3-Dichloropropene	25.0	27.8	27.6	111	111	79.0-123			0.620	20
trans-1,3-Dichloropropene	25.0	25.8	26.3	103	105	74.0-127			2.02	20
2,2-Dichloropropane	25.0	25.6	25.9	103	103	60.0-125			0.850	20
Di-isopropyl ether	25.0	23.8	24.5	95.3	98.0	59.0-133			2.81	20
Ethylbenzene	25.0	28.0	27.5	112	110	77.0-120			1.64	20
Hexachloro-1,3-butadiene	25.0	27.3	27.7	109	111	64.0-131			1.46	20
Isopropylbenzene	25.0	27.5	27.2	110	109	75.0-120			1.11	20
p-Isopropyltoluene	25.0	27.8	27.8	111	111	74.0-126			0.0100	20
2-Butanone (MEK)	125	150	155	120	124	37.0-158			3.55	20
Methyl tert-butyl ether	25.0	23.8	24.5	95.3	98.1	64.0-123			2.86	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



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

(LCS) R3202017-1 03/08/17 15:10 • (LCSD) R3202017-2 03/08/17 15:33

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methylene Chloride	25.0	24.2	24.9	97.0	99.8	66.0-121			2.84	20
4-Methyl-2-pentanone (MIBK)	125	136	140	109	112	59.0-143			2.32	20
Naphthalene	25.0	26.2	27.6	105	110	62.0-128			5.15	20
n-Propylbenzene	25.0	27.7	27.4	111	109	79.0-120			1.30	20
Styrene	25.0	28.4	28.3	114	113	78.0-124			0.550	20
1,1,1,2-Tetrachloroethane	25.0	25.8	25.3	103	101	75.0-122			2.00	20
1,1,2,2-Tetrachloroethane	25.0	24.4	24.1	97.8	96.3	71.0-122			1.49	20
Tetrachloroethene	25.0	27.5	27.3	110	109	70.0-127			0.770	20
Toluene	25.0	26.0	26.1	104	104	77.0-120			0.260	20
1,1,2-Trichlorotrifluoroethane	25.0	30.8	31.3	123	125	61.0-136			1.43	20
1,2,3-Trichlorobenzene	25.0	25.9	26.5	104	106	61.0-133			2.10	20
1,2,4-Trichlorobenzene	25.0	26.0	26.9	104	108	69.0-129			3.51	20
1,1,1-Trichloroethane	25.0	27.5	27.8	110	111	68.0-122			1.12	20
1,1,2-Trichloroethane	25.0	26.4	26.2	106	105	78.0-120			0.730	20
Trichloroethene	25.0	27.4	27.7	110	111	78.0-120			0.850	20
Trichlorofluoromethane	25.0	33.5	33.6	134	135	56.0-137			0.590	20
1,2,3-Trichloropropane	25.0	26.0	26.1	104	105	72.0-124			0.490	20
1,2,3-Trimethylbenzene	25.0	27.6	27.9	110	112	75.0-120			1.43	20
1,2,4-Trimethylbenzene	25.0	27.4	27.4	110	110	75.0-120			0.140	20
1,3,5-Trimethylbenzene	25.0	26.6	26.5	107	106	75.0-120			0.390	20
Xylenes, Total	75.0	82.3	81.3	110	108	77.0-120			1.22	20
Vinyl chloride	25.0	31.6	31.3	126	125	64.0-133			1.05	20
(S) Toluene-d8				102	102	80.0-120				
(S) Dibromofluoromethane				104	106	76.0-123				
(S) 4-Bromofluorobenzene				98.7	97.2	80.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3202100-1 03/08/17 00:34

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		83.3	250
Residual Range Organics (RRO)	U		167	500
(S) o-Terphenyl	124			52.0-156

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

(LCS) R3202100-2 03/08/17 00:50 • (LCSD) R3202100-3 03/08/17 01:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	750	1040	1080	139	144	50.0-150			3.11	20
Residual Range Organics (RRO)	750	808	859	108	115	50.0-150			6.16	20
(S) o-Terphenyl				125	125	52.0-156				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3201844-3 03/08/17 04:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0140	0.0500
Acenaphthene	U		0.0100	0.0500
Acenaphthylene	U		0.0120	0.0500
Benzo(a)anthracene	0.00642	J	0.00410	0.0500
Benzo(a)pyrene	U		0.0116	0.0500
Benzo(b)fluoranthene	U		0.00212	0.0500
Benzo(g,h,i)perylene	U		0.00227	0.0500
Benzo(k)fluoranthene	U		0.0136	0.0500
Chrysene	U		0.0108	0.0500
Dibenz(a,h)anthracene	U		0.00396	0.0500
Fluoranthene	U		0.0157	0.0500
Fluorene	U		0.00850	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0148	0.0500
Naphthalene	0.0213	J	0.0198	0.250
Phenanthrene	U		0.00820	0.0500
Pyrene	U		0.0117	0.0500
1-Methylnaphthalene	U		0.00821	0.250
2-Methylnaphthalene	U		0.00902	0.250
2-Chloronaphthalene	U		0.00647	0.250
(S) Nitrobenzene-d5	147			31.0-160
(S) 2-Fluorobiphenyl	97.9			48.0-148
(S) p-Terphenyl-d14	90.4			37.0-146

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

(LCS) R3201844-1 03/08/17 03:30 • (LCSD) R3201844-2 03/08/17 03:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.77	1.89	88.7	94.6	64.0-142			6.41	20
Acenaphthene	2.00	1.97	1.89	98.5	94.5	66.0-132			4.20	20
Acenaphthylene	2.00	1.90	1.81	94.9	90.7	65.0-132			4.47	20
Benzo(a)anthracene	2.00	2.07	2.01	104	101	59.0-134			2.83	20
Benzo(a)pyrene	2.00	2.08	2.08	104	104	61.0-145			0.0100	20
Benzo(b)fluoranthene	2.00	2.18	1.93	109	96.4	57.0-136			12.4	20
Benzo(g,h,i)perylene	2.00	1.92	1.82	95.9	91.1	54.0-140			5.20	20
Benzo(k)fluoranthene	2.00	2.14	2.00	107	100	57.0-141			6.35	20
Chrysene	2.00	1.99	1.93	99.7	96.7	63.0-140			3.04	20
Dibenz(a,h)anthracene	2.00	1.96	1.81	98.1	90.6	49.0-141			8.03	20
Fluoranthene	2.00	2.13	2.28	107	114	65.0-143			6.57	20

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

(LCS) R3201844-1 03/08/17 03:30 • (LCSD) R3201844-2 03/08/17 03:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	2.06	2.02	103	101	64.0-129			1.91	20
Indeno(1,2,3-cd)pyrene	2.00	1.97	1.85	98.4	92.5	53.0-141			6.16	20
Naphthalene	2.00	1.92	1.82	96.0	90.8	68.0-129			5.58	20
Phenanthrene	2.00	1.91	1.88	95.3	93.9	62.0-132			1.40	20
Pyrene	2.00	1.74	1.84	86.8	92.0	58.0-156			5.85	20
1-Methylnaphthalene	2.00	2.21	2.07	110	103	68.0-137			6.55	20
2-Methylnaphthalene	2.00	2.03	1.91	102	95.7	68.0-134			6.08	20
2-Chloronaphthalene	2.00	1.85	1.82	92.7	90.8	65.0-129			2.11	20
(S) Nitrobenzene-d5				151	128	31.0-160				
(S) 2-Fluorobiphenyl				99.1	95.1	48.0-148				
(S) p-Terphenyl-d14				93.4	92.3	37.0-146				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
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.
(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.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

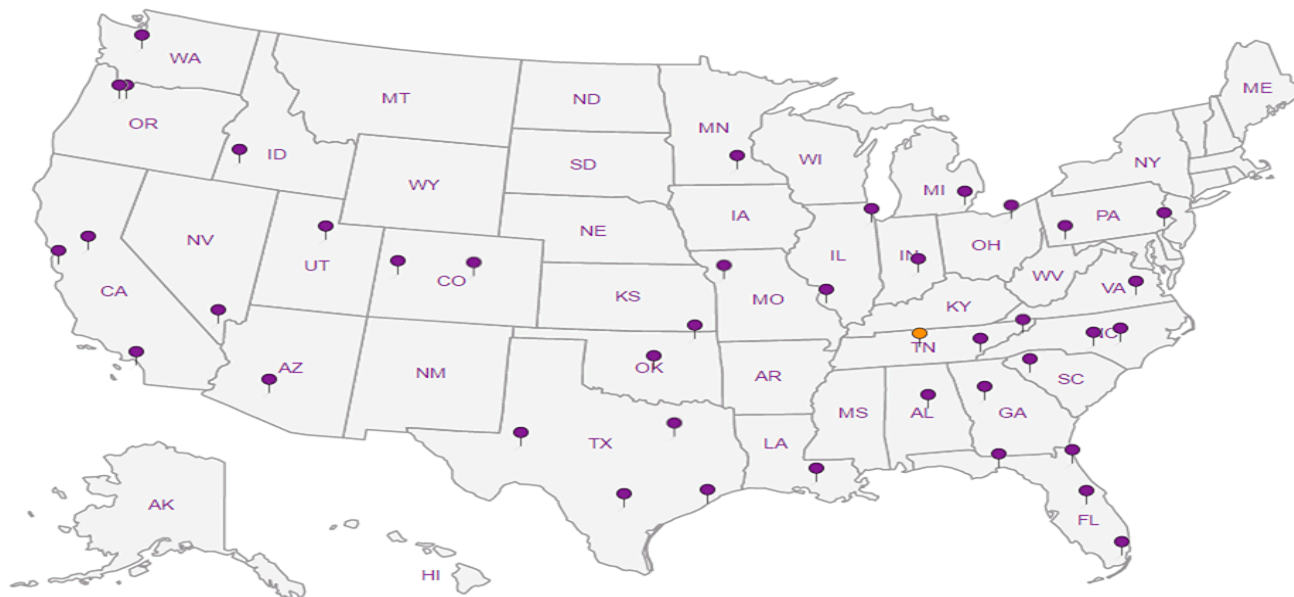
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

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

Third Party & Federal Accreditations

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

ES&C Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ES&C Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
Kennedy Jenks - BNSF Region 1
 32001 32nd Ave South, Suite 100
 Federal Way, WA 98001

Billing Information:
 Scott MacDonald
 2454 Occidental Ave S, Ste 1A
 Seattle, WA 98134
 Accounts Payable
 32001 32nd Ave S, Suite 100
 Federal Way, WA 98001

Report to: **Julia Schwarz,**
John Jindra **Nathan Moxley**

Email To: **johnjindra@kennedyjenks.com**

Project: **BNSF - Occidental/Lander St**
 Description: **Midas Fountain**

City/State Collected: **Seattle, WA**

Phone: **253-835-6400**

Client Project #

Lab Project #

Fax:

TT0098-N01

BNSF1KEN-O&L

1696059-00

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Date Results Needed

Immediately
 Packed on Ice N Y X

Same Day200%
 Next Day100%
 Two Day50%
 Three Day25%

Email? No X Yes
 FAX? X No Yes

No. of
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH-G	TPH-D	TPH-E	TPH-F	TPH-G	TPH-H	TPH-I	TPH-J	TPH-K	TPH-L	TPH-M	TPH-N	TPH-O	TPH-P	TPH-Q	TPH-R	TPH-S	TPH-T	TPH-U	TPH-V	TPH-W	TPH-X	TPH-Y	TPH-Z
B-1 (10.0-11.0)	Grab	GWSS	10.0-11.0	3/1/17	1015	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-1 (19.0-20.0)	Grab	GWSS	19.0-20.0		1020	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-1	Grab	GW			1035	9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-2 (13.0-14.0)	Grab	GWSS	13.0-14.0		1230	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-2 (19.0-20.0)	Grab	GWSS	19.0-20.0		1240	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-3 (6.0-7.0)	Grab	GWSS	6.0-7.0		1305	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-3 (14.0-15.0)	Grab	GWSS	14.0-15.0		1315	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-4 (6.0-7.0)	Grab	GWSS	6.0-7.0		1345	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-4 (11.0-12.0)	Grab	GWSS	11.0-12.0		1350	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B-5 (12.0-13.0)	Grab	GWSS	12.0-13.0	✓	1430	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other
 Remarks: **10 GW samples for metals need to be filtered prior to analysis**
2. No silica gel cleanup for diesel analysis

Relinquished by: (Signature) **[Signature]** Date: **3/3/17** Time: **1130**
 Relinquished by: (Signature) **[Signature]** Date: **3/3/17** Time: **1130**
 Relinquished by: (Signature) **[Signature]** Date: **3/3/17** Time: **1130**

pH Temp
 Flow Other

Samples returned via: ☐ UPS
☐ FedEx ☐ Courier ☐
 Temp: 27 °C Bottles Received: **86 + TB**
 Date: **3-4-17** Time: **900**

Hold #
 Condition: **mws0** (lab use only) **02**
 COC Seal Intact: Y N NA
 pH Checked: NCF:

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

ESC
 L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859

QR Code

L# **893941**

F005

Account: **BNSF1KEN**

Template:

Prelogin:

TSR:

Cooler:

Shipped Via:

Item/Contaminant Sample # (lab only)

	61
	02
	03
	04
	05
	06
	07
	08
	09
	10

Company Name/Address:
Kennedy Jenks - BNSF Region 1

32001 32nd Ave South, Suite 100
Federal Way, WA 98001

Billing Information:
Scott MacDonald
2454 Occidental Ave S, Ste 1A
Seattle, WA 98134
Accounts Payable
32001 32nd Ave S, Suite 100
Federal Way, WA 98001

Report to:
John Jindra

Julia Schwarz,
Nathan Moxley

Email To:
johnjindra@kennedyjenks.com

Project Description:
BNSF Occidental/Lander St
Midas Fault/Heray

City/State Collected:
Seattle, WA

Phone: 253-835-6400
Fax:

Client Project #
TT0098-N01
1696059-00

Lab Project #
BNSF1KEN-0&L

Collected by (print):
Nathan Moxley

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
Same Day200%
Next Day100%
Two Day50%
Three Day25%

Date Results Needed

Immediately Packed on Ice N ☐ Y ☒

Email? ☐ No ☒ Yes
FAX? ☒ No ☐ Yes

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time														
B-5 (19.0-20.0)	Grab	GWSS	19.0-20.0	3/1/17	1440	5	X	X	X	X									
B-5	Grab	GW			1450	9	X	X	X	X	X	X	X						
Dp-1-50.1	Grab	GWSS				5	X	X	X	X	X	X	X						
Dp-1-GW	Grab	GW				9	X	X	X	X	X	X	X						
	Grab	GW																	
	Grab	GW																	
	Grab	GW																	
	Grab	GW																	
	Grab	GW																	
	Grab	GW																	
	Grab	GW																	

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp
Flow Other

Remarks:

Relinquished by: (Signature) Date: 3/3/17 Time: 1130
Relinquished by: (Signature) Date: Time:
Relinquished by: (Signature) Date: Time:

Received by: (Signature)
Received by: (Signature)
Received for lab by: (Signature)

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐
Temp: 2.7 °C Bottles Received: 86 TBS
Date: 3-4-17 Time: 900

Condition: (lab use only)
COC Seal Intact: Y N NA
pH Checked: NCF:

Chain of Custody Page 2 of 2

ESC
L.A.B S.C.I.E.N.C.E.S.
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

QR Code

L# 843941
Table #
Acctnum: BNSF1KEN
Template:
Prelogin:
TSR:
Cooler:
Shipped Via:
Rem./Contaminant Sample # (lab only)
11
12
13
17

ESC LAB SCIENCES Cooler Receipt Form

Client: <i>Ken Sarawat</i>		SDG# <i>893941</i>	
Cooler Received/Opened On: <i>3/ 4 /17</i>		Temperature: <i>2.7</i>	
Received By: Nadiar Yakob			
Signature: <i>[Signature]</i>			
Receipt Check List			
	NP	Yes	No
COC Seal Present / Intact?	☒		
COC Signed / Accurate?		☒	
Bottles arrive intact?		☒	
Correct bottles used?		☒	
Sufficient volume sent?		☒	
If Applicable			
VOA Zero headspace?		☒	
Preservation Correct / Checked?			

Appendix I

Data Validation Summary

DATA VALIDATION SUMMARY – L893941
MARCH 2017 SAMPLING EVENT
Midas Fauntleroy

Laboratory Report included in Data Validation	Report Date	Sample IDs
ESC L893941 Includes: NWTPHGX, VOCs, RCRA total metals, NWTPHDX, SVOCs, and PCBs A revised report was issued for the water results to report the water analytical results to the method detection limit.	15 March 2017 17 April 2017	Soil Samples: B-1 (11.0-12.0), B-1 (19.0-20.0), B-2 (13.0-14.0), B-2 (19.0-20.0), B-3 (6.0-7.0), B-3 (14.0-15.0), B-4 (6.0-7.0), B-4 (11.0-12.0), B-5 (12.0-13.0), B-5 (19.0-20.0) Aqueous Samples: B-1, B-5 Field Duplicates: DUP-1-SOIL, DUP-1-GW

Criteria	(Yes or No)	Comment
<u>Chain-of-Custody</u> – Chain-of-custody protocol followed?	Yes	
<u>Temperature Blank</u> – Sample temperature criteria met?	Yes	Samples arrived at a temperature of 2.7 degrees Celsius (°C), which is within the recommended temperature of 4°C ± 2°C.
<u>Holding times</u> – Samples analyzed within specified holding time?	Yes	
<u>Laboratory method blank samples</u> – Analytes present in method blank samples?	Yes	See Note 1 below.
<u>Field/Equipment blank samples</u> – Analytes present in field/equipment blank samples?	Not applicable	No field/equipment blank samples were submitted with this batch of samples.
<u>Trip blank samples</u> – Analytes present in trip blank samples?	Not applicable	No trip blank samples were submitted with this batch of samples.
<u>Matrix spikes/matrix spike duplicate samples</u> – Control limits met?	No	See Note 2 below.
<u>Surrogate percent recoveries</u> – Control limits met?	Yes	Note: For surrogates recoveries qualified by the laboratory as J7, the assessment of these surrogates is not applicable given the sample was analyzed at a dilution.
<u>Laboratory control sample</u> – Control limits met?	No	See Note 3 below.
<u>Laboratory duplicate samples (if applicable)</u> – Control limits met?	Not applicable	No laboratory duplicate samples were analyzed with this batch of samples.
<u>Field duplicate samples (if submitted)</u> – Relative percent differences within control limits?	No	Sample DUP-1-SOIL is a duplicate of sample B-5 (12.0-13.0), and sample DUP-1-GW is a duplicate of sample B-5. Relative percent differences for DUP-1-GW/B-5 were less than 25 percent. See Note 4 below.

NOTES:

1. Naphthalene and benzo(a)anthracene were detected in the SVOC method blank sample for batch WG958443 at concentrations of 0.0213J and 0.00642J µg/L, respectively. As benzo(a)anthracene was not detected in the associated samples and naphthalene was detected at a concentration greater than the method reporting limit and the method blank concentration, no action was taken.
2. The percent recovery for mercury in the matrix spike samples for batch WG958806 was above the laboratory control limit. As the spiked sample was not a site-specific sample and mercury was not detected in the samples associated with this batch, no action was taken.

DATA VALIDATION SUMMARY – L893941
MARCH 2017 SAMPLING EVENT
Midas Fauntleroy

The relative percent differences for several of the PAHs for the SVOC matrix spike samples [sample B-1 (19.0-20.0)] for batch WG959087 were above the laboratory control limits. As the percent recoveries of these compounds for the matrix spike samples were within the control limits, no action was taken.

The percent recovery of chloroethane in the matrix spike duplicate sample for batch WG959350 was below the laboratory control limit; the relative percent difference for trichlorofluoromethane was also outside the control limit. As the the spiked sample was not a site-specific sample, no action was taken.

The relative percent difference for gasoline range organics in the matrix spike samples for batch WG957976 was above the laboratory control limit. As the the spiked sample was not a site-specific sample and percent recovery of gasoline range organics for the individual matrix spike samples was within the control limit, no action was taken.

The relative percent difference for xylenes in the BTEX matrix spike samples for batch WG958676 was above the laboratory control limit. As the the spiked sample was not a site-specific sample and percent recovery of xylene for the individual matrix spike samples was within the control limit, no action was taken.

The percent recovery of toluene in the VOC matrix spike sample for batch WG959355 was below the laboratory control limit; the relative percent differences for the BTEX compounds were also outside the control limits. As the the spiked sample was not a site-specific sample, no action was taken.

3. The percent recovery of acrolein in the VOC laboratory control samples for batch WG959106 was above the laboratory control limit. As acrolein was not detected in the associated samples, no action was taken. The relative percent differences for PCB 1260 and PCB 1016 for the PCB laboratory control samples for batch WG958814 were above the laboratory control limits. As the percent recoveries of these compounds in the individual laboratory control samples were within the control limits, no action was taken.
4. The relative percent differences for several compounds for the soil duplicate [DUP-1-SOIL/B-5 (12.0-13.0)] were above the control limit of 50 percent for soil. In some instances a compound was detected in the duplicate sample but not in the parent sample. Given the non-homogeneity of soils, high relative percent differences are not uncommon. No action is taken on duplicate sample results alone.

SUMMARY

Overall, the findings with respect to the quality assurance/quality control (QA/QC) data do not adversely affect the use of the analytical results.